

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

C Number: C62408
Lock Date: 07/30/1997
Cage Range: All
Date Range: All
Reasons For Removal: All
Removal Date Range: All
Treatment Groups: All
Study Gender: Both
PWG Approval Date: 01/13/1999

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 646

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74933

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla [Pheochromocytoma Malignant TGLS = 3-22]		Pheochromocytoma Malignant	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney [Nephropathy TGLS = 4-5]		Inflammation	Chronic, Mild
		Nephropathy	Moderate
Mesentery [Accessory Spleen TGLS = 2-21]		Accessory Spleen	
* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland [Adenoma TGLS = 7-1]	Pars Distalis	Adenoma	
* Prostate		Inflammation	Chronic, Mild
* Stomach, Forestomach [Diverticulum TGLS = 6-4]		Diverticulum	
* Testes	Germinal Epith	Atrophy	Minimal

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 2	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76505

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Inflammation	Chronic, Moderate
		Nephropathy	Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
[Hepatodiaphragmatic Nodule TGLS = 4-23]			
[Hyperplasia TGLS = 5-6]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
* Preputial Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 3-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 2

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76505

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76506

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Pituitary Gland

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
[Cataract TGLS = 1-21]			
* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Mild
[Fibrosis TGLS = 3-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thymus		Thymoma Malignant	

Note: THYMIC TUMOR CODED AS "MALIGNANT THYMOMA" ACTUALLY APPEARS TO BE A SQUAMOUS CELL CARCINOMA; MORPHOLOGY NOT AVAILABLE ON TDMS.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76506

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 5	TRT#: 1 DOSE: 0 PPM	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 96-76861
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Angiectasis	Mild
		Degeneration	Cystic, Mild
	Bile Duct	Eosinophilic Focus	
		Hyperplasia	Marked
		Leukemia Mononuclear	
	[Eosinophilic Focus TGLS = 5-6]		
	[Leukemia Mononuclear TGLS = 4,5-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
	[Fibrosis TGLS = 1-21]		
	[Leukemia Mononuclear TGLS = 2-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 3-7]		

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 6	TRT#: 1	SEX: Male	DAY ON TEST: 686
	DOSE: 0 PPM	DISP: Moribund Sacrifice	HISTO: 96-75227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Necrosis	Mild
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
		[Leukemia Mononuclear TGLS = 6-5]	
		[Pigmentation TGLS = 6-5]	
* Liver		Degeneration	Cystic, Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-6]	
* Lung		Leukemia Mononuclear	
	Lymph Node	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-21]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Hemorrhage	Mild
		[Hemorrhage TGLS = 8-5]	
* Preputial Gland		Inflammation	Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 6	TRT#: 1	SEX: Male	DAY ON TEST: 686
	DOSE: 0 PPM	DISP: Moribund Sacrifice	HISTO: 96-75227

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
		Necrosis	Marked
	[Leukemia Mononuclear TGLS = 2-6]		
	[Necrosis TGLS = 7-22]		
* Stomach, Forestomach		Edema	Moderate
		Ulcer	Marked
	[Ulcer TGLS = 4-23]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 7	TRT#: 1 DOSE: 0 PPM	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 96-76862
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Bone Marrow | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Parathyroid Gland | * Preputial Gland | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--------------------------------------|---------------------------|-----------------------------------|---------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | Moderate |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Brain | | Astrocytoma Malignant | |
| [Astrocytoma Malignant TGLS = 4-1] | | | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Inflammation | Chronic, Mild |
| | | Nephropathy | Moderate |
| * Liver | | Basophilic Focus | |
| | Bile Duct | Hyperplasia | Mild |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| * Mammary Gland | | Hyperplasia | Moderate |
| [Hyperplasia TGLS = 1-8] | | | |
| * Nose | | Inflammation | Chronic, Minimal |
| * Pancreas | | Atrophy | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLS = 5-1] | | | |
| * Prostate | | Inflammation | Chronic, Mild |
| * Testes | Bilateral, Interstit Cell | Adenoma | |
| [Adenoma TGLS = 2-7] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 8	TRT#: 1	SEX: Male	DAY ON TEST: 406
	DOSE: 0 PPM	DISP: Natural Death	HISTO: 95-73728

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Hematopoietic Cell Proliferation	Mild
	Bile Duct	Hyperplasia	Minimal
	Centrilobular	Necrosis	Mild
Lymph Node	Mediastinal	Hemorrhage	Mild
	Mediastinal	Hyperplasia	Lymphoid, Mild
		[Hemorrhage TGLS = 7-3]	
		[Hyperplasia TGLS = 7-3]	
* Nose		Inflammation	Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
	Note: FUNGAL ORGANISMS IN NOSE CAVITY.		
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Prostate		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Hemangiosarcoma	
		[Hemangiosarcoma TGLS = 1-21]	
* Spleen		Hematopoietic Cell Proliferation	Moderate
		[Hematopoietic Cell Proliferation TGLS = 4-6]	
* Stomach, Glandular		Erosion	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 8	TRT#: 1	SEX: Male	DAY ON TEST: 406
	DOSE: 0 PPM	DISP: Natural Death	HISTO: 95-73728

ORGAN AND ACCOUNTABLE SITE STATUS

[Erosion TGLS = 8-4]			
* Testes	Germinal Epith	Atrophy	Moderate
[Atrophy TGLS = 2-7]			
PRIMARY CAUSE OF DEATH	- Skin Subcut Tiss Hemangiosarcoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 284

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 95-72682

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	Ear
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-1]			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 3-21]			
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-22]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-6]			
* Stom Gland			
Note: MINIMAL FOCUS OF NECROSIS IN MUCOSA; POSSIBLY SECONDARY TO LEUKEMIA			
* Stomach, Forestomach		Edema	Mild
		Ulcer	Moderate
[Ulcer TGLS = 6-23]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76863

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Esophagus	* Lymph Node, Mandibular
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OBSERVATIONS

* Epididymis		Atypia Cellular	Mild
Eye		Atrophy	Marked
[Atrophy TGLS = 1-21]			
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
* Pancreas		Atrophy	Moderate
* Prostate		Fibrosis	Mild
	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
		Pigmentation	Moderate
[Fibrosis TGLS = 2-22]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 11	TRT#: 1	SEX: Male	DAY ON TEST: 730
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76863

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 3-7]	Bilateral, Interstit Cell	Adenoma
* Thyroid Gland	C Cell	Adenoma
PRIMARY CAUSE OF DEATH	-	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 599

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74646

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Bone | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Nose | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|------------------------|-------------------------------------|----------------------|-----------------|
| * Adrenal Cortex | | Degeneration | Fatty, Moderate |
| | | Hypertrophy | Focal, Moderate |
| | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Brain | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Moderate |
| * Kidney | | Leukemia Mononuclear | |
| | | Nephropathy | Mild |
| | [Leukemia Mononuclear TGLS = 5-5] | | |
| * Liver | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 4-6] | | |
| * Lung | | Leukemia Mononuclear | |
| * Mammary Gland | | Hyperplasia | Moderate |
| * Pancreas | | Atrophy | Minimal |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 2-6] | | |
| * Stomach, Forestomach | | Ulcer | Moderate |
| | [Ulcer TGLS = 6-4-2] | | |
| * Testes | Bilateral, Interstit Cell | Adenoma | |
| | [Adenoma TGLS = 1-7] | | |

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 052111-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 122

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 95-71215

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
Skeletal Muscle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Liver		Hematopoietic Cell Proliferation	Mild
* Lung		Inflammation	Chronic, Mild
* Preputial Gland		Inflammation	Chronic, Minimal
* Prostate		Inflammation	Chronic, Minimal
* Skin	Subcut Tiss	Sarcoma	
[Sarcoma TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74629

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Moderate
* Kidney		Nephropathy	Minimal
* Pancreas		Atrophy	Minimal
* Preputial Gland		Carcinoma	
Note: PORTION OF CARCINOMA IS ON SLIDE 8.			
[Carcinoma TGLS = 1-21]			
* Prostate		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
[Hematopoietic Cell Proliferation TGLS = 3-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

- Preputial Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76507

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Note: PHEOCHROM BGN PRESENT IN GLANDS ON SLIDES 10 AND 22. [Pheochromocytoma Benign TGLS = 4-22]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Moderate
[Atrophy TGLS = 5-7]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
* Preputial Gland		Carcinoma	
		Inflammation	Chronic, Mild
[Carcinoma TGLS = 1-21]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76507

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 472

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 95-73918

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Thymus

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-21]		
	[Leukemia Mononuclear TGLS = 2-7]		
	[Leukemia Mononuclear TGLS = 4-3]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Preputial Gland		Adenoma	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 472

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 95-73918

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration Hypertrophy	Moderate Fatty, Mild Focal, Mild
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation Nephropathy	Chronic, Moderate Mild
* Liver		Basophilic Focus Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia Mixed Cell Focus	Mild
[Basophilic Focus TGLS = 4-6]			
[Mixed Cell Focus TGLS = 3-6]			
* Nose		Inflammation	Chronic, Minimal
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76864

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
Note: AORTA IS ON SLIDE 5.			
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76865

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration Hypertrophy Hyperplasia Compression	Moderate Fatty, Mild Focal, Mild Minimal Moderate
* Adrenal Medulla			
* Brain			
[Compression TGLS = 6-1]			
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule Transit Epithe	Hyaline Droplet Hyperplasia Inflammation Leukemia Mononuclear Nephropathy	Minimal Minimal Chronic, Mild Moderate
* Liver	Renal Tubule Bile Duct	Pigmentation Hyperplasia Leukemia Mononuclear	Minimal Mild
[Leukemia Mononuclear TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 2-8]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 20	TRT#: 1	SEX: Male	DAY ON TEST: 730
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76865

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 7-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Moderate
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
[Fibrosis TGLS = 5-22]			
* Testes	Germinal Epith	Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76498

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-9]		
* Epididymis		Atypia Cellular	Moderate
* Intestine Large, Cecum		Edema	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Leukemia Mononuclear	
	Hepatocyte	Vacuolization Cytoplasmic	Marked
	[Leukemia Mononuclear TGLS = 3-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
* Nose		Foreign Body	
		Inflammation	Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 21	TRT#: 1	SEX: Male	DAY ON TEST: 725
	DOSE: 0 PPM	DISP: Moribund Sacrifice	HISTO: 96-76498

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland [Adenoma TGLS = 1-8]		Adenoma	
* Prostate		Fibrosis Inflammation	Mild Chronic, Mild
* Spleen [Leukemia Mononuclear TGLS = 4-6]		Leukemia Mononuclear	
* Stomach, Forestomach	Epithelium	Hyperplasia Leukemia Mononuclear Ulcer	Moderate Marked
[Ulcer TGLS = 7-4-2]			
* Stomach, Glandular [Ulcer TGLS = 7-4-2]		Ulcer	Moderate
* Testes [Adenoma TGLS = 5-7]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
		Infiltration Cellular	Histiocyte, Moderate
	Lymph Node	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-3]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	Sebaceous GI	Adenoma	
	[Adenoma TGLS = 6-21]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 22	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76509

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-6]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 1-7]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland [Adenoma TGLS = 5-3]	C Cell C Cell	Adenoma Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 700

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Intestine Large, Cecum		Edema	Mild
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
	[Leukemia Mononuclear TGLS = 5-5]	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Marked
	Hepatocyte	Leukemia Mononuclear	
	Note: MODERATE HEMORRHAGE ASSOCIATED WITH LEUKEMIA MONUC ON SLIDE 22; NOT TABULATED.	Vacuolization Cytoplasmic	Marked
	[Leukemia Mononuclear TGLS = 8-22,9-23,10-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 3-21]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-6]		
* Stomach, Glandular		Edema	Mild
		Leukemia Mononuclear	
		Ulcer	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 23	TRT#: 1	SEX: Male	DAY ON TEST: 700
	DOSE: 0 PPM	DISP: Moribund Sacrifice	HISTO: 96-75567

ORGAN AND ACCOUNTABLE SITE STATUS

[Ulcer TGLS = 7-4-2]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 1-7]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Small, Duodenum

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Nephropathy	Moderate
* Liver	Renal Tubule	Pigmentation	Minimal
		Angiectasis	Minimal
	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
		Necrosis	Focal, Minimal
		[Leukemia Mononuclear TGLS = 7-6,9-6]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 2-21]	
		[Hyperplasia TGLS = 1-8]	
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 24	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76510

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 8-1]			
* Prostate		Fibrosis Inflammation	Mild Chronic, Moderate
* Spleen		Fibrosis Leukemia Mononuclear	Mild
[Fibrosis TGLS = 6-22]			
[Leukemia Mononuclear TGLS = 5-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76866

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Angiectasis	Mild
		Degeneration	Cystic, Moderate
	Bile Duct	Hepatocellular Adenoma	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Minimal
	[Hemorrhage TGLS = 3-5]		
* Mammary Gland		Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 617

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74779

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Nose		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Hemangiopericytoma	
	[Hemangiopericytoma TGLS = 3-21]		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
	[Adenoma TGLS = 2-7]		

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Hemangiopericytoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 597

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74647

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Bone | * Brain | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland | * Nose |
| * Parathyroid Gland | * Salivary Glands | * Skin | * Thyroid Gland |
| * Trachea | | | |

OBSERVATIONS

- | | | | |
|--------------------------|--------------|--------------------------------------|-----------------|
| * Adrenal Cortex | | Hypertrophy | Focal, Moderate |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Mild |
| * Heart | | Leukemia Mononuclear | |
| * Kidney | | Leukemia Mononuclear | |
| | | Nephropathy | Minimal |
| | Renal Tubule | Pigmentation | Minimal |
| * Liver | Bile Duct | Hyperplasia | Marked |
| | | Leukemia Mononuclear | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Iliac | Leukemia Mononuclear | |
| | Mediastinal | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 5-21] | |
| | | [Leukemia Mononuclear TGLS = 7-22] | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 1-8] | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 6-5] | |
| * Pancreas | | Leukemia Mononuclear | |
| * Pituitary Gland | | Leukemia Mononuclear | |
| * Preputial Gland | | Inflammation | Chronic, Mild |
| * Prostate | | Leukemia Mononuclear | |
| * Seminal Vesicle | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 597

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74647

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 9-7]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Stomach, Forestomach	Epithelium	Hyperplasia Leukemia Mononuclear	Moderate
[Hyperplasia TGLS = 8-23]			
* Stomach, Glandular		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76867

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hyperplasia	Focal, Minimal
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Adenoma	
		Inflammation	Chronic, Moderate
[Adenoma TGLS = 1-8]			
* Prostate	Epithelium	Hyperplasia	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76868

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Carcinoma	
[Carcinoma TGLS = 4-22]			
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Pancreas		Atrophy	Moderate
[Atrophy TGLS = 3-7]			
* Skin	Subcut Tiss	Lipoma	
[Lipoma TGLS = 1-21]			
* Stomach, Forestomach	Epithelium	Hyperplasia	Minimal
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74630

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Mammary Gland

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-6]	
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 4-3]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Pancreas		Atrophy	Minimal
		Metaplasia	Hepatocyte, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
* Prostate		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 2-6]	
* Testes	Germinal Epith	Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74630

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71385

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 528

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
Peripheral Nerve	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-10]			
* Adrenal Medulla		Leukemia Mononuclear	
* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 10-22]			
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 11-24]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
[Hyperplasia TGLS = 9-26]			
[Leukemia Mononuclear TGLS = 8-2]			
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-23]			
[Leukemia Mononuclear TGLS = 7-25]			
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 528

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74182

ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [Accessory Spleen TGLS = 2-21]		Accessory Spleen	
* Pancreas		Atrophy Leukemia Mononuclear Mixed Tumor Benign	Mild
* Preputial Gland		Adenoma	
* Prostate		Inflammation	Chronic, Marked
Spinal Cord Note: LEUKEMIA MONUC LESION INCLUDES HEMORRHAGE; NOT TABULATED.		Leukemia Mononuclear	
* Spleen [Leukemia Mononuclear TGLS = 3-6]		Leukemia Mononuclear	
* Stomach, Forestomach [Ulcer TGLS = 12-4]	Epithelium	Hyperplasia Ulcer	Mild Marked
* Testes [Adenoma TGLS = 1-7]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76869

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Marked
[Necrosis TGLS = 1-21]			
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 34	TRT#: 1	SEX: Male	DAY ON TEST: 185
	DOSE: 0 PPM	DISP: Scheduled Sacrifice	HISTO: 95-71386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76511

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Cardiomyopathy	Moderate
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Moderate
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		
* Thyroid Gland	Follicle	Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76512

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Esophagus

INSUFFICIENT TISSUE

* Intestine Large, Cecum

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 1-21]			
* Pancreas		Mixed Tumor Benign	
* Preputial Gland		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76870

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Minimal
		[Leukemia Mononuclear TGLS = 3-5]	
		[Nephropathy TGLS = 3-5]	
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic, Mild
		[Inflammation TGLS = 2-8]	
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 1-7]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76870

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 216

DOSE: 0 PPM

DISP: Natural Death

HISTO: 95-71808

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Necrosis	Focal, Moderate
[Necrosis TGLS = 3-6]			
* Lung			
Note: TGL 2-2 IS MODERATE CONGESTION; CONSIDERED AGONAL CHANGE AND NOT TABULATED.			
* Mammary Gland		Hyperplasia	Moderate
* Thymus			
Note: TGL 1 IS MARKED CONGESTION; NOT AVAILABLE ON TDMS.			

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76513

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Nose		Foreign Body	
* Pancreas	Acinus	Hyperplasia	Focal, Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 1-6]	
* Testes	Interstitial Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
	Interstitial Cell	Hyperplasia	Mild
		[Adenoma TGLS = 3-7]	
		[Atrophy TGLS = 2-7]	
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
		[Hyperplasia TGLS = 4-3]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76513

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 711

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
[Leukemia Mononuclear TGLS = 10-5]			
[Pigmentation TGLS = 10-5]			
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-22,8-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7]			
[Leukemia Mononuclear TGLS = 13-23]			
[Leukemia Mononuclear TGLS = 12-25]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 14-5]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 711

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76258

ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery		Accessory Spleen	
	Fat	Necrosis	Marked
	[Accessory Spleen TGLS = 6-21]		
	[Necrosis TGLS = 15-24]		
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
* Preputial Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6]		
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
	[Adenoma TGLS = 5-7]		
	[Atrophy TGLS = 4-7]		
* Thymus		Leukemia Mononuclear	
	Note: THYMUS IS ON SLIDE 25.		
* Thyroid Gland	C Cell	Carcinoma	
	[Carcinoma TGLS = 11-3]		
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76514

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration	Moderate Fatty, Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Intestine Small, Duodenum		Carcinoma	
[Carcinoma TGLS = 5-23]			
* Islets, Pancreatic		Carcinoma	
[Carcinoma TGLS = 2-21]			
* Kidney	Renal Tubule	Nephropathy Pigmentation	Minimal Minimal
* Liver	Bile Duct	Basophilic Focus Clear Cell Focus Hyperplasia Leukemia Mononuclear	Moderate
[Leukemia Mononuclear TGLS = 6-24;7-25]			
* Lung	Alveolar Epith	Hyperplasia Infiltration Cellular	Mild Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas		Atrophy	Moderate
* Prostate	Epithelium	Hyperplasia	Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6,4-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76514

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-7]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76871

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Angiectasis	Moderate
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
[Angiectasis TGLS = 2-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 3-22]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 679

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75126

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Stomach, Glandular
- * Esophagus
- * Intestine Small, Duodenum
- * Nose
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- Eye
 - Retina
 - [Cataract TGLS = 1-21]
- * Heart
- * Kidney
 - Renal Tubule
 - [Leukemia Mononuclear TGLS = 13-5]
 - [Pigmentation TGLS = 13-5]
- * Liver
 - Bile Duct
 - Hepatocyte
 - [Leukemia Mononuclear TGLS = 14-6]
- * Lung
- Lymph Node
 - Deep Cervical
 - Iliac
 - Mediastinal
 - Pancreatic
 - Renal
 - [Leukemia Mononuclear TGLS = 16-27]

- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Cataract
- Degeneration
- Leukemia Mononuclear
- Leukemia Mononuclear
- Nephropathy
- Pigmentation
- Hyperplasia
- Leukemia Mononuclear
- Vacuolization Cytoplasmic
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Mild
- Moderate
- Minimal
- Moderate
- Moderate
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 1

DOSE: 0 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 679

HISTO: 96-75126

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 18-29]

[Leukemia Mononuclear TGLS = 4-23]

[Leukemia Mononuclear TGLS = 17-28]

[Leukemia Mononuclear TGLS = 15-26]

[Leukemia Mononuclear TGLS = 8-7-1]

* Lymph Node, Mandibular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-8-1]

* Lymph Node, Mesenteric

Leukemia Mononuclear

* Mammary Gland

Hyperplasia

Mild

Mesentery

Accessory Spleen

[Accessory Spleen TGLS = 10-24]

* Pancreas

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 7-7-1]

Peritoneum

Mesothelioma Malignant

Note: MESOTHELIO MAL ALSO PRESENT ON SLIDE 7.

[Mesothelioma Malignant TGLS = 11-25]

* Preputial Gland

Leukemia Mononuclear

* Prostate

Epithelium

Hyperplasia

Minimal

Leukemia Mononuclear

* Salivary Glands

Leukemia Mononuclear

* Seminal Vesicle

Leukemia Mononuclear

* Skin

Hyperkeratosis

Moderate

Inflammation

Chronic, Marked

[Hyperkeratosis TGLS = 2-22]

[Inflammation TGLS = 2-22]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 9-6]

* Stomach, Forestomach

Edema

Marked

Epithelium

Hyperplasia

Moderate

Leukemia Mononuclear

Ulcer

Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 679

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75126

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 12-7]	Bilateral, Interstit Cell	Adenoma
* Thymus		Leukemia Mononuclear
* Urinary Bladder		Leukemia Mononuclear

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Carcinoma	
[Carcinoma TGLS = 2-7]			
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
* Preputial Gland		Adenoma	
		Inflammation	Chronic, Marked
[Adenoma TGLS = 1-8]			
[Inflammation TGLS = 1-8]			
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thyroid Gland	Follicular Cel	Adenoma	
[Adenoma TGLS = 4-3]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76515

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver	Renal Tubule	Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
[Hyperplasia TGLS = 2-6]			
* Mammary Gland		Hyperplasia	Mild
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: 0 PPM

DISP: Natural Death

HISTO: 96-74648

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

AUTO PRECLUDES DIAG.

* Intestine Small, Jejunum

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Compression	Moderate
[Compression TGLS = 9-1]			
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-23]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
Peritoneum		Mesothelioma Malignant	
Note: MESOTHELIO MAL ALSO PRESENT ON SLIDE 7.			
[Mesothelioma Malignant TGLS = 3-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 10-1]			
* Preputial Gland		Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 49	TRT#: 1	SEX: Male	DAY ON TEST: 604
	DOSE: 0 PPM	DISP: Natural Death	HISTO: 96-74648

ORGAN AND ACCOUNTABLE SITE STATUS

		Inflammation	Chronic, Mild
[Cyst TGLS = 2-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Spleen		Accessory Spleen	
		Leukemia Mononuclear	
[Accessory Spleen TGLS = 4-22]			
[Leukemia Mononuclear TGLS = 5-6]			
* Testes	Germinal Epith	Atrophy	Marked
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-3]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH - Peritoneum Mesothelioma Malignant; Pituitary Gland Pars Distalis Adenoma

Animal Note: TISSUE ON SLIDE 24 APPEARS TO BE HEART, NOT STOMACH; NO LESION OBSERVED.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76872

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Minimal
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 704

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75667

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
Spinal Cord	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Small, Duodenum	Peripheral Nerve	* Thymus
-----------------------------	------------------	----------

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hyperplasia	Focal, Mild
* Brain		Compression	Moderate
[Compression TGLS = 6-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-8]			
* Nose		Inflammation	Chronic, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Moderate
* Skin	Subcut Tiss	Fibroma	
		Keratoacanthoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 704

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75667

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroma TGLS = 2-22]

* Testes

Interstit Cell

Adenoma

Note: INTERSTITIAL CELL ADENOMA IS ARTIFACTUALLY DISPLACED FROM TESTIS.

[Adenoma TGLS = 4-7]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver	Renal Tubule	Pigmentation	Minimal
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-21]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
		Leukemia Mononuclear	
	Lymph Node	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-7]		
* Lymph Node, Mandibular	Pancreatic	Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 6-1]		
* Prostate	Epithelium	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7,2-7]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76517

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76518

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Brain		Astrocytoma Malignant	
* Heart		Cardiomyopathy	Moderate
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
		[Clear Cell Focus TGLS = 4-23]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Chronic, Mild
* Skin		Hyperkeratosis	Moderate
	Epidermis	Hyperplasia	Moderate
		Inflammation	Chronic, Minimal
		[Hyperkeratosis TGLS = 1-21]	
		[Inflammation TGLS = 1-21]	
* Spleen		Fibrosis	Moderate
		[Fibrosis TGLS = 3-22]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 53

TRT#: 1
DOSE: 0 PPM

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 96-76518

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes
[Adenoma TGLS = 2-7]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76519

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76873

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Skin		Trichoepithelioma	
	[Trichoepithelioma TGLS = 1-21]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 3-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 56

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76874

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
	Kupffer Cell	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]	Pigmentation	Moderate
* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-1]		
* Prostate		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71390

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 58

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76520

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 3-8]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 1-1]			
* Preputial Gland		Inflammation	Chronic, Moderate
* Prostate		Adenoma	
		Inflammation	Chronic, Moderate
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 59

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 617

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74780

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Colon

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Brain		Compression	Moderate
		Hydrocephalus	Moderate
	[Compression TGLS = 4-1]		
	[Hydrocephalus TGLS = 4-1]		
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Angiectasis	Mild
	[Mixed Cell Focus TGLS = 3-21]	Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-1]		
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Moderate
* Stomach, Forestomach		Edema	Minimal
* Testes	Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 617

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74780

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 61

TRT#: 3

SEX: Male

DAY ON TEST: 632

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74856

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Esophagus |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Parathyroid Gland | * Pituitary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-----------------------------------|----------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | Moderate |
| | | Hypertrophy | Focal, Minimal |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Moderate |
| * Heart | | Cardiomyopathy | Mild |
| * Intestine Large, Cecum | | Edema | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet | Minimal |
| | | Nephropathy | Minimal |
| | Renal Tubule | Pigmentation | Marked |
| | [Pigmentation TGLS = 8-5] | | |
| * Liver | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 7-6] | | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Deep Cervical | Leukemia Mononuclear | |
| | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 9-22] | | |
| | [Leukemia Mononuclear TGLS = 13-23] | | |
| | [Leukemia Mononuclear TGLS = 10-24] | | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 2-8] | | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| * Mammary Gland | | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 61

TRT#: 3

SEX: Male

DAY ON TEST: 632

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74856

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 5-21]			
* Nose		Inflammation	Chronic, Moderate
* Pancreas		Atrophy	Moderate
* Preputial Gland		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Moderate
[Adenoma TGLS = 4-7]			
[Atrophy TGLS = 3-7]			
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 11-3]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 62

TRT#: 3

SEX: Male

DAY ON TEST: 610

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74781

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	Peripheral Nerve	* Salivary Glands	* Seminal Vesicle
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Brain		Oligodendroglioma Malignant	
	[Oligodendroglioma Malignant TGLS = 7-1]		
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
	Note: FOCUS OF MIXED CELLS ATTACHED TO INTIMAL SURFACE NEAR JUNCTION OF VENA CAVA AND ATRIUM; NOT CODED ON TDMS.		
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	Kupffer Cell	Pigmentation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 5-24]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 3-22]		
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Note: TUBULAR STRUCTURES AND SPINDLE CELLS (REMNANTS OF RATHKE'S POUCH) IN PARS NERVOSA; CONSIDERED INCIDENTAL DEVELOPMENTAL MALFORMATION AND NOT TABULATED.		
	[Cyst TGLS = 6-1]		
* Preputial Gland		Inflammation	Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 62

TRT#: 3

SEX: Male

DAY ON TEST: 610

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74781

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Chronic, Minimal
* Skin		Ulcer	Marked
[Ulcer TGLS = 1-21]			
* Spleen		Fibrosis	Minimal
[Fibrosis TGLS = 4-23]		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH - Brain Oligodendroglioma Malignant

CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 63

TRT#: 3

SEX: Male

DAY ON TEST: 596

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74638

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Esophagus

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6]		
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 64

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75127

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Leukemia Mononuclear	Moderate
[Leukemia Mononuclear TGLS = 7-10]			
* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy Thrombosis	Mild Marked
[Cardiomyopathy TGLS = 12-5-1]			
[Thrombosis TGLS = 13-5-1]			
* Kidney	Renal Tubule Renal Tubule Renal Tubule	Hyaline Droplet Necrosis Nephropathy Pigmentation	Minimal Marked Mild Marked
[Necrosis TGLS = 8-5]			
[Pigmentation TGLS = 9-5]			
* Liver	Bile Duct Hepatocyte	Degeneration Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Cystic, Minimal Mild Moderate
[Leukemia Mononuclear TGLS = 10-6]			
* Lung		Infiltration Cellular Leukemia Mononuclear	Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 64	TRT#: 3 DOSE: 280 PPM	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 679 HISTO: 96-75127
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ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node	Mediastinal Pancreatic Pancreatic	Leukemia Mononuclear Leukemia Mononuclear Pigmentation	Moderate
[Leukemia Mononuclear TGLS = 5-7] [Leukemia Mononuclear TGLS = 11-3]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Mild
* Preputial Gland		Inflammation	Chronic, Mild
[Inflammation TGLS = 15-8]			
* Skin	Subcut Tiss	Fibroma Keratoacanthoma	
[Fibroma TGLS = 2-22] [Keratoacanthoma TGLS = 1-21]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Stomach, Forestomach	Epithelium	Hyperplasia	Minimal
* Testes	Interstit Cell Germinal Epith	Adenoma Atrophy	Moderate
[Adenoma TGLS = 3-7] [Atrophy TGLS = 4-7]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 65

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lymph Node, Mandibular		Ectasia	Mild
* Nose		Inflammation	Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
* Pancreas		Atrophy	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Lipoma	
	[Lipoma TGLS = 1-21]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-7]		
* Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 66

TRT#: 3

SEX: Male

DAY ON TEST: 561

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74470

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain		Compression	Moderate
[Compression TGLS = 8-1]			
* Heart		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
[Leukemia Mononuclear TGLS = 3-5]		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-2]			
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-3]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Nose	Respirat Epith	Foreign Body	
		Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 66

TRT#: 3

SEX: Male

DAY ON TEST: 561

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74470

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLS = 9-1]

* Prostate

Inflammation

Chronic, Minimal

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-6]

* Stomach, Forestomach

Leukemia Mononuclear

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

* Thymus

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-3]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 67

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Nephropathy

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76875

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver	Renal Tubule	Pigmentation	Minimal
		Angiectasis	Mild
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 2-8]		
* Pituitary Gland	Pars Intermed	Adenoma	
	[Adenoma TGLS = 7-1]		
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Skin		Keratoacanthoma	
	[Keratoacanthoma TGLS = 1-21]		
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76875

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosis TGLS = 5-22]

[Leukemia Mononuclear TGLS = 4-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 69

TRT#: 3

SEX: Male

DAY ON TEST: 610

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74782

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Marked
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 5-5]	Pigmentation	Moderate
* Liver		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
	[Fibrosis TGLS = 3-21]		
	[Leukemia Mononuclear TGLS = 2-6]		
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild
	[Adenoma TGLS = 6-7]		

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 70

TRT#: 3

SEX: Male

DAY ON TEST: 714

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-76259

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 4-10]		
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-6]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
* Nose	Respirat Epith	Hyperplasia	Mild
* Pancreas		Atrophy	Moderate
* Prostate		Inflammation	Chronic, Mild
* Skin	Sebaceous GI	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 70

TRT#: 3

SEX: Male

DAY ON TEST: 714

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-76259

ORGAN AND ACCOUNTABLE SITE STATUS

Hyperkeratosis

Moderate

Hyperplasia

Basal Cell, Moderate

Note: SEROSANGUINOUS EXUDATE ON SKIN SURFACE.

[Adenoma TGLS = 10-23]

[Hyperkeratosis TGLS = 1-21]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Stomach, Glandular

Erosion

Mild

Ulcer

Moderate

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7,6-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 491

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-73991

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6]			
Lymph Node	Inguinal	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-21]			
[Leukemia Mononuclear TGLS = 10-3]			
[Leukemia Mononuclear TGLS = 9-23]			
[Leukemia Mononuclear TGLS = 3-22]			
[Leukemia Mononuclear TGLS = 5-7]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-5]			
* Pancreas		Leukemia Mononuclear	
* Prostate		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 491

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-73991

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-6]

* Stomach, Forestomach

Leukemia Mononuclear

* Testes

Interstit Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 72

TRT#: 3

SEX: Male

DAY ON TEST: 557

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74471

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Thyroid Gland	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 17-1]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Intestine Large, Cecum		Leukemia Mononuclear	
* Intestine Small, Ileum		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 16-4]			
* Intestine Small, Jejunum		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 15-27]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
[Leukemia Mononuclear TGLS = 5-22]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-28]			
Lymph Node	Deep Cervical	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 72

TRT#: 3

SEX: Male

DAY ON TEST: 557

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74471

ORGAN AND ACCOUNTABLE SITE STATUS

Iliac	Leukemia Mononuclear
Mediastinal	Leukemia Mononuclear
Pancreatic	Leukemia Mononuclear
Renal	Leukemia Mononuclear
	Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 10-3]
 [Leukemia Mononuclear TGLS = 11-24]
 [Leukemia Mononuclear TGLS = 13-25]
 [Leukemia Mononuclear TGLS = 14-26]
 [Leukemia Mononuclear TGLS = 1-21]
 [Leukemia Mononuclear TGLS = 6-7]

* Lymph Node, Mandibular	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 2-8]	

* Lymph Node, Mesenteric	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 7-23]	

* Pancreas	Leukemia Mononuclear
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* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
		Leukemia Mononuclear	
[Hyperplasia TGLS = 18-1]			

* Prostate	Inflammation	Chronic, Minimal
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* Spleen	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 3-6]	

* Stomach, Glandular	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 19-29]	

* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 4-7]		

* Thymus	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 9-3]	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 73

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-76499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Bone | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Nose | * Pancreas |
| * Parathyroid Gland | Peripheral Nerve | * Salivary Glands | * Seminal Vesicle |
| Spinal Cord | * Trachea | | |

MISSING

- * Intestine Large, Rectum

OBSERVATIONS

- | | | | |
|--------------------------|--------------|--|---------------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| | | Pheochromocytoma Benign | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Heart | | Cardiomyopathy | Mild |
| | | Leukemia Mononuclear | |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Mild |
| | | Pigmentation | Moderate |
| | | [Leukemia Mononuclear TGLS = 8-5] | |
| | | [Pigmentation TGLS = 8-5] | |
| * Liver | Bile Duct | Hyperplasia | Marked |
| | | Leukemia Mononuclear | |
| | | Necrosis | Focal, Marked |
| | | [Hyperplasia TGLS = 11-6] | |
| | | [Leukemia Mononuclear TGLS = 7-6,11-6] | |
| | | [Necrosis TGLS = 11-6] | |
| * Lung | | Leukemia Mononuclear | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 3-8] | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 73

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-76499

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Hyperplasia TGLS = 4-8]		Hyperplasia	Moderate
Mesentery [Accessory Spleen TGLS = 12-7]		Accessory Spleen	
* Pituitary Gland [Leukemia Mononuclear TGLS = 5-1]		Leukemia Mononuclear	
* Preputial Gland		Leukemia Mononuclear	
* Prostate		Inflammation	Chronic, Mild
* Skin		Hyperkeratosis	Marked
	Epidermis	Hyperplasia	Mild
		Inflammation	Chronic, Mild
[Hyperkeratosis TGLS = 1-21]			
[Hyperplasia TGLS = 1-21]			
[Inflammation TGLS = 1-21]			
* Spleen [Leukemia Mononuclear TGLS = 6-6]		Leukemia Mononuclear	
* Stomach, Forestomach [Leukemia Mononuclear TGLS = 14-22]		Leukemia Mononuclear	
* Stomach, Glandular [Leukemia Mononuclear TGLS = 13-22]		Leukemia Mononuclear	
		Ulcer	Moderate
[Ulcer TGLS = 13-22]			
* Testes [Adenoma TGLS = 9-7]	Bilateral, Interstit Cell	Adenoma	
* Thymus [Leukemia Mononuclear TGLS = 10-3]		Leukemia Mononuclear	
* Thyroid Gland [Carcinoma TGLS = 2-3]	Follicular Cel	Carcinoma	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Thyroid Gland Follicular Cel Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75668

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Leukemia Mononuclear	Moderate
[Leukemia Mononuclear TGLS = 6-10]			
* Adrenal Medulla		Hyperplasia Leukemia Mononuclear	Mild
[Leukemia Mononuclear TGLS = 6-10]			
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet Leukemia Mononuclear	Mild
	Renal Tubule	Nephropathy Pigmentation	Mild Minimal
[Leukemia Mononuclear TGLS = 7-5]			
* Liver	Bile Duct	Hepatocellular Carcinoma Hyperplasia Leukemia Mononuclear	Mild
[Hepatocellular Carcinoma TGLS = 10-21]			
[Leukemia Mononuclear TGLS = 9-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal Pancreatic	Leukemia Mononuclear Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75668

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-7]			
[Leukemia Mononuclear TGLS = 11-3]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-5]			
* Mammary Gland		Hyperplasia	Minimal
* Preputial Gland		Carcinoma	
[Carcinoma TGLS = 2-8-1]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6]			
* Stomach, Forestomach		Edema	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thymus		Leukemia Mononuclear	
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	
CONTRIBUTORY CAUSE OF DEATH	- Liver	Hepatocellular Carcinoma;Preputial Gland	Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 75

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75128

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
Peripheral Nerve	* Salivary Glands	* Seminal Vesicle	* Skin
Spinal Cord	* Thyroid Gland	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Mild
* Bone Marrow		Leukemia Mononuclear	
* Brain		Compression	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
		[Leukemia Mononuclear TGLS = 5-5]	
		[Pigmentation TGLS = 5-5]	
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	Hepatocyte	Vacuolization Cytoplasmic	Marked
		[Leukemia Mononuclear TGLS = 4-6]	
		[Vacuolization Cytoplasmic TGLS = 4-6]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Ectasia	Mild
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 75

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75128

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Leukemia Mononuclear	
* Parathyroid Gland		Hyperplasia	Focal, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			
* Preputial Gland		Inflammation	Chronic, Marked
[Inflammation TGLS = 1-8-1]			
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Stomach, Forestomach		Edema	Moderate
		Ulcer	Moderate
* Stomach, Glandular		Edema	Mild
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 76

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Nephropathy

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 77

TRT#: 3

SEX: Male

DAY ON TEST: 716

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-76260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 5-10]			
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Carcinoma	
[Carcinoma TGLS = 2-7]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
		Basophilic Focus	
* Liver		Infiltration Cellular	Histiocyte, Minimal
* Lung		Hyperplasia	Mild
* Mammary Gland		Hyperplasia	Mild
* Nose	Respirat Epith	Inflammation	Chronic, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pancreas		Atrophy	Marked
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 77

TRT#: 3

SEX: Male

DAY ON TEST: 716

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-76260

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Preputial Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 78

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75129

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration	Moderate Fatty, Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Angiectasis	Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6,5-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
	Note: MINIMAL OSSEOUS METAPLASIA; NOT TABULATED.		
* Pancreas		Atrophy	Mild
* Prostate		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Fibrosarcoma	
	[Fibrosarcoma TGLS = 1-21]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 78

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75129

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

[Leukemia Mononuclear TGLS = 3-6]

Leukemia Mononuclear

* Testes

Interstit Cell

Adenoma

Germinal Epith

Atrophy

Mild

[Atrophy TGLS = 2-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 79

TRT#: 3

SEX: Male

DAY ON TEST: 617

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74783

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-10]			
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-23]			
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
		Leukemia Mononuclear	
* Intestine Small, Ileum		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
[Leukemia Mononuclear TGLS = 5-5]		Pigmentation	Moderate
[Pigmentation TGLS = 5-5]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-21]			
[Leukemia Mononuclear TGLS = 3-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 79

TRT#: 3

SEX: Male

DAY ON TEST: 617

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74783

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular

Leukemia Mononuclear

* Mammary Gland

Hyperplasia

Moderate

* Pituitary Gland

Leukemia Mononuclear

* Prostate

Inflammation

Chronic, Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 80

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Adrenal Medulla

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration Hyperplasia	Moderate Fatty, Marked Diffuse, Marked
[Hyperplasia TGLS = 3-10]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Marked
[Nephropathy TGLS = 4-5]		Pigmentation	Minimal
[Pigmentation TGLS = 5-5]			
* Liver	Hepatocyte	Eosinophilic Focus Hepatodiaphragmatic Nodule Vacuolization Cytoplasmic	Moderate
Note: HDN IS ON SLIDE 6.			
[Eosinophilic Focus TGLS = 9-22]			
[Vacuolization Cytoplasmic TGLS = 8-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Atrophy	Moderate
* Mammary Gland		Fibroadenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 80	TRT#: 3	SEX: Male	DAY ON TEST: 729
	DOSE: 280 PPM	DISP: Terminal Sacrifice	HISTO: 96-76522

ORGAN AND ACCOUNTABLE SITE STATUS

		Hyperplasia	Moderate
[Fibroadenoma TGLS = 1-21] [Hyperplasia TGLS = 2-8]			
* Nose	Respirat Epith	Hyperplasia Inflammation	Mild Chronic, Mild
* Pituitary Gland	Respirat Epith Pars Distalis	Metaplasia Adenoma	Squamous, Mild
[Adenoma TGLS = 10-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Stomach, Glandular		Edema	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 7-7]			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75669

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Nose |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|-------------------|----------------|--|------------------------------------|
| * Adrenal Cortex | | Degeneration
Hypertrophy
Leukemia Mononuclear | Fatty, Moderate
Focal, Moderate |
| * Adrenal Medulla | | Hyperplasia
Leukemia Mononuclear
Pheochromocytoma Benign | Moderate |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Heart | | Thrombosis | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet
Leukemia Mononuclear
Nephropathy | Marked
Minimal |
| | Renal Tubule | Pigmentation | Marked |
| | | [Leukemia Mononuclear TGLS = 6-5]
[Pigmentation TGLS = 6-5] | |
| * Liver | Bile Duct | Degeneration
Hyperplasia
Leukemia Mononuclear | Cystic, Moderate
Marked |
| | | [Leukemia Mononuclear TGLS = 4-6] | |
| * Lung | | Infiltration Cellular
Leukemia Mononuclear | Histiocyte, Moderate |
| Lymph Node | Iliac
Renal | Leukemia Mononuclear
Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75669

ORGAN AND ACCOUNTABLE SITE STATUS

	Iliac	Pigmentation	Moderate
	[Leukemia Mononuclear TGLS = 8-21]		
	[Leukemia Mononuclear TGLS = 9-22]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
	[Hyperplasia TGLS = 2-8]		
* Pancreas		Atrophy	Moderate
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Inflammation	Chronic, Moderate
* Prostate		Inflammation	Chronic, Mild
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 5-7]		
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 82

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76876

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration Hypertrophy Cardiomyopathy	Moderate Fatty, Mild Focal, Minimal
* Heart		Cyst	Minimal
* Kidney	Renal Tubule	Hyaline Droplet Inflammation Nephropathy	Moderate Moderate Chronic, Moderate
	Renal Tubule	Pigmentation	Moderate Minimal
	[Nephropathy TGLS = 4-5]		
	[Pigmentation TGLS = 4-5]		
* Liver		Angiectasis Basophilic Focus Hepatodiaphragmatic Nodule	Mild
	[Hepatodiaphragmatic Nodule TGLS = 5-22]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 6-1]		
* Prostate		Inflammation	Chronic, Moderate
	[Inflammation TGLS = 2-7-1]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 82	TRT#: 3	SEX: Male	DAY ON TEST: 730
	DOSE: 280 PPM	DISP: Terminal Sacrifice	HISTO: 96-76876

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Fibrosis	Mild
		Pigmentation	Moderate
	[Fibrosis TGLS = 3-21]		
	[Pigmentation TGLS = 3-21]		
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
Note: MILD CHRONIC INFLAMMATION ASSOCIATED WITH MUCOSAL HYPERPLASIA; NOT TABULATED.			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76877

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Mild
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thyroid Gland	Follicle	Cyst	Moderate
	C Cell	Hyperplasia	Minimal
[Cyst TGLS = 2-3]			
[Hyperplasia TGLS = 2-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 84

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76878

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
[Infiltration Cellular TGLS = 2-2]			
* Pancreas		Atrophy	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thyroid Gland	Follicle	Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 85

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Nephropathy

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 86

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver	Renal Tubule	Pigmentation	Minimal
		Angiectasis	Mild
		Basophilic Focus	
		Eosinophilic Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Moderate
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
Note: BASOPHILIC FOCUS ON SLIDES 21 AND 22.			
			[Hepatocellular Adenoma TGLS = 3-21]
			[Mixed Cell Focus TGLS = 4-22]
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Mammary Gland		Hyperplasia	Marked
Mesentery	Fat	Necrosis	Moderate
			[Necrosis TGLS = 5-23]
* Preputial Gland		Inflammation	Chronic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 86

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76523

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 1-7]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	Follicle	Cyst	Moderate
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 638

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74857

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	Spinal Cord	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-1]			
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 6-23]		Necrosis	Focal, Mild
[Leukemia Mononuclear TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-7]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-24]			
* Pancreas		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 638

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74857

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	Subcut Tiss	Fibrosis Keratoacanthoma	Mild
[Fibrosis TGLS = 2-22]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Stomach, Forestomach		Edema Ulcer	Mild Moderate
[Ulcer TGLS = 11-25]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-3]			
PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 88	TRT#: 3	SEX: Male	DAY ON TEST: 185
	DOSE: 280 PPM	DISP: Scheduled Sacrifice	HISTO: 95-71395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 89

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76879

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Transit Epithe	Hyperplasia	Mild
		Leukemia Mononuclear	
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
	Renal Tubule	Stromal Nephroma	
	[Stromal Nephroma TGLS = 6-21]		
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 89

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76879

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Atrophy	Mild
* Pituitary Gland		Leukemia Mononuclear	
* Preputial Gland		Adenoma	
		Inflammation	Chronic, Mild
		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-7]			
[Atrophy TGLS = 3-7]			
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 90

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76880

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Mild
	Acinus	Hyperplasia	Focal, Mild
[Hyperplasia TGLS = 3-21]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 90

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76880

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 630

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74858

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Epididymis	* Esophagus
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Nose	* Parathyroid Gland	Peripheral Nerve
* Pituitary Gland	* Skin	* Thyroid Gland	* Trachea

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 14-1]			
* Heart		Leukemia Mononuclear	
* Intestine Large, Cecum		Leukemia Mononuclear	
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
[Leukemia Mononuclear TGLS = 7-5]			
[Pigmentation TGLS = 7-5]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8=6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Iliac	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-24]			
[Leukemia Mononuclear TGLS = 6-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 630

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74858

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 10-23]

[Leukemia Mononuclear TGLS = 9-22]

* Lymph Node, Mandibular

Leukemia Mononuclear

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-21]

* Pancreas

Leukemia Mononuclear

* Preputial Gland

Leukemia Mononuclear

* Prostate

Leukemia Mononuclear

* Salivary Glands

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-8]

* Seminal Vesicle

Leukemia Mononuclear

Spinal Cord

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Stomach, Forestomach

Leukemia Mononuclear

* Stomach, Glandular

Erosion

Minimal

* Testes

Interstit Cell

Adenoma

Germinal Epith

Atrophy

Minimal

[Atrophy TGLS = 4-7]

* Thymus

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 11-3]

* Urinary Bladder

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 13-8]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 92

TRT#: 3

SEX: Male

DAY ON TEST: 631

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74859

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Minimal
* Bone Marrow		Leukemia Mononuclear	
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
	[Cataract TGLS = 1-21]		
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
	[Pigmentation TGLS = 5-5]		
* Liver		Degeneration	Cystic, Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Mediastinal	Pigmentation	Moderate
	[Leukemia Mononuclear TGLS = 7-22]		
	[Leukemia Mononuclear TGLS = 4-7]		
	[Pigmentation TGLS = 7-22]		
* Mammary Gland		Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 92	TRT#: 3	SEX: Male	DAY ON TEST: 631
	DOSE: 280 PPM	DISP: Moribund Sacrifice	HISTO: 96-74859

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 9-1]			
* Prostate		Inflammation	Chronic, Moderate
[Inflammation TGLS = 3-7]			
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 8-23]			
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma;Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 93

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76524

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Nose	Respirat Epith	Foreign Body	
		Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
* Pancreas		Atrophy	Minimal
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Moderate
* Spleen		Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Minimal
[Fibrosis TGLS = 4-21]			
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 93

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76524

ORGAN AND ACCOUNTABLE SITE STATUS

Germinal Epith

Atrophy

Marked

[Adenoma TGLS = 2-7]

[Atrophy TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 94	TRT#: 3	SEX: Male	DAY ON TEST: 185
	DOSE: 280 PPM	DISP: Scheduled Sacrifice	HISTO: 95-71396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 95

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Nephropathy

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 96

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76881

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 97

TRT#: 3

SEX: Male

DAY ON TEST: 584

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-74628

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Islets, Pancreatic	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

AUTO PRECLUDES DIAG.

* Intestine Small, Jejunum

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Moderate
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 2-21]			

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 98

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Mild
	[Pigmentation TGLS = 3-5]	Pigmentation	Mild
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Hepatocellular Carcinoma	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Hepatocellular Carcinoma TGLS = 5-21]		
	[Leukemia Mononuclear TGLS = 4-6,6-22,7-6]		
* Lung		Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
	[Alveolar/Bronchiolar Carcinoma TGLS = 9-2]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-7]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 98

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76525

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland

Inflammation

Chronic, Mild

* Prostate

Inflammation

Chronic, Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7]

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 99

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 100

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 101

TRT#: 3

SEX: Male

DAY ON TEST: 665

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Bone | * Brain | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Nose | * Pancreas |
| * Parathyroid Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--|----------------|----------------------------|----------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 6-10] | | | |
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| [Pheochromocytoma Benign TGLS = 5-10] | | | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | Transit Epithe | Hyperplasia | Minimal |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Moderate |
| [Leukemia Mononuclear TGLS = 7-5] | | Pigmentation | Moderate |
| [Pigmentation TGLS = 7-5] | | | |
| * Liver | | Hepatodiaphragmatic Nodule | |
| [Hepatodiaphragmatic Nodule TGLS = 9-22] | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 8-6] | | | |
| * Lung | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 13-2] | | | |
| Lymph Node | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |
| | Renal | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 101

TRT#: 3

SEX: Male

DAY ON TEST: 665

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75023

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 12-3-1]

[Leukemia Mononuclear TGLS = 4-7]

[Leukemia Mononuclear TGLS = 11-23]

* Lymph Node, Mandibular

Leukemia Mononuclear

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 10-5]

* Mammary Gland

Hyperplasia

Mild

* Pituitary Gland

Pars Intermed

Cyst

Moderate

* Spleen

Leukemia Mononuclear

Fibrosis

Moderate

Leukemia Mononuclear

[Fibrosis TGLS = 3-21]

[Leukemia Mononuclear TGLS = 2-6]

* Stomach, Glandular

Epithelium

Hyperplasia

Mild

[Hyperplasia TGLS = 15-4-2]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

* Thymus

Leukemia Mononuclear

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Adrenal Medulla Pheochromocytoma Benign

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 102

TRT#: 3

SEX: Male

DAY ON TEST: 185

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 103

TRT#: 3

SEX: Male

DAY ON TEST: 690

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration Hyperplasia Leukemia Mononuclear	Fatty, Mild Diffuse, Marked
[Hyperplasia TGLS = 8-10]			
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet Leukemia Mononuclear	Minimal
	Renal Tubule	Nephropathy Pigmentation	Marked Minimal
[Nephropathy TGLS = 9-5]			
* Liver		Basophilic Focus Degeneration Hepatocellular Carcinoma	Cystic, Mild
	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
[Hepatocellular Carcinoma TGLS = 11-23]			
[Leukemia Mononuclear TGLS = 10-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-7]			
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 103

TRT#: 3

SEX: Male

DAY ON TEST: 690

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75539

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Hyperplasia TGLS = 2-8]		Hyperplasia	Moderate
* Pituitary Gland [Adenoma TGLS = 12-1]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic, Moderate
* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Chronic, Moderate
* Skin [Hyperplasia TGLS = 1-21] [Inflammation TGLS = 1-21] [Ulcer TGLS = 1-21]	Epidermis	Hyperplasia Inflammation Ulcer	Moderate Chronic, Mild Minimal
* Spleen [Fibrosis TGLS = 6-22] [Hematopoietic Cell Proliferation TGLS = 5-6] [Leukemia Mononuclear TGLS = 5-6] [Necrosis TGLS = 6-22]		Fibrosis Hematopoietic Cell Proliferation Leukemia Mononuclear Necrosis	Mild Mild Marked
* Stomach, Glandular		Edema	Mild
* Testes [Adenoma TGLS = 3-7]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 104

TRT#: 3

SEX: Male

DAY ON TEST: 506

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Mild
		Leukemia Mononuclear	
		Necrosis	Mild
[Leukemia Mononuclear TGLS = 4-10]			
* Adrenal Medulla		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-10]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-21]			
[Leukemia Mononuclear TGLS = 5-22]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Nose		Foreign Body	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 104

TRT#: 3

SEX: Male

DAY ON TEST: 506

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74071

ORGAN AND ACCOUNTABLE SITE STATUS

Respirat Epith

Hyperplasia

Mild

Inflammation

Chronic, Moderate

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Testes

Germinal Epith

Atrophy

Mild

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 105

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76882

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Brain		Hydrocephalus	Mild
	Pineal Gland	Meningioma Malignant	
Note: TGL 6-1 WAS CONSIDERED TO BE A MALIGNANT PINEOCYTOMA; MORPHOLOGY NOT AVAILABLE ON TDMS.			
		[Hydrocephalus TGLS = 7-1]	
		[Meningioma Malignant TGLS = 6-1]	
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Moderate
* Mammary Gland		Hyperplasia	Moderate
		[Hyperplasia TGLS = 2-8]	
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Moderate
* Pancreas		Atrophy	Marked
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 105

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76882

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 8-1]

* Preputial Gland

Inflammation

Chronic, Moderate

[Inflammation TGLS = 3-8]

* Prostate

Inflammation

Chronic, Moderate

* Skin

Squamous Cell Papilloma

* Testes

Interstit Cell

Adenoma

Germinal Epith

Atrophy

Moderate

[Adenoma TGLS = 4-7]

[Atrophy TGLS = 9-7]

* Thyroid Gland

C Cell

Carcinoma

[Carcinoma TGLS = 5-3]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 106

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76526

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
		Fibroadenoma	
* Mammary Gland			
[Fibroadenoma TGSL = 1-21]			
* Pancreas		Atrophy	Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGSL = 3-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGSL = 2-7]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 107

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Infiltration Cellular	Mixed Cell, Moderate
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 1-21]			
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	Follicular Cel	Carcinoma	
[Carcinoma TGLS = 3-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 108

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76528

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
* Prostate	Epithelium	Hyperplasia	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 109

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76883

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 7-5]	Pigmentation	Minimal
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
	[Leukemia Mononuclear TGLS = 8-6]	Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-7]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Accessory Spleen	
	Fat	Necrosis	Moderate
	[Accessory Spleen TGLS = 6-22]		
	[Necrosis TGLS = 2-23]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 109

TRT#: 3
DOSE: 280 PPM

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 96-76883

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
Note: TGL 5-21 IS CONSIDERED A DEVELOPMENTAL MALFORMATION; MORPHOLOGY NOT AVAILABLE ON TDMS. [Leukemia Mononuclear TGLS = 4-6]			
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 110

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
Note: TGL 3-22 IS A MODERATELY SIZED INFARCT; NOT TABULATED. [Mixed Cell Focus TGLS = 4-23]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery			
Note: PERIARTERITIS ADJACENT TO DUODENUM ON SLIDE 4.			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Mild
Note: TGL 2-21 IS CONSIDERED A DEVELOPMENTAL MALFORMATION (CIRCUMSCRIBED AREA RESEMBLING HIGHLY CONGESTED RED PULP WITH NO VISIBLE LYMPHOID TISSUE).			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:09
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 110

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76884

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 052111-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:09

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 111

TRT#: 3

SEX: Male

DAY ON TEST: 462

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 95-73912

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Spleen		Pigmentation	Moderate
* Testes	Germinal Epith	Atrophy	Marked
	[Atrophy TGLS = 1-21]		
Zymbal's Gland		Carcinoma	
	[Carcinoma TGLS = 2-22]		

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 112

TRT#: 3

SEX: Male

DAY ON TEST: 464

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 95-73913

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 9-9]			
* Brain		Astrocytoma Malignant	
[Astrocytoma Malignant TGLS = 7-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 8-6]			
* Lung		Hemorrhage	Moderate
[Hemorrhage TGLS = 6-2]		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 6-2]			
Lymph Node	Mediastinal	Hemorrhage	Mild
[Hemorrhage TGLS = 5-3]			
* Lymph Node, Mesenteric		Hemorrhage	Moderate
[Hemorrhage TGLS = 4-5]			
* Preputial Gland		Inflammation	Chronic, Mild
* Salivary Glands		Edema	Moderate
* Spleen		Hematopoietic Cell Proliferation	Marked
[Hematopoietic Cell Proliferation TGLS = 3-6]			
* Stom Gland			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 112

TRT#: 3

SEX: Male

DAY ON TEST: 464

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 95-73913

ORGAN AND ACCOUNTABLE SITE STATUS

Note: MILD DIFFUSE NECROSIS OF MUCOSAL GLANDULAR EPITHELIAL CELLS; NOT TABULATED.

* Stomach, Forestomach

Epithelium

Hyperplasia

Minimal

* Testes

Germinal Epith

Atrophy

Mild

Interstit Cell

Hyperplasia

Minimal

[Atrophy TGLS = 2-7]

PRIMARY CAUSE OF DEATH

- Brain Astrocytoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 113

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76529

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-22]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Prostate		Inflammation	Chronic, Mild
* Skin		Basal Cell Carcinoma	
[Basal Cell Carcinoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 114

TRT#: 3
DOSE: 280 PPM

SEX: Male
DISP: Scheduled Sacrifice

DAY ON TEST: 185
HISTO: 95-71401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 115

TRT#: 3

SEX: Male

DAY ON TEST: 555

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74472

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Moderate
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Leukemia Mononuclear	
* Intestine Large, Cecum		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
Note: TGL 8-22 IS A LARGE CYST; NOT TABULATED.			
[Leukemia Mononuclear TGLS = 7-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Iliac	Leukemia Mononuclear	
	Inguinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-25]			
[Leukemia Mononuclear TGLS = 6-26]			
[Leukemia Mononuclear TGLS = 10-24]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 115

TRT#: 3

SEX: Male

DAY ON TEST: 555

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74472

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-21]			
[Leukemia Mononuclear TGLS = 1-8]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8]			
* Pituitary Gland		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 11-1]			
* Preputial Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6]			
* Stomach, Glandular		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Minimal
[Adenoma TGLS = 4-7]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-23]			
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 116

TRT#: 3

SEX: Male

DAY ON TEST: 673

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75130

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Leukemia Mononuclear	Fatty, Minimal Focal, Mild
* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Intestine Large, Cecum		Congestion Edema	Marked Moderate
[Congestion TGLS = 12-4]			
* Intestine Large, Colon		Congestion Edema	Moderate Mild
[Congestion TGLS = 13-4]			
* Intestine Small, Jejunum		Congestion	Moderate
[Congestion TGLS = 14-4-1]			
* Kidney	Renal Tubule	Hyaline Droplet Leukemia Mononuclear	Moderate
	Renal Tubule	Nephropathy Pigmentation	Mild Moderate
[Leukemia Mononuclear TGLS = 3-5]			
[Pigmentation TGLS = 3-5]			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
[Leukemia Mononuclear TGLS = 7-6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 116

TRT#: 3

SEX: Male

DAY ON TEST: 673

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75130

ORGAN AND ACCOUNTABLE SITE STATUS

* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-2]			
Lymph Node	Iliac	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 11-21]			
[Leukemia Mononuclear TGLS = 6-7]			
[Leukemia Mononuclear TGLS = 8-3]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-5]			
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
		Leukemia Mononuclear	
* Preputial Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 4-7]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 117

TRT#: 3

SEX: Male

DAY ON TEST: 511

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74072

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
		Necrosis	Mild
Note: MILD HEMORRHAGE ASSOCIATED WITH LEUKEMIA MONUC; NOT TABULATED.			
		[Leukemia Mononuclear TGLS = 5-1]	
		[Necrosis TGLS = 5-1]	
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-6]	
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 4-21]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 6-1]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 117

TRT#: 3

SEX: Male

DAY ON TEST: 511

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74072

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Fibrosis Inflammation	Mild Chronic, Mild
* Saliv Glands			
Note: MILD FOCAL NEUTROPHILIC INFILTRATION; NOT TABULATED.			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 118

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76530

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin		Basal Cell Adenoma	
		Hyperkeratosis	Marked
	Epidermis	Hyperplasia	Moderate

Note: PARTIALLY DETACHED PORTION OF BASAL CELL ADENOMA HAS FEATURES OF TRICHOEPITHELIOMA.

[Basal Cell Adenoma TGLS = 2-22]

[Hyperkeratosis TGLS = 1-21]

[Hyperplasia TGLS = 1-21]

* Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 118

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76530

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 4-7]

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 119

TRT#: 3

SEX: Male

DAY ON TEST: 636

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-74860

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

* Intestine Small, Jejunum

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Necrosis	Moderate
[Necrosis TGLS = 4-6]			
Lymph Node	Mediastinal	Pigmentation	Moderate
[Pigmentation TGLS = 6-23]			
* Pancreas		Atrophy	Moderate
Peritoneum		Mesothelioma Malignant	
[Mesothelioma Malignant TGLS = 3-21,7-22]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Stomach, Glandular		Ulcer	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thymus			

Note: MODERATE HEMORRHAGE; CONSIDERED AGONAL CHANGE AND NOT TABULATED.

PRIMARY CAUSE OF DEATH

- Peritoneum Mesothelioma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 119

TRT#: 3

DOSE: 280 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 636

HISTO: 96-74860

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 120

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76531

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 121

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 122

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76885

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
* Lymph Node, Mesenteric		Hemorrhage	Minimal
* Pancreas		Atrophy	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 123

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 124

TRT#: 5

SEX: Male

DAY ON TEST: 603

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74649

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
		Thrombosis	Marked
	[Thrombosis TGLS = 11-26]		
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
* Liver	Hepatocyte	Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
	[Vacuolization Cytoplasmic TGLS = 8-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Hemorrhage	Marked
	Renal	Hemorrhage	Marked
	Mediastinal	Pigmentation	Marked
	[Hemorrhage TGLS = 9-24]		
	[Hemorrhage TGLS = 10-25]		
	[Pigmentation TGLS = 10-25]		
* Lymph Node, Mesenteric		Hemorrhage	Mild
Peritoneum		Mesothelioma Malignant	
	Note: MESOTHELIOMA MAL IS ALSO PRESENT ON SLIDE 7.		
	[Mesothelioma Malignant TGLS = 4-21,5-22]		
* Prostate		Inflammation	Chronic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 124

TRT#: 5

SEX: Male

DAY ON TEST: 603

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74649

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Moderate
		Leukemia Mononuclear	
	[Fibrosis TGLS = 6-23]		
	[Hematopoietic Cell Proliferation TGLS = 7-6]		
	[Leukemia Mononuclear TGLS = 7-6]		
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
		Ulcer	Marked
	Note: FORESTOMACH LESIONS ALSO PRESENT ON SLIDE 4.		
	[Ulcer TGLS = 12-4-1]		
* Stomach, Glandular		Erosion	Mild
	[Erosion TGLS = 12-4-1]		
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
	Interstit Cell	Hyperplasia	Moderate
	[Adenoma TGLS = 3-7]		
	[Atrophy TGLS = 2-7]		

PRIMARY CAUSE OF DEATH - Peritoneum Mesothelioma Malignant

CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 125

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76886

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 126

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76887

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 1-21,3-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 127

TRT#: 5

SEX: Male

DAY ON TEST: 700

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	Peripheral Nerve	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Adrenal Cortex		Adenoma	
[Adenoma TGLS = 6-10]			
* Brain		Compression	Moderate
[Compression TGLS = 2-1]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
Lymph Node	Mediastinal	Hyperplasia	Lymphoid, Mild
	Mediastinal	Pigmentation	Mild
[Hyperplasia TGLS = 7-3]			
[Pigmentation TGLS = 7-3]			
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Spleen		Pigmentation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 127

TRT#: 5

SEX: Male

DAY ON TEST: 700

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75568

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach

Epithelium

Hyperplasia

Mild

[Ulcer TGLS = 8-4-2]

Ulcer

Moderate

* Testes

Interstit Cell

Adenoma

[Adenoma TGLS = 5-7]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 128

TRT#: 5

DOSE: 830 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 510

HISTO: 96-74073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Bone | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland | * Nose |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--|--------------|-----------------------|---------------------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 8-10] | | | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 8-10] | | | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Brain | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 12-1] | | | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Moderate |
| * Liver | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 6-6] | | | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| [Leukemia Mononuclear TGLS = 10-2-1] | | Leukemia Mononuclear | |
| Lymph Node | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 9-23] | | | |
| [Leukemia Mononuclear TGLS = 5-22] | | | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 128

TRT#: 5

SEX: Male

DAY ON TEST: 510

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74073

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 7-5]		Leukemia Mononuclear
Mesentery [Accessory Spleen TGLS = 4-21]		Accessory Spleen
* Pancreas		Leukemia Mononuclear
* Spleen [Leukemia Mononuclear TGLS = 3-6]		Leukemia Mononuclear
* Testes [Adenoma TGLS = 2-7]	Interstit Cell	Adenoma

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 129

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 130

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76532

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
		[Leukemia Mononuclear TGLS = 1-5]	
		[Pigmentation TGLS = 1-5]	
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
		[Hyperplasia TGLS = 3-1]	
* Spleen		Leukemia Mononuclear	
		Pigmentation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-7]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 130

TRT#: 5

DOSE: 830 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 96-76532

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 131

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76533

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Pituitary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Mild
		Inflammation	Chronic, Mild
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 132

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74882

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-6]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 13-2]		
Lymph Node	Mediastinal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 12-25]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 9-5,10-24]		
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 4-21]		
* Pancreas			
	Note: TGL 7 IS ACCESSORY SPLEEN; NOT AVAILABLE ON TDMS.		
* Preputial Gland		Cyst	Moderate
	[Cyst TGLS = 1-8]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6,6-22]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 132	TRT#: 5	SEX: Male	DAY ON TEST: 645
	DOSE: 830 PPM	DISP: Moribund Sacrifice	HISTO: 96-74882

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach	Epithelium	Hyperplasia Leukemia Mononuclear	Mild
* Stomach, Glandular [Ulcer TGLS = 14-26]		Ulcer	Marked
* Testes [Adenoma TGLS = 3-7]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 133

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76888

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Islets, Pancreatic	* Lymph Node, Mandibular
----------------------	--------------------------

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Prostate		Inflammation	Chronic, Mild
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 134

TRT#: 5

SEX: Male

DAY ON TEST: 617

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74784

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver	Kupffer Cell	Fibrosarcoma	Metastatic (Spleen)
		Pigmentation	Mild
Note: KUPFFER CELL PIGMENT IS ON SLIDE 22 PRIMARILY.			
[Fibrosarcoma TGLS = 5-22]			
* Nose		Inflammation	Chronic, Minimal
* Pancreas		Fibrosarcoma	Metastatic (Spleen)
[Fibrosarcoma TGLS = 3-21]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Spleen		Fibrosarcoma	
[Fibrosarcoma TGLS = 2-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH - Spleen Fibrosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 135

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76889

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Mild
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
		Note: ADENOMA IS ATYPICAL (COMPRISED OF CELLS WITH ABUNDANT, PALE-STAINING, OCCASIONALLY VACUOLATED CYTOPLASM).	
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 136

TRT#: 5

SEX: Male

DAY ON TEST: 617

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74785

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Parathyroid Gland	Peripheral Nerve	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Nephropathy TGLS = 2-5]			
[Pigmentation TGLS = 2-5]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Moderate
* Spleen		Accessory Spleen	
		Pigmentation	Moderate
[Accessory Spleen TGLS = 6-21]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 136

TRT#: 5

SEX: Male

DAY ON TEST: 617

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74785

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 137

TRT#: 5

SEX: Male

DAY ON TEST: 700

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Bone Marrow		Hyperplasia	Marked
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney	Transit Epithe	Hyperplasia	Mild
		Inflammation	Chronic, Moderate
	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Minimal
	[Nephropathy TGLS = 4-5]		
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Hepatodiaphragmatic Nodule	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Skin	Subcut Tiss	Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 138

TRT#: 5

SEX: Male

DAY ON TEST: 725

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76500

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Cyst	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Prostate		Inflammation	Chronic, Mild
* Skin		Cyst Epithelial Inclusion	
[Cyst Epithelial Inclusion TGLS = 1-21]			
* Testes	Germinal Epith	Atrophy	Moderate
[Atrophy TGLS = 3-7]			
* Thyroid Gland	Follicular Cel	Carcinoma	
[Carcinoma TGLS = 4-3]			

PRIMARY CAUSE OF DEATH - Thyroid Gland Follicular Cel Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 139

TRT#: 5

SEX: Male

DAY ON TEST: 689

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	Peripheral Nerve	* Salivary Glands	* Seminal Vesicle
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
* Intestine Large, Cecum		Edema	Mild
		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
* Liver	Bile Duct	Pigmentation	Mild
		Hyperplasia	Marked
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
[Infiltration Cellular TGLS = 11-2]			
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-24]			
[Leukemia Mononuclear TGLS = 12-3]			
[Leukemia Mononuclear TGLS = 3-22]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 139

TRT#: 5

SEX: Male

DAY ON TEST: 689

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75540

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 4-8]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 7-5]		Leukemia Mononuclear	
* Pancreas Peritoneum Note: MESOTHELIO MAL IS ALSO PRESENT ON SLIDE 7. [Mesothelioma Malignant TGLS = 9-23]		Leukemia Mononuclear Mesothelioma Malignant	
* Pituitary Gland Pars Distalis		Cyst Leukemia Mononuclear	Moderate
* Preputial Gland		Leukemia Mononuclear	
* Prostate		Inflammation Leukemia Mononuclear	Chronic, Mild
* Skin [Cyst Epithelial Inclusion TGLS = 2-21]		Cyst Epithelial Inclusion	
* Spleen [Leukemia Mononuclear TGLS = 6-6]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 8-7]	Bilateral, Interstit Cell	Adenoma	
* Thymus [Leukemia Mononuclear TGLS = 5-3]		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74861

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Ear	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Moderate
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-21]			
* Nose	Respirat Epith	Foreign Body	
		Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Intermed	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74861

ORGAN AND ACCOUNTABLE SITE STATUS

[Hematopoietic Cell Proliferation TGLS = 2-6]

[Leukemia Mononuclear TGLS = 2-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Intermed Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 141	TRT#: 5	SEX: Male	DAY ON TEST: 185
	DOSE: 830 PPM	DISP: Scheduled Sacrifice	HISTO: 95-71405

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71406

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Moderate

Nephropathy

Minimal

Renal Tubule

Pigmentation

Minimal

* Liver

Basophilic Focus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76534

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Stomach, Forestomach	* Stomach, Glandular
------------------------	----------------------

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Hyperplasia Leukemia Mononuclear	Moderate Focal, Mild
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy Pigmentation	Moderate Mild Minimal
	Renal Tubule		
[Pigmentation TGLS = 5-5]			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
* Lung		Infiltration Cellular Leukemia Mononuclear	Histiocyte, Mild
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-3-1]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 8-22]			
* Pancreas		Atrophy	Minimal
* Parathyroid Gland		Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 143

TRT#: 5

DOSE: 830 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 96-76534

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Hyperplasia

Focal, Mild

* Preputial Gland

Inflammation

Chronic, Mild

* Skin

Note: TGL 1-21 IS FOCAL AREA ON OSSEOUS METAPLASIA; CONSIDERED INCIDENTAL FINDING AND NOT TABULATED.

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 6-7]

* Thyroid Gland

C Cell

Carcinoma

[Carcinoma TGLS = 7-3]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 144

TRT#: 5

SEX: Male

DAY ON TEST: 704

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75670

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Bone | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland | * Nose | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

- * Intestine Small, Duodenum

OBSERVATIONS

- | | | | |
|--------------------------------------|--------------|--|--------------------|
| * Adrenal Cortex | | Degeneration
Leukemia Mononuclear | Fatty, Mild |
| [Leukemia Mononuclear TGLS = 6-10] | | | |
| * Adrenal Medulla | | Hyperplasia
Leukemia Mononuclear
Pheochromocytoma Benign | Mild |
| [Leukemia Mononuclear TGLS = 6-10] | | | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Heart | | Leukemia Mononuclear | |
| * Intestine Large, Cecum | | Edema | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet
Leukemia Mononuclear
Nephropathy | Minimal
Minimal |
| | Renal Tubule | Pigmentation | Moderate |
| * Liver | Bile Duct | Hyperplasia
Leukemia Mononuclear | Marked |
| | Hepatocyte | Vacuolization Cytoplasmic | Moderate |
| [Leukemia Mononuclear TGLS = 7-6] | | | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 144

TRT#: 5

SEX: Male

DAY ON TEST: 704

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75670

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 5-7]		
[Leukemia Mononuclear TGLS = 9-3]		
* Lymph Node, Mandibular		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 1-8]		
* Lymph Node, Mesenteric		Leukemia Mononuclear
Mesentery		Accessory Spleen
[Accessory Spleen TGLS = 4-21]		
* Pancreas		Leukemia Mononuclear
* Seminal Vesicle		Leukemia Mononuclear
* Skin	Subcut Tiss	Lipoma
[Lipoma TGLS = 10-22]		
* Spleen		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 3-6-1]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 12-7]		
* Thymus		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 8-3]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 704

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75671

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Intestine Large, Cecum		Edema	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
		[Leukemia Mononuclear TGLS = 9-5]	
		[Pigmentation TGLS = 9-5]	
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	Kupffer Cell	Pigmentation	Moderate
		[Leukemia Mononuclear TGLS = 7-6]	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 8-3]	
		[Leukemia Mononuclear TGLS = 6-7]	
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 704

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75671

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland		Hyperplasia	Mild
* Preputial Gland		Adenoma	
		Inflammation	Chronic, Mild
[Adenoma TGLS = 2-8]			
* Prostate	Epithelium	Fibrosis	Mild
		Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Skin		Cyst Epithelial Inclusion	
[Cyst Epithelial Inclusion TGLS = 1-21]			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
		Necrosis	Moderate
[Fibrosis TGLS = 5-22]			
[Leukemia Mononuclear TGLS = 4-6]			
[Necrosis TGLS = 5-22]			
* Stomach, Glandular		Erosion	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 146

TRT#: 5

SEX: Male

DAY ON TEST: 602

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74650

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Degeneration	Cystic, Mild
		Leukemia Mononuclear	
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
		[Leukemia Mononuclear TGLS = 6-6]	
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-22]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
		[Necrosis TGLS = 3-21]	
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 146

TRT#: 5

SEX: Male

DAY ON TEST: 602

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74650

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

[Leukemia Mononuclear TGLS = 4-6]

Leukemia Mononuclear

* Testes

[Adenoma TGLS = 2-7]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 147

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76890

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
		Thrombosis	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
		[Leukemia Mononuclear TGLS = 4-5]	
		[Pigmentation TGLS = 4-5]	
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 7-6]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 147

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76890

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gl

Note: TGL 6-1 ATTRIBUTED TO AGGREGATES OF PIGMENT-CONTAINING MACROPHAGES BETWEEN PARS DISTALIS AND PARS INTERMEDIA; NOT TABULATED.

* Prostate	Epithelium	Hyperplasia	Marked
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* Spleen		Leukemia Mononuclear	
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[Leukemia Mononuclear TGLS = 1-6]

* Testes	Bilateral, Interstit Cell	Adenoma	
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[Adenoma TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 148

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76535

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Pancreas	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Intestine Small, Ileum	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Mammary Gland		Hyperplasia	Mild
* Nose		Inflammation	Chronic, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Preputial Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Urinary Bladder	Transit Epithe	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 648

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74934

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Thrombosis	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
	[Pigmentation TGLS = 7-5]		
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-6]		
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Mediastinal	Pigmentation	Moderate
	[Leukemia Mononuclear TGLS = 10-23]		
	[Pigmentation TGLS = 10-23]		
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-21]		
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 6-22]		
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate	Epithelium	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 648

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74934

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

[Leukemia Mononuclear TGLS = 5-6]

Leukemia Mononuclear

* Testes

[Adenoma TGLS = 3-7]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 150

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 151

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76891

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Brain		Compression	Moderate
[Compression TGLS = 7-1]			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Moderate
[Leukemia Mononuclear TGLS = 5-5]		Pigmentation	Minimal
[Nephropathy TGLS = 5-5]			
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 151

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76891

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 4-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 8-1]			
* Prostate		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 152

TRT#: 5

SEX: Male

DAY ON TEST: 673

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75131

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
	[Leukemia Mononuclear TGLS = 6-10]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
	[Leukemia Mononuclear TGLS = 5-5]		
	[Pigmentation TGLS = 5-5]		
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Moderate
		Infiltration Cellular	Histiocyte, Mild
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-21]		
	[Leukemia Mononuclear TGLS = 4-7]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 152

TRT#: 5
DOSE: 830 PPM

SEX: Male
DISP: Moribund Sacrifice

DAY ON TEST: 673
HISTO: 96-75131

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland

Leukemia Mononuclear

Chronic, Moderate

* Prostate

Inflammation

Chronic, Mild

* Spleen

Inflammation

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6,8-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 153

TRT#: 5

SEX: Male

DAY ON TEST: 624

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74829

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 5-5]		
* Liver		Degeneration	Cystic, Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6]		
* Lung		Infiltration Cellular	Histiocyte, Moderate
		Leukemia Mononuclear	
	[Infiltration Cellular TGLS = 8-2]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-22]		
* Lymph Node, Mandibular		Ectasia	Mild
		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 2-21]		
* Pancreas		Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 153

TRT#: 5

SEX: Male

DAY ON TEST: 624

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74829

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 1-7]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 154

TRT#: 5

SEX: Male

DAY ON TEST: 644

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74867

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Mild
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Hemorrhage	Moderate
	Mediastinal	Pigmentation	Mild
[Hemorrhage TGLS = 6-24]			
[Pigmentation TGLS = 6-24]			
* Lymph Node, Mandibular		Ectasia	Mild
* Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
Peritoneum		Mesothelioma Malignant	
[Mesothelioma Malignant TGLS = 4-23]			
* Prostate		Inflammation	Chronic, Moderate
* Salivary Glands		Schwannoma Malignant	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 154

TRT#: 5

SEX: Male

DAY ON TEST: 644

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74867

ORGAN AND ACCOUNTABLE SITE STATUS

[Schwannoma Malignant TGLS = 2-22]

* Skin

Hyperkeratosis

Mild

[Hyperkeratosis TGLS = 1-21]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3-7]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

CONTRIBUTORY CAUSE OF DEATH

- Peritoneum Mesothelioma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 155

TRT#: 5

SEX: Male

DAY ON TEST: 631

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74862

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	Spinal Cord
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-10]		
* Adrenal Medulla		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-10]		
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
	[Leukemia Mononuclear TGLS = 8-5]		
	[Pigmentation TGLS = 8-5]		
* Liver		Histiocytic Sarcoma	
		Leukemia Mononuclear	
	[Histiocytic Sarcoma TGLS = 9-22]		
* Lung		Histiocytic Sarcoma	
		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
	[Histiocytic Sarcoma TGLS = 11-2,11-27]		
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 155

TRT#: 5

SEX: Male

DAY ON TEST: 631

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74862

ORGAN AND ACCOUNTABLE SITE STATUS

	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-23]		
	[Leukemia Mononuclear TGLS = 5-26]		
	[Leukemia Mononuclear TGLS = 4-7]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 3-21]		
* Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Marked
	Respirat Epith	Metaplasia	Squamous, Moderate
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Fibroma	
	Subcut Tiss	Histiocytic Sarcoma	
	[Fibroma TGLS = 12-24]		
	[Histiocytic Sarcoma TGLS = 13-25]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-6]		
* Stomach, Forestomach		Edema	Moderate
	Epithelium	Hyperplasia	Mild
		Ulcer	Moderate
	[Ulcer TGLS = 14-4]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7,2-7]		
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Histiocytic Sarcoma

CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 156

TRT#: 5

SEX: Male

DAY ON TEST: 575

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74514

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Degeneration	Cystic, Minimal
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-7]		
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 157

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 3-21]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
[Clear Cell Focus TGLS = 4-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Prostate		Adenoma	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 158

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76537

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
[Pigmentation TGLS = 3-5]			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Moderate
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 159

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 160

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76892

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Kidney		Cyst	Moderate
	Renal Tubule	Hyaline Droplet	Moderate
	Transit Epithe	Hyperplasia	Mild
		Inflammation	Chronic, Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 3-21]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	Follicle	Cyst	Moderate
	C Cell	Hyperplasia	Minimal
[Cyst TGLS = 1-3]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 160

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76892

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 161

TRT#: 5

SEX: Male

DAY ON TEST: 483

DOSE: 830 PPM

DISP: Natural Death

HISTO: 95-73928

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Moderate
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Nephropathy TGLS = 2-5]			
* Liver		Necrosis	Focal, Minimal
* Lymph Node, Mandibular		Hemorrhage	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Preputial Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Chronic, Moderate
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 162

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 163

TRT#: 5

SEX: Male

DAY ON TEST: 533

DOSE: 830 PPM

DISP: Natural Death

HISTO: 96-74433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
* Lung		Hemorrhage	Moderate
* Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Marked
	Respirat Epith	Metaplasia	Squamous, Moderate
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 164

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76893

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Minimal
		Metaplasia	Hepatocyte, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic, Mild
* Testes	Interstitial Cell	Adenoma	
		[Adenoma TGLS = 1-7]	
* Thyroid Gland		Ultimobranchial Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76894

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	Peripheral Nerve	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	Spinal Cord	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Mild
* Brain		Hydrocephalus	Moderate
[Hydrocephalus TGLS = 4-1]			
* Epididymis		Atypia Cellular	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver		Hepatocellular Carcinoma	
		Leukemia Mononuclear	
[Hepatocellular Carcinoma TGLS = 2-6]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76894

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 166

TRT#: 5

SEX: Male

DAY ON TEST: 720

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Compression	Moderate
[Compression TGLS = 1-1]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Degeneration	Cystic, Moderate
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Hepatocellular Carcinoma TGLS = 8-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
		Leukemia Mononuclear	
Lymph Node	Mediastinal		
[Leukemia Mononuclear TGLS = 7-3]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 4-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 166	TRT#: 5 DOSE: 830 PPM	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 720 HISTO: 96-76261
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 2-1]	Pars Distalis	Adenoma Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic, Moderate
* Prostate		Inflammation	Chronic, Moderate
* Spleen [Leukemia Mononuclear TGLS = 5-6]		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Liver Hepatocellular Carcinoma; Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 167	TRT#: 5	SEX: Male	DAY ON TEST: 185
	DOSE: 830 PPM	DISP: Scheduled Sacrifice	HISTO: 95-71410

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 550

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Parathyroid Gland	Peripheral Nerve
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
Spinal Cord	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Pituitary Gland

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-5]			
* Pancreas		Atrophy	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
Note: MINIMAL SUBACUTE INFLAMMATION AND HEMORRHAGE IN WALL; NOT TABULATED.			
[Hyperplasia TGLS = 6-4]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 550

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74436

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 169

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74883

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

- | | |
|---------------------|----------|
| * Parathyroid Gland | * Thymus |
|---------------------|----------|

INSUFFICIENT TISSUE

- * Skin

OBSERVATIONS

- | | | | |
|--------------------------------------|---------------|--|----------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule
Hypertrophy
Leukemia Mononuclear | Moderate
Focal, Minimal |
| [Leukemia Mononuclear TGLS = 4-10] | | | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | Renal Tubule | Hyaline Droplet | Minimal |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 5-6] | | | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| | | Leukemia Mononuclear | |
| [Infiltration Cellular TGLS = 6-2] | | | |
| * Pancreas | | Atrophy | Minimal |
| * Pituitary Gland | Pars Distalis | Cyst | Moderate |
| | Pars Distalis | Hyperplasia | Focal, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 169

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74883

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 170

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76538

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea

MISSING

* Intestine Small, Ileum

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
		[Leukemia Mononuclear TGLS = 3-5]	
		[Pigmentation TGLS = 3-5]	
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
		Hepatocellular Adenoma	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		[Hepatocellular Adenoma TGLS = 7-22]	
		[Hepatodiaphragmatic Nodule TGLS = 6-21]	
		[Leukemia Mononuclear TGLS = 5-6]	
* Lung		Infiltration Cellular	Histiocyte, Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 170

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76538

ORGAN AND ACCOUNTABLE SITE STATUS

[Infiltration Cellular TGLS = 8-2]

* Lymph Node, Mandibular

Leukemia Mononuclear

* Lymph Node, Mesenteric

Leukemia Mononuclear

* Pancreas

Atrophy

Mild

* Pituitary Gland

Leukemia Mononuclear

* Prostate

Epithelium

Leukemia Mononuclear

Hyperplasia

Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7]

* Thymus

Leukemia Mononuclear

* Thyroid Gland

C Cell

Hyperplasia

Mild

* Urinary Bladder

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 171

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
		Hyperplasia	Focal, Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
	[Pigmentation TGLS = 4-5]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
	[Eosinophilic Focus TGLS = 1-21]		
* Prostate		Fibrosis	Moderate
		Note: CYSTIC STRUCTURES CONTAINING MUCOID MATERIAL IN ZONE OF FIBROSIS; NOT TABULATED.	
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Moderate
	[Adenoma TGLS = 2-7]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 171

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76539

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLS = 3-7]

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 172

TRT#: 5

SEX: Male

DAY ON TEST: 368

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 95-73552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
Peripheral Nerve	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	Spinal Cord	* Spleen	* Stomach, Glandular
* Testes	* Thymsus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone		Osteosarcoma	
[Osteosarcoma TGLS = 1-21]			
* Brain		Hydrocephalus	Moderate
[Hydrocephalus TGLS = 2-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Hemorrhage	Mild
		Infiltration Cellular	Mixed Cell, Mild
Note: MILD HEMORRHAGE AND CHRONIC INFLAMMATION; NOT TABULATED.			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Stomach, Forestomach		Edema	Moderate

PRIMARY CAUSE OF DEATH

- Bone Osteosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 173

TRT#: 5

SEX: Male

DAY ON TEST: 605

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74651

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Marked
[Pigmentation TGLS = 5-5]			
* Liver	Bile Duct	Hepatocellular Carcinoma	
		Hyperplasia	Marked
		Leukemia Mononuclear	
[Hepatocellular Carcinoma TGLS = 8-21]			
[Leukemia Mononuclear TGLS = 7-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-22]			
[Leukemia Mononuclear TGLS = 9-24]			
[Leukemia Mononuclear TGLS = 4-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 173

TRT#: 5

SEX: Male

DAY ON TEST: 605

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74651

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-23]			
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Prostate		Inflammation	Chronic, Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 696

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Thrombosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
		[Leukemia Mononuclear TGLS = 6-5]	
		[Pigmentation TGLS = 6-5]	
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 7-6]	
* Lung		Leukemia Mononuclear	
Lymph Node	Renal	Leukemia Mononuclear	
	Renal	Pigmentation	Marked
		[Leukemia Mononuclear TGLS = 9-22]	
		[Pigmentation TGLS = 9-22]	
Mesentery	Fat	Necrosis	Moderate
		[Necrosis TGLS = 5-21]	
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 696

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75541

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-6]

* Stomach, Forestomach

Epithelium

Hyperplasia

Mild

Ulcer

Moderate

[Ulcer TGLS = 10-23]

* Stomach, Glandular

Erosion

Moderate

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 175

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76895

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
Urethra	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Pancreas		Atrophy	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 176

TRT#: 5

SEX: Male

DAY ON TEST: 185

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 373

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 95-73553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
Note: MINIMAL NECROSIS IN CEREBRUM; PROBABLY SECONDARY TO LEUKEMIA.			
[Leukemia Mononuclear TGLS = 9-24]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Leukemia Mononuclear TGLS = 3-5]			
[Pigmentation TGLS = 3-5]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
		Necrosis	Marked
Mesentery	Fat		
[Necrosis TGLS = 6-22]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Marked
* Spleen		Leukemia Mononuclear	
		Necrosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 373

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 95-73553

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-6]

[Necrosis TGLS = 5-21]

* Stomach, Glandular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 8-23]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 178

TRT#: 5

SEX: Male

DAY ON TEST: 609

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74786

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Diffuse, Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Carcinoma	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Necrosis	Focal, Moderate
		[Necrosis TGLS = 2-21]	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 4-1]	
* Prostate		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Stomach, Forestomach	Epithelium	Hyperplasia	Marked
		Perforation	
		Note: FORESTOMACH PERFORATION ALSO PRESENT ON SLIDE 4.	
		[Perforation TGLS = 3-22,5-22]	
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 178

TRT#: 5

SEX: Male

DAY ON TEST: 609

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74786

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-7]

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

- Stomach, Forestomach Perforation

CONTRIBUTORY CAUSE OF DEATH

- Islets;Pancreatic Carcinoma;Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 179

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Renal Tubule	Pigmentation	Mild
		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
		Leukemia Mononuclear	
		[Hyperplasia TGLS = 5-1]	
		[Leukemia Mononuclear TGLS = 5-1]	
* Prostate		Inflammation	Chronic, Moderate
* Skin		Keratoacanthoma	
		[Keratoacanthoma TGLS = 1-21]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 179

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76540

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 3-6]		Leukemia Mononuclear
* Testes [Adenoma TGLS = 2-7]	Bilateral, Interstit Cell	Adenoma
* Thymus		Leukemia Mononuclear
* Thyroid Gland [Carcinoma TGLS = 4-3]	Follicular Cel	Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 180

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-21]			
* Preputial Gland		Inflammation	Chronic, Moderate
* Prostate		Fibrosis	Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-22]			
[Leukemia Mononuclear TGLS = 3-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

Animal Note: FOCUS OF PERIARTERITIS ADJACENT TO DUODENUM ON SLIDE 4.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 180

TRT#: 5

DOSE: 830 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 96-76541

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76896

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Stomach, Forestomach	* Stomach, Glandular
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Brain		Compression	Moderate
		Hydrocephalus	Mild
[Compression TGLS = 5-1]			
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Hydronephrosis	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-8]			
* Nose		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Prostate		Fibrosis	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 181	TRT#: 7	SEX: Male	DAY ON TEST: 730
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76896

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Inflammation	Chronic, Mild
	Germinal Epith	Adenoma	
		Atrophy	Minimal

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 183

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76897

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
* Liver	Renal Tubule	Pigmentation	Mild
		Angiectasis	Minimal
		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
[Clear Cell Focus TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 3-23]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 1-21,2-22]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 183

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76897

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76898

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Small, Jejunum	Epithelium	Hyperplasia	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Intermed	Adenoma	
[Adenoma TGLS = 4-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Moderate
		Inflammation	Chronic, Moderate
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76898

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 449

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 95-73884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Prostate		Inflammation	Chronic, Moderate
* Skin		Inflammation	Chronic, Moderate
Note: MODERATE HEMORRHAGE ASSOC. WITH INFLAMMATION ON SLIDES 21 AND 22; NOT TABULATED.			
[Inflammation TGLS = 2-21,3-22]			
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 186

TRT#: 7

SEX: Male

DAY ON TEST: 711

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	Mesentery
* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Intestine Large, Cecum		Edema	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Necrosis	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
		[Leukemia Mononuclear TGLS = 8-5]	
		[Pigmentation TGLS = 8-5]	
* Liver		Degeneration	Cystic, Marked
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
* Lung		Hemorrhage	Mild
		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
		[Hemorrhage TGLS = 14-2]	
		[Leukemia Mononuclear TGLS = 14-2]	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 186

TRT#: 7

DOSE: 2500 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 711

HISTO: 96-76262

ORGAN AND ACCOUNTABLE SITE STATUS

	Renal	Leukemia Mononuclear Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-26]		
	[Leukemia Mononuclear TGLS = 2-21]		
	[Leukemia Mononuclear TGLS = 9-25]		
	[Leukemia Mononuclear TGLS = 3-22]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-8]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-5]		
* Mammary Gland		Hyperplasia	Mild
* Nose	Respirat Epith	Hyperplasia Inflammation	Moderate Chronic, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
* Pancreas		Leukemia Mononuclear	
	Note: MARKED ANGIECTASIS PROBABLY RESULTING FROM LEUKEMIA MONUC; NOT TABULATED.		
* Preputial Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear Necrosis	Marked
	[Leukemia Mononuclear TGLS = 4-6]		
	[Necrosis TGLS = 6-24]		
* Stom Forestom			
	Note: DIFFUSE FIBROPLASIA IN LAMINA PROPRIA AND AN AREA OF MILD ANGIECTASIS; NOT CODED.		
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
	[Adenoma TGLS = 13-7]		
* Thymus		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 12-3]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 187

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76542

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Nose |
| * Parathyroid Gland | * Preputial Gland | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | | | |

OBSERVATIONS

- | | | | |
|-------------------------------------|--------------|-----------------------|---------------------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Moderate |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Moderate |
| [Pigmentation TGLS = 3-5] | | | |
| * Liver | | Degeneration | Cystic, Mild |
| | | Eosinophilic Focus | |
| | Bile Duct | Hyperplasia | Moderate |
| | | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 5-6] | | | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| | | Leukemia Mononuclear | |
| Lymph Node | Pancreatic | Hemorrhage | Marked |
| | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |
| [Hemorrhage TGLS = 9-7] | | | |
| [Leukemia Mononuclear TGLS = 9-7] | | | |
| [Leukemia Mononuclear TGLS = 6-3] | | | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 187	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76542

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Marked
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
		Adenoma	
		Leukemia Mononuclear	
	[Adenoma TGLS = 2-1]		
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 7-7]		
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
[Pigmentation TGLS = 7-5]			
* Liver		Angiectasis	Mild
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 4-23]			
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Adenoma	
		Carcinoma	
		Inflammation	Chronic, Mild

Note: ADENOMA IS ON SLIDE 8.

[Carcinoma TGLS = 5-22]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 188	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76543

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate	Epithelium	Hyperplasia	Minimal
* Skin		Cyst Epithelial Inclusion	
	[Cyst Epithelial Inclusion TGLS = 1-21]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Leukemia Mononuclear	
	[Hematopoietic Cell Proliferation TGLS = 6-6]		
	[Leukemia Mononuclear TGLS = 6-6]		
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
	Interstit Cell	Hyperplasia	Mild
	[Adenoma TGLS = 2-7]		
	[Atrophy TGLS = 3-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 189

TRT#: 7

SEX: Male

DAY ON TEST: 492

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 96-73992

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Nose		Squamous Cell Carcinoma	
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-7]		

PRIMARY CAUSE OF DEATH

- Nose Squamous Cell Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 190

TRT#: 7

SEX: Male

DAY ON TEST: 539

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Marked
* Liver		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-22]	
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Minimal
* Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
		[Fibrosis TGLS = 4-21]	
		[Leukemia Mononuclear TGLS = 3-6]	
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 190

TRT#: 7
DOSE: 2500 PPM

SEX: Male
DISP: Moribund Sacrifice

DAY ON TEST: 539
HISTO: 96-74434

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-7]	Germinal Epith	Atrophy	Minimal
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PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 191

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76899

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hyperplasia	Focal, Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Infarct	Moderate
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
	[Infarct TGLS = 3-21]		
	[Pigmentation TGLS = 2-5]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 4-22]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Minimal
	Acinus	Hyperplasia	Focal, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-1]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 191	TRT#: 7	SEX: Male	DAY ON TEST: 730
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76899

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 192

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71413

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 193

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76900

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone		Osteosarcoma	
[Osteosarcoma TGLS = 6-23]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Osteosarcoma	Metastatic (Bone)
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 5-22]			
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Preputial Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate	Epithelium	Hyperplasia	Marked
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 193

TRT#: 7
DOSE: 2500 PPM

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 96-76900

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosis TGLS = 4-21]
* Testes

Interstit Cell
Germinal Epith
Interstit Cell

Pigmentation

Adenoma
Atrophy
Hyperplasia

Moderate

Marked
Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 194

TRT#: 7

SEX: Male

DAY ON TEST: 711

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Seminal Vesicle	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	Urethra	

MISSING

* Salivary Glands

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Schwannoma Malignant	Metastatic (Skin)
* Heart		Schwannoma Malignant	Metastatic (Skin)
	[Schwannoma Malignant TGLS = 6-5]		
* Intestine Small, Jejunum		Schwannoma Malignant	Metastatic (Skin)
	[Schwannoma Malignant TGLS = 12-26]		
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
	[Nephropathy TGLS = 10-5]		
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Schwannoma Malignant	Metastatic (Skin)
	[Schwannoma Malignant TGLS = 8-2,9-24]		
* Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
Peritoneum			
	Note: POSSIBLE VERY EARLY MESOTHELIOMA ON SLIDE 7; NOT CODED.		
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 194

TRT#: 7

SEX: Male

DAY ON TEST: 711

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76263

ORGAN AND ACCOUNTABLE SITE STATUS

	Epithelium	Hyperplasia	Marked
		Inflammation	Chronic, Mild
Skeletal Muscle		Schwannoma Malignant	Metastatic (Skin)
[Schwannoma Malignant TGLS = 2-22]			
* Skin	Subcut Tiss	Schwannoma Malignant	
[Schwannoma Malignant TGLS = 3-23,1-21]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Schwannoma Malignant	Metastatic (Skin)
[Schwannoma Malignant TGLS = 5-6]			
* Stomach, Forestomach		Edema	Moderate
	Epithelium	Hyperplasia	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4-7]			
* Urinary Bladder		Edema	Moderate
PRIMARY CAUSE OF DEATH	- Skin Subcut Tiss Schwannoma Malignant		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76901

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 9-10]			
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-8]			
* Nose		Inflammation	Chronic, Mild
Note: INFLAMMAION IS IN NASOLACRIMAL DUCT.			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-1]			
* Skin	Subcut Tiss	Fibroma	
		Squamous Cell Carcinoma	
[Fibroma TGLS = 2-22]			
[Squamous Cell Carcinoma TGLS = 1-21]			
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76901

ORGAN AND ACCOUNTABLE SITE STATUS

Germinal Epith

Atrophy

Marked

[Adenoma TGLS = 5-7]

[Atrophy TGLS = 4-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 196

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 96-75028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Leukemia Mononuclear	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet Leukemia Mononuclear	Minimal
	Renal Tubule	Nephropathy Pigmentation	Mild Minimal
* Liver		Hepatodiaphragmatic Nodule Leukemia Mononuclear	
		[Hepatodiaphragmatic Nodule TGLS = 4-21] [Leukemia Mononuclear TGLS = 2-6]	
* Lung		Infiltration Cellular Leukemia Mononuclear	Histiocyte, Marked
* Lymph Node, Mandibular		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	
		[Adenoma TGLS = 5-1] [Leukemia Mononuclear TGLS = 5-1]	
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 196

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 96-75028

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-6]

* Testes

Interstit Cell

Adenoma

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 197

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet Inflammation Nephropathy	Mild Chronic, Mild Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis Eosinophilic Focus	Mild
	Bile Duct	Hyperplasia Mixed Cell Focus	Mild
* Lung	Alveolar Epith	Hyperplasia Infiltration Cellular	Moderate Histiocyte, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis Pars Distalis	Cyst Hyperplasia	Moderate Focal, Mild
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76545

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Intestine Small, Ileum

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
Lymph Node	Mediastinal	Hemorrhage	Minimal
	Mediastinal	Pigmentation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76545

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLS = 4-3]

[Pigmentation TGLS = 4-3]

Mesentery

Fat

Necrosis

Moderate

[Necrosis TGLS = 6-21]

* Pancreas

Atrophy

Moderate

* Spleen

Hematopoietic Cell Proliferation

Moderate

[Hematopoietic Cell Proliferation TGLS = 2-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 199

TRT#: 7

SEX: Male

DAY ON TEST: 702

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75672

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Trachea	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 16-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
[Leukemia Mononuclear TGLS = 10-5]			
[Pigmentation TGLS = 10-5]			
* Liver	Bile Duct	Degeneration	Cystic, Moderate
		Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 13-6,17-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Iliac	Pigmentation	Marked
[Leukemia Mononuclear TGLS = 14-23]			
[Leukemia Mononuclear TGLS = 9-7]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 199

TRT#: 7

SEX: Male

DAY ON TEST: 702

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75672

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 11-5]		Leukemia Mononuclear	
* Mammary Gland [Hyperplasia TGLS = 2-8]		Hyperplasia	Minimal
Mesentery [Necrosis TGLS = 12-22]	Fat	Necrosis	Moderate
* Pancreas		Atrophy	Marked
* Skin [Squamous Cell Papilloma TGLS = 1-21]		Squamous Cell Papilloma	
* Spleen [Leukemia Mononuclear TGLS = 8-6]		Leukemia Mononuclear	
* Stomach, Forestomach [Ulcer TGLS = 18-24]		Edema Ulcer	Mild Minimal
* Stomach, Glandular Note: ULCER IS ON SLIDE 24.		Ulcer	Moderate
* Testes [Adenoma TGLS = 4-7]	Bilateral, Interstit Cell	Adenoma	
* Thymus [Leukemia Mononuclear TGLS = 15-3]		Leukemia Mononuclear	
* Thyroid Gland [Hemorrhage TGLS = 6-8]	C Cell	Hyperplasia Hemorrhage	Minimal Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 200

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76902

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Mixed Cell Focus	
	[Clear Cell Focus TGLS = 4-22]		
	[Hepatodiaphragmatic Nodule TGLS = 6-24]		
	[Mixed Cell Focus TGLS = 5-23]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Fibrosis	Moderate
* Spleen		Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Marked
	[Fibrosis TGLS = 3-21]		
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 200

TRT#: 7
DOSE: 2500 PPM

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 96-76902

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-7]
[Atrophy TGLS = 2-7]

Germinal Epith

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 201

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76903

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|--------------------------------------|-----------------------|---------------------|
| * Adrenal Cortex | | Degeneration | Fatty, Moderate |
| * Bone Marrow | | Hyperplasia | Minimal |
| * Epididymis | | Atypia Cellular | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | Renal Tubule | Hyaline Droplet | Minimal |
| | | Inflammation | Chronic, Mild |
| | | Nephropathy | Mild |
| | Renal Tubule | Pigmentation | Moderate |
| * Liver | | Angiectasis | Minimal |
| | | Basophilic Focus | |
| | | Clear Cell Focus | |
| | [Clear Cell Focus TGLS = 4-6,5-21] | | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| * Preputial Gland | | Inflammation | Chronic, Mild |
| * Testes | Bilateral, Interstit Cell | Adenoma | |
| | [Adenoma TGLS = 1-7] | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 202

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76904

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy	Fatty, Moderate Focal, Moderate
Note: MILD ANGIECTASIS ASSOCIATED WITH FATTY DEGENERATION AND FOCAL HYPERTROPHY; NOT TABULATED.			
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule Transit Epithe	Hyaline Droplet Hyperplasia Inflammation Nephropathy	Minimal Mild Chronic, Mild Moderate
	Renal Tubule	Pigmentation	Moderate
	[Nephropathy TGLS = 4-5]		
	[Pigmentation TGLS = 4-5]		
* Liver		Basophilic Focus Leukemia Mononuclear Mixed Cell Focus	
Note: MIXED CL FOCUS IS ON SLIDE 21.			
	[Leukemia Mononuclear TGLS = 5-21]		
* Lung		Infiltration Cellular	Histiocyte, Mild
Mesentery		Sarcoma	
	[Sarcoma TGLS = 6-22]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 202

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76904

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Atrophy	Moderate
* Pituitary Gl			
Note: MILD FOCAL GLIOSIS IN PARS NERVOSA; MORPHOLOGY NOT AVAILABLE ON TDMS.			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
[Hyperplasia TGLS = 7-23]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
[Adenoma TGLS = 2-7]			
[Atrophy TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 203

TRT#: 7

SEX: Male

DAY ON TEST: 700

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Stomach, Forestomach	* Stomach, Glandular
------------------------	----------------------

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Edema	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Marked
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[Leukemia Mononuclear TGLS = 7-6,8-23]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Renal	Leukemia Mononuclear	
	Renal	Pigmentation	Marked
[Leukemia Mononuclear TGLS = 6-22]			
[Pigmentation TGLS = 6-22]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 203	TRT#: 7	SEX: Male	DAY ON TEST: 700
	DOSE: 2500 PPM	DISP: Moribund Sacrifice	HISTO: 96-75570

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Fibroadenoma TGLS = 2-21]		Fibroadenoma	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen [Leukemia Mononuclear TGLS = 4-6]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 3-7]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 204

TRT#: 7

SEX: Male

DAY ON TEST: 266

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 95-72627

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-7]			
* Heart		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
Note: MILD TO MODERATE DIFFUSE TUBULAR DILATATION, POSSIBLY ARTIFACTUAL; NOT TABULATED.			
[Leukemia Mononuclear TGLS = 4-5]			
[Pigmentation TGLS = 4-5]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6]			
* Lung		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 1-21]			
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Thyroid Gland		Ultimobranchial Cyst	Moderate
* Urinary Bladder		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 204

TRT#: 7

SEX: Male

DAY ON TEST: 266

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 95-72627

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

Animal Note: LEUKEMIA MONUC IN VIRTUALLY ALL TISSUES IS ACCOMPANIED BY HEMORRHAGE AND NECROS IS.

Animal Note: ARTERIOLES IN NUMEROUS ORGANS CONTAIN BASOPHILIC CONCRETIONS RESEMBLING MINERAL.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 205

TRT#: 7

SEX: Male

DAY ON TEST: 605

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74652

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland |
| * Nose | * Parathyroid Gland | * Preputial Gland | * Salivary Glands |
| * Seminal Vesicle | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|--------------------------|--------------|--------------------------------------|----------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Heart | | Cardiomyopathy | Moderate |
| * Kidney | Renal Tubule | Hyaline Droplet | Minimal |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| | | [Leukemia Mononuclear TGLS = 6-5] | |
| * Liver | | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 7-6] | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Pancreatic | Leukemia Mononuclear | |
| | Renal | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 5-7] | |
| | | [Leukemia Mononuclear TGLS = 9-22] | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 8-5] | |
| * Pancreas | | Atrophy | Marked |
| * Pituitary Gland | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 205

TRT#: 7

SEX: Male

DAY ON TEST: 605

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74652

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 10-1]

* Prostate	Epithelium	Hyperplasia Inflammation	Mild Chronic, Moderate
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* Skin	Subcut Tiss	Fibroma	
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[Fibroma TGLS = 1-21]

* Spleen		Leukemia Mononuclear	
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[Leukemia Mononuclear TGLS = 3-6]

* Stomach, Forestomach		Edema	Mild
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* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
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[Adenoma TGLS = 4-7]

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 206

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76546

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Cecum

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney	Renal Tubule	Cyst	Moderate
		Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Minimal
[Cyst TGLS = 2-21]			
[Pigmentation TGLS = 3-5]			
* Liver		Mixed Cell Focus	
[Mixed Cell Focus TGLS = 6-22]			
* Mammary Gland		Hyperplasia	Minimal
[Hyperplasia TGLS = 1-8-1]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Chronic, Moderate
[Inflammation TGLS = 5-7-1]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 206

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76546

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 207

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Heart		Cardiomyopathy	Mild
Note: AORTA IS ON SLIDE 5.			
* Intestine Small, Ileum		Sarcoma	
[Sarcoma TGLS = 4-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Moderate
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Mild
Note: MODERATE MASTOCYTOSIS; NOT CODED.			
* Pancreas		Atrophy	Minimal
Note: DIFFUSE BASOPHILIA OF ACINAR CELLS; NOT CODED.			
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate	Epithelium	Hyperplasia	Mild
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 6-22]			
* Spleen		Leukemia Mononuclear	
* Stomach, Forestomach		Edema	Moderate
	Epithelium	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 207

TRT#: 7
DOSE: 2500 PPM

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 96-76547

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 1-7]	Bilateral, Interstit Cell	Adenoma
* Thyroid Gland [Adenoma TGLS = 5-3]	C Cell	Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 208

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76905

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Esophagus	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Nose	* Pancreas	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Brain		Angiectasis	Mild
[Angiectasis TGLS = 7-23]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Cecum	Epithelium	Hyperplasia	Mild
[Hyperplasia TGLS = 6-4]		Inflammation	Chronic, Moderate
[Inflammation TGLS = 6-4]			
* Intestine Large, Colon	Epithelium	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Kidney		Infarct	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Infarct TGLS = 4-5]			
[Nephropathy TGLS = 4-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Ectasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 208

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76905

ORGAN AND ACCOUNTABLE SITE STATUS

[Ectasia TGLS = 5-5]

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-21]

* Pituitary Gland

Pars Distalis

Angiectasis

Mild

* Spleen

Hematopoietic Cell Proliferation

Mild

Note: TGL 3-22 IS CONSIDERED A DEVELOPMENTAL MALFORMATION; MORPHOLOGY NOT AVAILABLE ON TDMS.

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 209

TRT#: 7

SEX: Male

DAY ON TEST: 602

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74653

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Atypia Cellular	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Ectasia	Mild
		Hyperplasia	Lymphoid, Marked
[Ectasia TGLS = 3-22]			
[Hyperplasia TGLS = 3-22]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 2-21]			
* Pancreas		Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Inflammation	Chronic Active, Moderate
[Inflammation TGLS = 4-23]			
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 1-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 209

TRT#: 7

SEX: Male

DAY ON TEST: 602

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74653

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 210

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 211

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76548

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
[Nephropathy TGLS = 2-5]			
[Pigmentation TGLS = 2-5]			
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Moderate
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
* Pancreas		Atrophy	Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Adenoma	
		Inflammation	Chronic, Mild
* Skin		Squamous Cell Papilloma	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 4-3]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 211

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76548

ORGAN AND ACCOUNTABLE SITE STATUS

Zymbal's Gland

Carcinoma

[Carcinoma TGLS = 6-22]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 212

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 213

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Mild
* Epididymis		Atypia Cellular	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus	
* Pancreas		Atrophy	Mild
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Atrophy	Marked
[Adenoma TGLS = 3-7]			
[Atrophy TGLS = 4-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 214

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 215

TRT#: 7

SEX: Male

DAY ON TEST: 617

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74787

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-22]			
* Preputial Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
[Hematopoietic Cell Proliferation TGLS = 3-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	C Cell	Carcinoma	

PRIMARY CAUSE OF DEATH

- Preputial Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 216

TRT#: 7

SEX: Male

DAY ON TEST: 634

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74863

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis	Marked
		Cholangiocarcinoma	
	Bile Duct	Hyperplasia	Moderate
	Kupffer Cell	Pigmentation	Mild
[Angiectasis TGLS = 6-6]			
[Cholangiocarcinoma TGLS = 5-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Ectasia	Moderate
[Ectasia TGLS = 4-5]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
Skeletal Muscle		Hemorrhage	Moderate
		Necrosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 216	TRT#: 7	SEX: Male	DAY ON TEST: 634
	DOSE: 2500 PPM	DISP: Moribund Sacrifice	HISTO: 96-74863

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLS = 8-23] [Necrosis TGLS = 8-23] * Stomach, Forestomach	Epithelium	Hyperplasia Squamous Cell Papilloma Ulcer	Moderate Mild
[Hyperplasia TGLS = 7-22] [Squamous Cell Papilloma TGLS = 7-22] [Ulcer TGLS = 7-22] * Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH - Liver Cholangiocarcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 217

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 218

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 219

TRT#: 7

SEX: Male

DAY ON TEST: 654

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose	* Pancreas
* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-10]			
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-1,9-1]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
[Leukemia Mononuclear TGLS = 5-5]		Pigmentation	Mild
[Pigmentation TGLS = 5-5]			
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Ectasia	Marked
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 219

TRT#: 7

SEX: Male

DAY ON TEST: 654

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75013

ORGAN AND ACCOUNTABLE SITE STATUS

[Ectasia TGLS = 7-21]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-6]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 220

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet Inflammation Nephropathy	Minimal Chronic, Moderate Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 2-5]			
* Liver		Angiectasis Basophilic Focus Clear Cell Focus Degeneration Mixed Cell Focus	Mild Cystic, Mild
* Lung		Infiltration Cellular Inflammation	Histiocyte, Mild Chronic, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
[Hyperplasia TGLS = 4-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 221

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hyperplasia	Focal, Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Thrombosis	Mild
Note: ORGANIZED THROMBUS INVOLVING AV VALVE.			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-21]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 221	TRT#: 7	SEX: Male	DAY ON TEST: 731
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76551

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 5-1]			
* Prostate	Epithelium	Adenoma Hyperplasia Inflammation	Mild Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 222

TRT#: 7

SEX: Male

DAY ON TEST: 607

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 96-74788

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Islets, Pancreatic | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|--|---------------------------|------------------|-------------------|
| * Adrenal Cortex | | Hyperplasia | Diffuse, Moderate |
| * Bone Marrow | | Hyperplasia | Marked |
| Note: BONE MARROW HYPERPLASIA APPEARS TO INVOLVE PRIMARILY RE CELLS. | | | |
| * Epididymis | | Atypia Cellular | Moderate |
| * Heart | | Cardiomyopathy | Moderate |
| * Kidney | | Nephropathy | Moderate |
| | Renal Tubule | Pigmentation | Mild |
| [Nephropathy TGLS = 3-5] | | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | Kupffer Cell | Mixed Cell Focus | |
| | | Pigmentation | Mild |
| Note: MILD KUPFFER CELL HYPERPLASIA; NOT TABULATED. | | | |
| * Pancreas | | Atrophy | Moderate |
| * Spleen | | Pigmentation | Moderate |
| * Stomach, Glandular | | Erosion | Moderate |
| * Testes | Bilateral, Interstit Cell | Adenoma | |
| [Adenoma TGLS = 2-7] | | | |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: MARKED MINERALIZATION INVOLVING HEART AND KIDNEY; NOT TABULATED.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 223

TRT#: 7

SEX: Male

DAY ON TEST: 720

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Nose	* Pancreas	* Parathyroid Gland	Peripheral Nerve
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	Spinal Cord
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
		Thrombosis	Marked
[Thrombosis TGLS = 9-5]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Leukemia Mononuclear	
	Kupffer Cell	Pigmentation	Mild
	Hepatocyte	Vacuolization Cytoplasmic	Marked
[Leukemia Mononuclear TGLS = 6-6]			
[Vacuolization Cytoplasmic TGLS = 6-6]			
Lymph Node	Mediastinal	Hemorrhage	Moderate
	Mediastinal	Leukemia Mononuclear	
[Hemorrhage TGLS = 5-22]			
[Leukemia Mononuclear TGLS = 5-22]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
[Hemorrhage TGLS = 8-5]			
* Mammary Gland		Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 223

TRT#: 7

SEX: Male

DAY ON TEST: 720

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76264

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-8]

* Preputial Gland

Inflammation

Chronic, Mild

* Prostate

Inflammation

Chronic, Minimal

* Skin

Cyst Epithelial Inclusion

[Cyst Epithelial Inclusion TGLS = 1-21]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 4-6]

* Stomach, Forestomach

Epithelium

Hyperplasia

Mild

* Testes

Bilateral, Interstit Cell

Ulcer

Moderate

Adenoma

[Adenoma TGLS = 7-7]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 224

TRT#: 7
DOSE: 2500 PPM

SEX: Male
DISP: Scheduled Sacrifice

DAY ON TEST: 185
HISTO: 95-71419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 225

TRT#: 7

SEX: Male

DAY ON TEST: 645

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Moderate
[Pigmentation TGLS = 3-5]	Renal Tubule	Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Infiltration Cellular	Mixed Cell, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 2-21]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 226

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 227

TRT#: 7

SEX: Male

DAY ON TEST: 617

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74789

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Hydronephrosis	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
	[Hydronephrosis TGLS = 7-5]		
	[Pigmentation TGLS = 6-5]		
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Ectasia	Marked
	[Ectasia TGLS = 9-24]		
* Pancreas		Atrophy	Mild
Peritoneum		Mesothelioma Malignant	
	[Mesothelioma Malignant TGLS = 4-22,5-23]		
* Preputial Gland		Carcinoma	
	[Carcinoma TGLS = 1-21]		
* Prostate		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 227

TRT#: 7

SEX: Male

DAY ON TEST: 617

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74789

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

[Adenoma TGLS = 3-7]

Bilateral, Interstit Cell

Leukemia Mononuclear

Adenoma

PRIMARY CAUSE OF DEATH

- Peritoneum Mesothelioma Malignant

CONTRIBUTORY CAUSE OF DEATH

- Preputial Gland Carcinoma;Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 228

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76906

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Skin

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 3-21]			
* Bone Marrow		Hyperplasia	Marked
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Cecum	Epithelium	Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
[Hyperplasia TGLS = 6-4]			
[Inflammation TGLS = 6-4]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
* Lymph Node, Mesenteric		Ectasia	Marked
[Ectasia TGLS = 5-22]			
* Prostate	Epithelium	Hyperplasia	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 228

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76906

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: MODERATE DEGREE OF PERIARTERITIS (VASCULAR INFLAMMATION AND HYPERTROPHY) ASSOCIATED WITH MESENTERY ON SLIDE 7.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 229

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Brain		Compression	Moderate
[Compression TGLS = 1-1]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Inflammation	Chronic, Moderate
	Renal Tubule	Nephropathy	Moderate
[Nephropathy TGLS = 7-5]		Pigmentation	Moderate
[Pigmentation TGLS = 6-5]			
* Liver		Angiectasis	Mild
		Clear Cell Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
		Hepatocellular Adenoma	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Mild
[Hemorrhage TGLS = 3-8]			
* Mammary Gland		Hyperplasia	Minimal
[Hyperplasia TGLS = 4-8]			
* Nose		Inflammation	Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 229

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76552

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland
[Adenoma TGLS = 2-1]

Pars Distalis

Squamous Cell Carcinoma
Adenoma

* Prostate

Fibrosis
Inflammation

Moderate
Chronic, Moderate

* Testes
[Adenoma TGLS = 5-7]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 230

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis	Minimal
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Hemorrhage	Marked
[Hemorrhage TGLS = 4-3]			
Mesentery		Sarcoma	
[Sarcoma TGLS = 1-21]			
* Pancreas		Atrophy	Moderate
* Prostate		Inflammation	Chronic, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 231

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 232

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adren Cortex			
Note: FOCUS OF OSSEOUS METAPLASIA; CONSIDERED INCIDENTAL FINDING AND NOT TABULATED.			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatocellular Adenoma	
[Eosinophilic Focus TGLS = 6-23]			
[Hepatocellular Adenoma TGLS = 4-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Prostate	Epithelium	Hyperplasia	Marked
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 1-21]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thyroid Gland	Follicle	Cyst	Moderate
[Cyst TGLS = 5-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 233

TRT#: 7

SEX: Male

DAY ON TEST: 590

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74631

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone Marrow		Hyperplasia	Mild
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 3-22]			
* Pancreas		Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Skin		Trichoepithelioma	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

- Skin Trichoepithelioma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 234

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76555

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Thymus

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Infarct	Moderate
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lymph Node, Mandibular		Hemorrhage	Mild
* Pancreas		Atrophy	Mild
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Adenoma	
		Fibrosis	Mild
		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 235

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76556

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Brain		Compression	Moderate
[Compression TGLS = 7-1]			
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney		Inflammation	Chronic, Mild
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 6-5]			
* Liver		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
Lymph Node	Mediastinal	Hemorrhage	Moderate
	Mediastinal	Pigmentation	Mild
[Hemorrhage TGLS = 5-3]			
[Pigmentation TGLS = 5-3]			
* Lymph Node, Mandibular		Pigmentation	Mild
[Pigmentation TGLS = 1-8]			
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 10-8]			
Mesentery	Fat	Necrosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:10
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 235	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 2500 PPM	DISP: Terminal Sacrifice	HISTO: 96-76556

ORGAN AND ACCOUNTABLE SITE STATUS

[Necrosis TGLS = 4-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 8-1]			
* Preputial Gland		Adenoma Inflammation	Chronic, Mild
[Adenoma TGLS = 9-8]			
* Prostate		Inflammation	Chronic, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 236

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76557

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 3-5]			
* Liver		Clear Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-21]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 237

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76558

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Atypia Cellular	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Moderate
		Infiltration Cellular	Histiocyte, Minimal
[Hyperplasia TGLS = 2-2]			
* Preputial Gland		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 238

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76559

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Bone Marrow		Hyperplasia	Mild
* Brain		Compression	Moderate
[Compression TGLS = 7-1]			
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Inflammation	Chronic, Mild
		Nephropathy	Mild
[Nephropathy TGLS = 5-5]	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 6-5]			
* Liver	Kupffer Cell	Pigmentation	Moderate
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 2-8]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-22]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 8-1]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 238

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76559

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin Basal Cell Carcinoma

[Basal Cell Carcinoma TGLS = 1-21]

* Testes Bilateral, Interstit Cell Adenoma

[Adenoma TGLS = 3-7]

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:10

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 239

TRT#: 7

SEX: Male

DAY ON TEST: 597

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74654

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------|--|----------|
| * Adrenal Cortex | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Epididymis | | Atypia Cellular | Moderate |
| * Intestine Small, Ileum | | Leukemia Mononuclear | |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Mild |
| | | Pigmentation | Moderate |
| * Liver | | Hepatodiaphragmatic Nodule | |
| | | Leukemia Mononuclear | |
| | | [Hepatodiaphragmatic Nodule TGLS = 8-24] | |
| | | [Leukemia Mononuclear TGLS = 7-6] | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Deep Cervical | Leukemia Mononuclear | |
| | Inguinal | Leukemia Mononuclear | |
| | Mediastinal | Leukemia Mononuclear | |
| | Pancreatic | Leukemia Mononuclear | |
| | | [Leukemia Mononuclear TGLS = 2-21] | |
| | | [Leukemia Mononuclear TGLS = 10-3] | |
| | | [Leukemia Mononuclear TGLS = 4-22] | |
| | | [Leukemia Mononuclear TGLS = 11-25] | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 239

TRT#: 7

SEX: Male

DAY ON TEST: 597

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74654

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-5]			
* Preputial Gland		Inflammation	Chronic, Mild
* Prostate		Inflammation	Chronic, Moderate
* Saliv Glands			
Note: MINIMAL FOCAL ATROPHY OF PAROTID GLAND; NOT TABULATED.			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6,6-23]			
* Stomach, Forestomach		Edema	Moderate
		Ulcer	Mild
[Ulcer TGLS = 13-4]			
* Stomach, Glandular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-4]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-7]			
* Thymus		Leukemia Mononuclear	
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 240

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76560

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Epididymis		Atypia Cellular	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 2-5]			
* Liver		Clear Cell Focus	
		Mixed Cell Focus	
[Mixed Cell Focus TGLS = 3-21,4-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Chronic, Minimal
* Nose		Foreign Body	
* Prostate		Inflammation	Chronic, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 241

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77142

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2-21]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
		Necrosis	Focal, Minimal
[Basophilic Focus TGLS = 4-23]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 3-22]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 242

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 243

TRT#: 2

SEX: Female

DAY ON TEST: 725

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Brain		Compression	Moderate
[Compression TGLS = 7-1]			
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 1-21]			
[Hyperplasia TGLS = 2-8]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			
* Spleen		Leukemia Mononuclear	
		Pigmentation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 243

TRT#: 2

SEX: Female

DAY ON TEST: 725

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76501

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

* Uterus

Sarcoma Stromal

[Sarcoma Stromal TGLS = 4-22]

PRIMARY CAUSE OF DEATH

- Uterus Sarcoma Stromal

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma;Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 244

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77143

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Stomach, Glandular	* Trachea	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration Leukemia Mononuclear	Fatty, Mild
[Leukemia Mononuclear TGLS = 5-10]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear Nephropathy Pigmentation	Minimal Mild
	Renal Tubule	Basophilic Focus Leukemia Mononuclear	
* Liver			
[Leukemia Mononuclear TGLS = 6-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
Lymph Node	Iliac	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-23]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-22]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 1-21]			
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 244

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77143

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-6]

* Stomach, Forestomach

Leukemia Mononuclear

* Thymus

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 7-3]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

* Urinary Bladder

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 245

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77144

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Infiltration Cellular	Mixed Cell, Moderate
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Ovary		Cyst	Moderate
* Pancreas		Atrophy	Minimal
* Skin	Epidermis	Hyperplasia	Moderate
		Ulcer	Moderate
		[Hyperplasia TGLS = 1-21]	
		[Ulcer TGLS = 1-21]	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Uterus		Hydrometra	Mild
		Polyp Stromal	
		[Polyp Stromal TGLS = 2-22]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 246

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76561

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Mild
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
Note: ADENOMA IS ON SLIDE 4.			
* Kidney	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Mammary Gland		Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 247

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76562

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Esophagus	* Parathyroid Gland
-------------	---------------------

OBSERVATIONS

* Clitoral Gland		Hyperplasia	Mild
Eye		Cataract	Marked
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-22]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 248

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Infiltration Cellular	Mixed Cell, Minimal
Note: BASOPHILIC FOCI PRESENT ON SLIDES 6 AND 23.			
			[Eosinophilic Focus TGLS = 5-23]
			[Hepatodiaphragmatic Nodule TGLS = 4-22]
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
			[Alveolar/Bronchiolar Adenoma TGLS = 7-2-1]
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
			[Fibroadenoma TGLS = 1-21]
* Ovary		Cyst	Marked
			[Cyst TGLS = 2-7]
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 248	TRT#: 2	SEX: Female	DAY ON TEST: 731
	DOSE: 0 PPM	DISP: Terminal Sacrifice	HISTO: 96-76563

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLS = 6-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Moderate
Note: C CELL HYPERPLASIA IS IN OPPOSITE LOBE FROM ADENOMA.			
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 3-7]			

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 249

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76564

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Minimal
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 4-22]		
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 2-8]		
* Pituitary Gland	Pars Intermed	Adenoma	
	[Adenoma TGLS = 5-1]		
* Skin		Schwannoma Malignant	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 250

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Clitoral Gland		Carcinoma	
		Hyperplasia	Moderate
		Inflammation	Chronic, Mild
[Carcinoma TGLS = 1-21]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-22]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 251

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 497

HISTO: 96-74005

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Adrenal Medulla

OBSERVATIONS

* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Clitoral Gland		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
[Eosinophilic Focus TGLS = 8-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Minimal
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-7]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 2-6]			
* Stomach, Forestomach	Epithelium	Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 251

TRT#: 2

SEX: Female

DAY ON TEST: 497

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74005

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 6-4]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 252

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 610

HISTO: 96-74790

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone	Cranium	Osteopetrosis	Mild
[Osteopetrosis TGLS = 5-23]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
Lacrimal Gland		Carcinoma	
[Carcinoma TGLS = 4-22]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-21]		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thymus		Thymoma Benign	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Lacrimal Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 253

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77145

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Hyaline Droplet	Fatty, Moderate Focal, Mild
* Kidney	Renal Tubule	Nephropathy Pigmentation	Mild Minimal
* Liver	Renal Tubule	Basophilic Focus Eosinophilic Focus Infiltration Cellular Mixed Cell Focus	Mixed Cell, Minimal
Note: MIXED CL FOCUS ALSO ON SLIDE 6. [Mixed Cell Focus TGLS = 4-22,5-23]			
* Lung		Infiltration Cellular Pigmentation	Histiocyte, Minimal Mild
* Lymph Node, Mandibular		Fibroadenoma Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-21] [Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-1]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 254

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77146

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Infiltration Cellular	Mixed Cell, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Minimal
* Mammary Gland		Hyperplasia	Mild
* Nose		Inflammation	Chronic, Mild
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Pigmentation	Moderate
* Stom Gland			

Note: ZONE OF INCREASED BASOPHILIA IN SUPERFICIAL MUCOSA; CONSIDERED TO BE ARTIFACT, POSSIBLY RELATED TO FIXATION.

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 255

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71423

OBSERVATIONS

* Kidney

Renal Tubule

Pigmentation

Minimal

* Liver

Basophilic Focus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 256

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77147

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
		Basophilic Focus	
* Liver			
[Basophilic Focus TGLS = 3-6]			
* Lymph Node, Mandibular		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Pancreas		Metaplasia	Hepatocyte, Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
[Cyst TGLS = 2-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 257

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Nephropathy

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 258

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 544

HISTO: 96-74432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland
Peripheral Nerve	* Pituitary Gland	* Salivary Glands	* Skin
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2-22]			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 9-21]		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-23]			
* Mammary Gland		Hyperplasia	Moderate
* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Pancreas		Atrophy	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 258

TRT#: 2

SEX: Female

DAY ON TEST: 544

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74432

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 259

TRT#: 2
DOSE: 0 PPM

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST: 187
HISTO: 95-71425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney Renal Tubule Pigmentation Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 260

TRT#: 2

SEX: Female

DAY ON TEST: 630

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74864

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Marked
* Bone Marrow		Hyperplasia	Mild
* Brain		Compression	Moderate
[Compression TGLS = 6-1]			
* Kidney	Transit Epithe	Hyperplasia	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
[Eosinophilic Focus TGLS = 3-22,7-23]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 1-21]			
[Hyperplasia TGLS = 2-8]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Ovary		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Uterus		Hyperplasia	Cystic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 260

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 630

HISTO: 96-74864

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 4-7]

[Inflammation TGLS = 4-7]

Inflammation

Chronic, Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 261

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77148

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Brain	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Bone		Osteosarcoma	
[Osteosarcoma TGLS = 9-24]			
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Mild
		Hemorrhage	Marked
		Mixed Cell Focus	
		Necrosis	Focal, Marked
[Eosinophilic Focus TGLS = 6-6]			
[Hematopoietic Cell Proliferation TGLS = 4-6]			
[Hemorrhage TGLS = 5-23]			
[Mixed Cell Focus TGLS = 10-26]			
[Necrosis TGLS = 5-23]			
* Lung		Osteosarcoma	Metastatic (Bone)
[Osteosarcoma TGLS = 7-2,8-25]			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 261

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77148

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLS = 1-21]

* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Marked

		Osteosarcoma	Metastatic (Bone)
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[Osteosarcoma TGLS = 3-22]

* Uterus		Hydrometra	Moderate
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[Hydrometra TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 262

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77149

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hemorrhage	Mild
* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Basophilic Focus TGLS = 4-23,3-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	Note: HYPERPLASIA PRESENT ON SLIDE 21.		
	[Fibroadenoma TGLS = 1-21]		
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
	[Angiectasis TGLS = 5-1]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-22]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 262

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77149

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 263

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77150

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Clitoral Gland		Inflammation	Chronic, Marked
Note: PORTION OF INFLAMMATION DETACHED FROM REMAINDER OF CLITORAL GLAND.			
[Inflammation TGLS = 2-8]			
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
[Basophilic Focus TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
* Spleen		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 264

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77151

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
	[Basophilic Focus TGLS = 1-6]		
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
* Skin	Epidermis	Hyperplasia	Mild
		Inflammation	Chronic, Marked

Note: CHRONIC INFLAMMATION EXTENDS INTO UNDERLYING MUSCULATURE.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 264

TRT#: 2
DOSE: 0 PPM

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 732
HISTO: 96-77151

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-21]
[Inflammation TGLS = 2-21]

* Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 265

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 527

HISTO: 96-74183

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 2-21]			
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 266

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76566

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone	Femur	Osteopetrosis	Mild
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]		Necrosis	Focal, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 267

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71426

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

* Liver

Basophilic Focus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 268

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hyperplasia	Focal, Moderate
[Hyperplasia TGLS = 4-22]			
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
* Ovary		Cyst	Marked
[Cyst TGLS = 3-7]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
* Skin	Epidermis	Hyperplasia	Mild
		Ulcer	Moderate
[Hyperplasia TGLS = 1-21]			
[Ulcer TGLS = 1-21]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 269

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Marked
Note: SMALL AMOUNT OF MATERIAL RESEMBLING AMYLOID IN ONE ADRENAL CORTEX; NOT CODED.			
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Mild
	[Osteopetrosis TGLS = 2-21]		
* Brain		Compression	Moderate
	[Compression TGLS = 3-1]		
* Clitoral Gland		Adenoma	
	[Adenoma TGLS = 5-8]		
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-1]		
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Hydrometra	Mild
		Polyp Stromal	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 269

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76568

ORGAN AND ACCOUNTABLE SITE STATUS

[Hydrometra TGLS = 6-7]

[Polyp Stromal TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 270

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		[Basophilic Focus TGLS = 2-6]	
		[Eosinophilic Focus TGLS = 2-6]	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Polyp Stromal	
		[Polyp Stromal TGLS = 1-7]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 271

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71427

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 272

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 630

HISTO: 96-74865

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 4-21]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
	Kupffer Cell	Pigmentation	Mild
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
	[Leukemia Mononuclear TGLS = 7-6]		
	[Vacuolization Cytoplasmic TGLS = 7-6]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 1-8]		
	[Hyperplasia TGLS = 1-8]		
* Ovary		Cyst	Marked
	[Cyst TGLS = 2-7]		
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	[Angiectasis TGLS = 5-1]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 272

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 630

HISTO: 96-74865

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen	Leukemia Mononuclear	
* Stomach, Forestomach	Edema	Moderate
* Uterus	Polyp Stromal	
[Polyp Stromal TGLS = 3-7]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 273

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 274

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 646

HISTO: 96-74935

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus	Vagina		

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Mild
	[Osteopetrosis TGLS = 6-25]		
* Brain		Compression	Moderate
		Hydrocephalus	Moderate
	[Compression TGLS = 7-1]		
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
	[Cataract TGLS = 1-21]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Moderate
		Mixed Cell Focus	
	Note: MIXED CL FOCUS ALSO ON SLIDE 6.		
	[Infiltration Cellular TGLS = 5-24]		
	[Mixed Cell Focus TGLS = 5-24]		
* Lung		Infiltration Cellular	Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 274

TRT#: 2

SEX: Female

DAY ON TEST: 646

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74935

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular

Pigmentation

Moderate

* Mammary Gland

Fibroadenoma

Multiple

Hyperplasia

Moderate

[Fibroadenoma TGLS = 2-22,3-23]

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 8-1]

* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 275

TRT#: 2

SEX: Female

DAY ON TEST: 648

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-74936

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Small, Duodenum	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 2-6]			
[Mixed Cell Focus TGLS = 2-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma
 CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 275

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 648

HISTO: 96-74936

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 276

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77152

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Minimal
* Spleen		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 277

TRT#: 2

SEX: Female

DAY ON TEST: 596

DOSE: 0 PPM

DISP: Natural Death

HISTO: 96-74637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	Eye	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Brain		Compression	Moderate
		Hydrocephalus	Mild
Note: MODERATE HEMORRHAGE AND MILD NECROSIS IN PONS IN AREA OF COMPRESSION; NOT TABULATED.			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Lung		Hemorrhage	Moderate
[Hemorrhage TGLS = 5-2]			
* Lymph Node, Mandibular		Hemorrhage	Mild
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 3-22,4-23]			
[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-1]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma
 CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 278

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71429

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 279

TRT#: 2

SEX: Female

DAY ON TEST: 685

DOSE: 0 PPM

DISP: Natural Death

HISTO: 96-75231

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Moderate
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Ovary		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
	[Adenoma TGLS = 3-1]		
	[Cyst TGLS = 3-1]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Moderate
* Uterus		Hydrometra	Marked
	[Hydrometra TGLS = 1-7-1]	Polyp Stromal	
	[Polyp Stromal TGLS = 1-7-1]		

PRIMARY CAUSE OF DEATH

- Uterus Polyp Stromal

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 280

TRT#: 2

SEX: Female

DAY ON TEST: 704

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75673

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Adrenal Medulla

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Diffuse, Mild
Note: CYST IN ADRENAL CORTEX; MORPHOLOGY NOT AVAILABLE ON TDMS.			
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Marked
[Hematopoietic Cell Proliferation TGLS = 2-6]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 280

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 704

HISTO: 96-75673

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Clitoral Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 281

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 645

HISTO: 96-74885

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	Vagina	

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Cyst	Moderate
		Inflammation	Chronic, Moderate
[Cyst TGLS = 4-8]			
[Inflammation TGLS = 4-8]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Pigmentation	Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-6]			
* Lung		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 3-8]			
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
[Angiectasis TGLS = 13-1]			
* Spleen		Hemorrhage	Marked
		Leukemia Mononuclear	
[Hemorrhage TGLS = 8-23]			
[Leukemia Mononuclear TGLS = 7-6]			
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 11-25]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 281

TRT#: 2

SEX: Female

DAY ON TEST: 645

DOSE: 0 PPM

DISP: Natural Death

HISTO: 96-74885

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 282

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone [Osteopetrosis TGLS = 5-21]	Cranium	Osteopetrosis	Moderate
* Brain [Compression TGLS = 4-1]		Compression	Moderate
* Kidney	Renal Tubule	Nephropathy Pigmentation	Minimal Minimal
* Liver [Basophilic Focus TGLS = 2-6]		Basophilic Focus Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland [Hyperplasia TGLS = 1-8]		Hyperplasia	Marked
* Pituitary Gland [Adenoma TGLS = 3-1]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 283

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76571

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-6]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 284

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Marked
	[Osteopetrosis TGLS = 3-22]		
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Chronic, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Minimal
* Skin		Keratoacanthoma	
	[Keratoacanthoma TGLS = 1-21]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Uterus		Polyp Stromal	
	[Polyp Stromal TGLS = 2-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 285

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
[Eosinophilic Focus TGLS = 2-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 286

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77153

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell
Follicle

Carcinoma
Cyst

Moderate

[Carcinoma TGLS = 6-3]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 287

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 288

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77154

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Hyperplasia	Mild
[Adenoma TGLS = 1-8]			
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
[Basophilic Focus TGLS = 5-6]			
[Clear Cell Focus TGLS = 5-6]			
[Eosinophilic Focus TGLS = 5-6]			
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Moderate
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-21,3-22,4-23]			
* Ovary		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 288

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77154

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Pigmentation

Hyperplasia

Moderate

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 289

TRT#: 2

SEX: Female

DAY ON TEST: 725

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-76502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hyperplasia	Focal, Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	[Hepatodiaphragmatic Nodule TGLS = 3-22]	Hepatodiaphragmatic Nodule	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
* Nose		Inflammation	Chronic, Mild
* Ovary		Cyst	Marked
	[Cyst TGLS = 2-7]		
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Skin	Subcut Tiss	Fibroma	
	[Fibroma TGLS = 1-21]		
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 290

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77155

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
[Basophilic Focus TGLS = 4-6]			
[Eosinophilic Focus TGLS = 4-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Marked
[Fibroadenoma TGLS = 1-21,2-22]			
[Hyperplasia TGLS = 6-8]			
* Nose	Goblet Cell	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Mild
* Ovary		Cyst	Moderate
[Cyst TGLS = 3-7]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 290

TRT#: 2
DOSE: 0 PPM

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 732
HISTO: 96-77155

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 291

TRT#: 2

SEX: Female

DAY ON TEST: 448

DOSE: 0 PPM

DISP: Natural Death

HISTO: 95-73883

ORGAN AND ACCOUNTABLE SITE STATUS

MISSING

* Intestine Large, Rectum

AUTO PRECLUDES DIAG.

* Adrenal Cortex

* Adrenal Medulla

* Bone

* Bone Marrow

* Brain

* Clitoral Gland

* Esophagus

* Heart

* Intestine Large, Cecum

* Intestine Large, Colon

* Intestine Small, Duodenum

* Intestine Small, Ileum

* Intestine Small, Jejunum

* Islets, Pancreatic

* Kidney

* Liver

* Lung

* Lymph Node, Mandibular

* Lymph Node, Mesenteric

* Mammary Gland

* Nose

* Ovary

* Pancreas

* Parathyroid Gland

* Pituitary Gland

* Salivary Glands

* Skin

* Stomach, Forestomach

* Stomach, Glandular

* Thymus

* Thyroid Gland

* Trachea

* Urinary Bladder

* Uterus

OBSERVATIONS

* Spleen

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 292

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77156

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Moderate
* Brain		Compression	Moderate
		Hydrocephalus	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		[Basophilic Focus TGLS = 3-6]	
		[Eosinophilic Focus TGLS = 3-6]	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 1-21]	
		[Hyperplasia TGLS = 2-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 5-1]	
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Carcinoma	
		[Carcinoma TGLS = 4-3]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 293

TRT#: 2

SEX: Female

DAY ON TEST: 187

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 294

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77157

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
[Cyst TGLS = 2-1]			
* Salivary Glands		Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Hydrometra	Moderate
[Hydrometra TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 295

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-77158

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland		Ultimobranchial Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 296

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 96-76574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Transit Epithe	Hyperplasia	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 3-8]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
[Cyst TGLS = 4-1]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 297

TRT#: 2

SEX: Female

DAY ON TEST: 704

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75674

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Marked
[Pigmentation TGLS = 5-5]			
* Liver	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[Leukemia Mononuclear TGLS = 10-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-24]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Mild
Note: MILD EPITHELIAL DYSPLASIA IN MAMMARY GLAND FIBROADENOMAS.			
[Fibroadenoma TGLS = 1-21,7-23]			
Mesentery	Fat	Necrosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 297

TRT#: 2

SEX: Female

DAY ON TEST: 704

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75674

ORGAN AND ACCOUNTABLE SITE STATUS

[Necrosis TGLS = 4-22]

* Pituitary Gland

Pars Distalis

Hyperplasia

Focal, Moderate

Leukemia Mononuclear

[Hyperplasia TGLS = 9-1]

[Leukemia Mononuclear TGLS = 9-1]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-6]

* Thyroid Gland

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 298

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 686

HISTO: 96-75228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	Peripheral Nerve
* Salivary Glands	* Skin	Spinal Cord	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Intestine Small, Ileum

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Inflammation	Chronic, Moderate
* Kidney	Renal Tubule	Necrosis	Mild
	Renal Tubule	Nephropathy	Minimal
	[Necrosis TGLS = 3-22]	Pigmentation	Minimal
* Liver	Kupffer Cell	Leukemia Mononuclear	
	Hepatocyte	Pigmentation	Moderate
	[Leukemia Mononuclear TGLS = 4-6]	Vacuolization Cytoplasmic	Marked
* Lung		Infiltration Cellular	Histiocyte, Minimal
	Lymph Node	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-23]	Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
		Pigmentation	Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 298

TRT#: 2

SEX: Female

DAY ON TEST: 686

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 96-75228

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear

[Necrosis TGLS = 2-21]

Necrosis

Marked

* Uterus

Polyp Stromal

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 299

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76575

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Clitoral Gland [Adenoma TGLS = 2-8]		Adenoma	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
		Infiltration Cellular	Histiocyte, Minimal
* Lung Lymph Node [Pigmentation TGLS = 3-3]	Mediastinal	Pigmentation	Moderate
* Mammary Gland [Hyperplasia TGLS = 1-8]		Hyperplasia	Marked
* Pituitary Gland [Adenoma TGLS = 4-1]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 300

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Clitoral Gland		Adenoma	
[Adenoma TGLS = 4-8]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Mammary Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 1-8-1]			
* Nose	Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Inflammation	Chronic, Mild
		Metaplasia	Squamous, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
[Angiectasis TGLS = 3-1]			
[Cyst TGLS = 3-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 301

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77159

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Bone	Femur	Osteopetrosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	Multiple
[Polyp Stromal TGLS = 2-21,3-21]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 302

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77160

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

Eye		Cataract	Minimal
	Retina	Degeneration	Moderate
[Cataract TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 3-6]			
[Mixed Cell Focus TGLS = 4-22]			
* Lymph Node, Mandibular		Hemorrhage	Mild
		Pigmentation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 2-23]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 303

TRT#: 4

SEX: Female

DAY ON TEST: 600

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-74656

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Necrosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Necrosis	Focal, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
Note: CELLS RESEMBLING THOSE OF THYMOMA MAL ALONG PLEURAL SURFACE.			
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Spleen		Necrosis	Moderate
[Necrosis TGLS = 4-6]			
* Thymus		Thymoma Malignant	
[Thymoma Malignant TGLS = 2-21]			

PRIMARY CAUSE OF DEATH

- Thymus Thymoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 304

TRT#: 4

SEX: Female

DAY ON TEST: 646

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74937

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Vagina	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-10]			
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5]		Pigmentation	Minimal
[Pigmentation TGLS = 4-5]			
* Liver	Kupffer Cell	Leukemia Mononuclear	
	Hepatocyte	Pigmentation	Mild
[Leukemia Mononuclear TGLS = 6-6]		Vacuolization Cytoplasmic	Marked
[Vacuolization Cytoplasmic TGLS = 6-6]			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-2]			
* Lymph Node, Mandibular		Ectasia	Mild
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
* Ovary		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-7]			
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 304	TRT#: 4	SEX: Female	DAY ON TEST: 646
	DOSE: 280 PPM	DISP: Moribund Sacrifice	HISTO: 96-74937

ORGAN AND ACCOUNTABLE SITE STATUS

	Pars Distalis	Cyst	Moderate
	Pars Intermed	Cyst	Moderate
		Leukemia Mononuclear	
[Adenoma TGLS = 9-1]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-6]			
* Stomach, Forestomach		Edema	Moderate
* Thymus		Leukemia Mononuclear	
* Uterus		Hydrometra	Minimal
[Hydrometra TGLS = 3-7]			
Vagina			
Note: VAGINA APPEARS TO BE IN STAGE OF DIESTRUS; NO LESION OBSERVED.			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 305

TRT#: 4

SEX: Female

DAY ON TEST: 624

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74830

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

Vagina

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-10]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Leukemia Mononuclear	
		Pigmentation	Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-23]			
[Leukemia Mononuclear TGLS = 8-24]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Mild
* Ovary		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 305

TRT#: 4

SEX: Female

DAY ON TEST: 624

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74830

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 9-1]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 4-6]

* Stomach, Glandular

Erosion

Minimal

[Erosion TGLS = 11-22]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 306

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77161

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
[Eosinophilic Focus TGLS = 5-21]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 307

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77162

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Islets, Pancreatic		Carcinoma	
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 308

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 309

TRT#: 4

SEX: Female

DAY ON TEST: 575

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus	Vagina		

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-10]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-7]			
[Leukemia Mononuclear TGLS = 7-21]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 2-8]			
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 310

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77163

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Marked
	[Osteopetrosis TGLS = 3-22]		
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 2-23]		
	[Hyperplasia TGLS = 5-8]		
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
	[Angiectasis TGLS = 4-1]		
* Skin	Subcut Tiss	Fibrosarcoma	
	[Fibrosarcoma TGLS = 1-21,6-8]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Carcinoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 310

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77163

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 311

TRT#: 4

SEX: Female

DAY ON TEST: 396

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 95-73727

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone		Osteosarcoma	
[Osteosarcoma TGLS = 2-21]			
* Bone Marrow		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Necrosis	Moderate
[Necrosis TGLS = 4-6]			
* Lung		Hemorrhage	Mild
		Infiltration Cellular	Histiocyte, Mild
		Osteosarcoma	Metastatic (Bone)
[Osteosarcoma TGLS = 3-2]			
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

- Bone Osteosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 312

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 4-5]	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	[Clear Cell Focus TGLS = 6-21]		
	[Hepatodiaphragmatic Nodule TGLS = 7-22]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 2-8]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-1]		
* Skin		Hyperkeratosis	Mild
	Epidermis	Hyperplasia	Mild
	[Hyperkeratosis TGLS = 1-23]		
	[Hyperplasia TGLS = 1-23]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 312

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76577

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 313

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Moderate
* Heart		Inflammation	Chronic Active, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Ovary	Bilateral	Granulosa Cell Tumor Benign	
* Spleen		Hematopoietic Cell Proliferation	Minimal
	[Leukemia Mononuclear TGLS = 4-6]	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 314

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-1]			
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 315

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76580

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Adenoma	
* Brain		Compression	Moderate
[Compression TGLS = 2-1]			
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Chronic, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Skin		Ulcer	Marked
[Ulcer TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 316

TRT#: 4

SEX: Female

DAY ON TEST: 572

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74513

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Nose		Inflammation	Chronic, Mild
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Intermed	Carcinoma	
[Carcinoma TGLS = 5-1]			
* Spleen		Pigmentation	Marked
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Intermed Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 317

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77164

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 1-21]	
		[Hyperplasia TGLS = 2-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 3-1]	
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 318

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 319

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 320

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77165

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Moderate
[Basophilic Focus TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	Follicular Cel	Carcinoma	
[Carcinoma TGLS = 3-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 321

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77166

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 322

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 323

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77167

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Bone Marrow		Infiltration Cellular	Histiocyte, Mild
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
[Basophilic Focus TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mesenteric		Hemorrhage	Mild
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 4-21]			
* Ovary		Cyst	Marked
[Cyst TGLS = 2-7]			
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
[Angiectasis TGLS = 6-1]			
* Spleen		Pigmentation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 323

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77167

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 324

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77168

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
		Necrosis	Focal, Minimal
	Kupffer Cell	Pigmentation	Mild
	[Leukemia Mononuclear TGLS = 1-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
* Uterus		Hydrometra	Mild
		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 325

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77169

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
Note: CLEAR CL FOCUS IS ON SLIDE 22.			
		[Basophilic Focus TGLS = 3-6]	
		[Hepatodiaphragmatic Nodule TGLS = 2-22]	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
		[Fibroadenoma TGLS = 1-21]	
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Hyperplasia	Focal, Moderate
		[Angiectasis TGLS = 4-1]	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Leukemia Mononuclear	
* Uterus		Polyp Stromal	
		[Polyp Stromal TGLS = 5-7]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 325

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77169

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 326

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76581

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lymph Node, Mesenteric		Hemorrhage	Minimal
* Mammary Gland		Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 327

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76582

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		[Basophilic Focus TGLS = 2-6]	
		[Clear Cell Focus TGLS = 2-6]	
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Mild
		[Hyperplasia TGLS = 1-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 3-1]	
* Spleen		Depletion Cellular	Mild
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 328

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76583

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Infiltration Cellular	Mixed Cell, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-22,3-23]			
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: LARGE AREA OF ANGIECTASIS ALMOST OBSCURING ADENOMA; CONSIDERED PART OF TUMOR AND NOT CODED.			
[Adenoma TGLS = 4-1]			
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 328

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76583

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 329

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
Mesentery		Accessory Spleen	
[Accessory Spleen TGLS = 4-21]			
* Nose	Respirat Epith	Hyperplasia	Mild
* Ovary		Cyst	Marked
[Cyst TGLS = 2-7]			
* Pancreas		Atrophy	Minimal
Note: ATROPHY IS ON SLIDE 21.			
* Spleen		Pigmentation	Moderate
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 3-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 330

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76585

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Minimal
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
[Cyst TGLS = 2-1]			
* Spleen		Pigmentation	Moderate
* Uterus		Hyperplasia	Cystic, Mild
		Polyp Stromal	
[Polyp Stromal TGLS = 1-21]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 331

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77170

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Brain	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Mild
	[Osteopetrosis TGLS = 5-22]		
* Bone Marrow		Infiltration Cellular	Histiocyte, Moderate
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Hemangioma	
		Infiltration Cellular	Mixed Cell, Mild
		Mixed Cell Focus	
	[Basophilic Focus TGLS = 3-6]		
	[Hemangioma TGLS = 4-21]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 331	TRT#: 4	SEX: Female	DAY ON TEST: 732
	DOSE: 280 PPM	DISP: Terminal Sacrifice	HISTO: 96-77170

ORGAN AND ACCOUNTABLE SITE STATUS

	Pars Distalis	Hyperplasia	Focal, Moderate
[Angiectasis TGLS = 6-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 332

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 656

HISTO: 96-75014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone	Femur	Osteopetrosis	Mild
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 3-8-1]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-21]		Hyperplasia	Marked
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Pigmentation	Marked

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Clitoral Gland Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 333

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 334

TRT#: 4

SEX: Female

DAY ON TEST: 634

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-74932

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|-------------------|--------------|--|---------------------|
| * Adrenal Cortex | | Hyperplasia | Focal, Mild |
| | | Leukemia Mononuclear | |
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Clitoral Gland | | Carcinoma | |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | | Leukemia Mononuclear | |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Mild |
| | | [Leukemia Mononuclear TGLS = 7-5] | |
| | | [Pigmentation TGLS = 7-5] | |
| * Liver | | Basophilic Focus | |
| | | Leukemia Mononuclear | |
| | Hepatocyte | Vacuolization Cytoplasmic | Moderate |
| | | [Leukemia Mononuclear TGLS = 8-6] | |
| | | [Vacuolization Cytoplasmic TGLS = 8-6] | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| | | Leukemia Mononuclear | |
| Lymph Node | Mediastinal | Leukemia Mononuclear | |
| | Mediastinal | Pigmentation | Marked |
| | | [Leukemia Mononuclear TGLS = 6-23] | |
| | | [Pigmentation TGLS = 6-23] | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 334	TRT#: 4	SEX: Female	DAY ON TEST: 634
	DOSE: 280 PPM	DISP: Moribund Sacrifice	HISTO: 96-74932

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland		Fibroadenoma Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 9-22]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 11-1]			
* Spleen		Hematopoietic Cell Proliferation Leukemia Mononuclear	Mild
[Hematopoietic Cell Proliferation TGLS = 3-6]			
[Leukemia Mononuclear TGLS = 3-6]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 335

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77171

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus
Vagina			

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 3-21]		
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	[Basophilic Focus TGLS = 2-6]		
	[Eosinophilic Focus TGLS = 2-6]		
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Ectasia	Mild
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-1]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 335

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77171

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 336

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Brain		Compression	Moderate
[Compression TGLS = 7-1]			
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 4-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 8-5]			
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
		Necrosis	Focal, Minimal
[Leukemia Mononuclear TGLS = 5-6]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-21,3-22]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			
* Spleen		Leukemia Mononuclear	
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 337

TRT#: 4

SEX: Female

DAY ON TEST: 690

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-75542

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy	Fatty, Mild Focal, Mild
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy	Minimal Minimal
* Liver	Renal Tubule	Pigmentation Basophilic Focus Eosinophilic Focus	Minimal
	[Basophilic Focus TGLS = 2-22]		
	[Eosinophilic Focus TGLS = 2-22,3-23]		
* Lung		Inflammation	Chronic, Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-21]		
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 338

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76587

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Mixed Cell Focus	
		[Basophilic Focus TGLS = 6-6]	
		[Hepatodiaphragmatic Nodule TGLS = 5-23]	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 2-21,3-22]	
		[Hyperplasia TGLS = 1-8]	
* Ovary		Cyst	Marked
		[Cyst TGLS = 4-7]	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 339

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Moderate
* Brain		Compression	Moderate
[Compression TGLS = 6-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 4-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
Mesentery		Accessory Spleen	
[Accessory Spleen TGLS = 3-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 5-3]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 339

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76588

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Hyperplasia

Cystic, Mild

Polyp Stromal

[Polyp Stromal TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 340

TRT#: 4

SEX: Female

DAY ON TEST: 716

DOSE: 280 PPM

DISP: Moribund Sacrifice

HISTO: 96-76265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	Peripheral Nerve
* Pituitary Gland	* Salivary Glands	* Skin	Spinal Cord
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Thymus

OBSERVATIONS

* Brain		Granular Cell Tumor Malignant	
[Granular Cell Tumor Malignant TGLS = 1-1]			
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 3-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 2-21]			
* Mammary Gland		Hyperplasia	Minimal
* Pancreas		Atrophy	Minimal
* Spleen		Pigmentation	Marked

PRIMARY CAUSE OF DEATH

- Brain Granular Cell Tumor Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 341

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Esophagus

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Bone	Femur	Osteopetrosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 1-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
[Angiectasis TGLS = 2-1]			
* Skin	Epidermis	Hyperplasia	Mild
[Hyperplasia TGLS = 3-21]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 342

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76590

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Mild
[Adenoma TGLS = 4-8]			
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 1-21]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
[Angiectasis TGLS = 8-1]			
* Spleen		Leukemia Mononuclear	
		Pigmentation	Moderate
[Leukemia Mononuclear TGLS = 6-23]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 342

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76590

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland
[Cyst TGLS = 7-3]

Follicle

Cyst

Moderate

* Uterus
[Angiectasis TGLS = 9-7]

Angiectasis

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 343

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 344

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-76591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Moderate
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 2-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21,3-22]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
[Angiectasis TGLS = 6-1]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[Hematopoietic Cell Proliferation TGLS = 5-6]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 345

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 8-23]			
* Clitoral Gland	Bilateral	Adenoma	
[Adenoma TGLS = 2-8,9-8]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 5-6]			
* Lung	Alveolar Epith	Hyperplasia	Marked
		Infiltration Cellular	Histiocyte, Mild
[Hyperplasia TGLS = 7-2]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Mild
[Hemorrhage TGLS = 6-5]			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 3-21]			
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 4-22]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 345

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76592

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland
[Cyst TGLS = 10-1]

Pars Distalis

Cyst

Moderate

* Spleen

Hematopoietic Cell Proliferation
Pigmentation

Minimal
Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 346

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 347

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71439

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

* Liver

Infiltration Cellular

Mixed Cell, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 348

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 3-22]			
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Adenoma	
	C Cell	Hyperplasia	Mild
* Uterus		Polyp Stromal	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 348

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77172

ORGAN AND ACCOUNTABLE SITE STATUS

[Polyp Stromal TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 349

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 350

TRT#: 4

SEX: Female

DAY ON TEST: 187

DOSE: 280 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 351

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77173

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Hemorrhage	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Basophilic Focus	
		Leukemia Mononuclear	
		Mixed Cell Focus	
	[Mixed Cell Focus TGLS = 3-21,4-22,5-23,6-24]		
* Lung		Infiltration Cellular	Histiocyte, Marked
		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Marked
	[Hyperplasia TGLS = 1-8]		
* Ovary		Cyst	Moderate
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
	[Angiectasis TGLS = 7-1]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 351

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77173

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 352

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77174

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Carcinoma	
		Inflammation	Chronic, Mild
[Carcinoma TGLS = 3-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 7-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 4-22]			
[Leukemia Mononuclear TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 1-21]			
[Hyperplasia TGLS = 2-8]			
* Ovary		Cyst	Moderate
* Pancreas		Atrophy	Moderate
[Atrophy TGLS = 6-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 352

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77174

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Cyst

Moderate

* Spleen

Leukemia Mononuclear

* Thyroid Gland

Bilateral, C Cell

Adenoma

* Uterus

Hyperplasia

Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 353

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77175

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Clitoral Gland	Bilateral	Adenoma	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Minimal
Mesentery	Fat	Necrosis	Mild
	[Necrosis TGLS = 2-21]		
* Ovary		Cyst	Marked
	[Cyst TGLS = 1-7]		
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Focal, Mild
	[Angiectasis TGLS = 6-1]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6]		
* Thyroid Gland	C Cell	Carcinoma	
	[Carcinoma TGLS = 5-3]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 353

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77175

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 354

TRT#: 4

SEX: Female

DAY ON TEST: 605

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-74657

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Necrosis	Moderate
[Necrosis TGLS = 2-10]			
* Adrenal Medulla		Leukemia Mononuclear Compression	Moderate
* Brain		Leukemia Mononuclear	
[Compression TGLS = 5-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Leukemia Mononuclear Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 4-21]		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 354

TRT#: 4

SEX: Female

DAY ON TEST: 605

DOSE: 280 PPM

DISP: Natural Death

HISTO: 96-74657

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-6]

* Stomach, Glandular

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 355

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77176

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
		Necrosis	Focal, Minimal
[Leukemia Mononuclear TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 356

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77177

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Mammary Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 1-8,2-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 357

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77178

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy	Fatty, Moderate Focal, Moderate
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy	Moderate Minimal
	Renal Tubule	Pigmentation Basophilic Focus	Mild
* Liver			
[Basophilic Focus TGLS = 2-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma Hyperplasia	Marked
[Fibroadenoma TGLS = 1-21]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
[Angiectasis TGLS = 3-1]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 358	TRT#: 4	SEX: Female	DAY ON TEST: 732
	DOSE: 280 PPM	DISP: Terminal Sacrifice	HISTO: 96-77179

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

- * Parathyroid Gland

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: HDN IS ON SLIDE 21.			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Moderate
* Spleen		Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 359

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77180

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone	Femur	Osteopetrosis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		[Basophilic Focus TGLS = 5-23]	
		[Eosinophilic Focus TGLS = 5-23]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Mild
		[Fibroadenoma TGLS = 2-21,3-22]	
		[Hyperplasia TGLS = 1-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 7-1]	
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tongue	Epithelium	Hyperplasia	Moderate
		[Hyperplasia TGLS = 6-24]	
* Uterus		Hydrometra	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 359

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77180

ORGAN AND ACCOUNTABLE SITE STATUS

[Hydrometra TGLS = 4-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 360

TRT#: 4

DOSE: 280 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Bone	Femur	Osteopetrosis	Mild
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		[Basophilic Focus TGLS = 3-6]	
		[Eosinophilic Focus TGLS = 4-22]	
		[Hepatodiaphragmatic Nodule TGLS = 5-23]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 2-21]	
		[Hyperplasia TGLS = 1-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 6-1]	
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 360

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 280 PPM

DISP: Terminal Sacrifice

HISTO: 96-77181

ORGAN AND ACCOUNTABLE SITE STATUS

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 361

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Mild
	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
Note: SUBCAPSULAR CYST IN LEFT KIDNEY; NOT TABULATED.			
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
	[Fibroadenoma TGLS = 2-21]		
	[Hyperplasia TGLS = 1-8]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 362

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 665

HISTO: 96-75024

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Uterus	Vagina

MISSING

* Thymus

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 6-10]			
* Brain		Compression	Moderate
[Compression TGLS = 11-1]			
* Clitoral Gland		Adenoma	
		Carcinoma	
[Adenoma TGLS = 3-8-1]			
[Carcinoma TGLS = 3-8-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Hydronephrosis	Moderate
	Papilla	Necrosis	Marked
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
[Hydronephrosis TGLS = 7-5]			
[Pigmentation TGLS = 8-5]			
* Liver		Eosinophilic Focus	
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 2-21]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 362

TRT#: 6

SEX: Female

DAY ON TEST: 665

DOSE: 830 PPM

DISP: Natural Death

HISTO: 96-75024

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-8-1]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 12-1]			
* Spleen		Hematopoietic Cell Proliferation	Marked
		Pigmentation	Moderate
* Stomach, Forestomach		Erosion	Mild
* Urinary Bladder		Hemorrhage	Moderate
		Necrosis	Marked
[Hemorrhage TGLS = 5-8]			

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Benign

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 363

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77183

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 2-8-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 5-23]		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 4-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 7-24]		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-21]			
* Pancreas		Atrophy	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 3-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 364

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Basophilic Focus TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
		Pigmentation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 364

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77184

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 365

TRT#: 6

SEX: Female

DAY ON TEST: 677

DOSE: 830 PPM

DISP: Natural Death

HISTO: 96-75132

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|------------------|------------------------|--------------------------|-------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Brain |
| * Clitoral Gland | * Esophagus | * Lymph Node, Mandibular | * Nose |
| * Ovary | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

AUTO PRECLUDES DIAG.

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney |
| * Lymph Node, Mesenteric | * Pancreas | | |

OBSERVATIONS

- | | | |
|-------------------------------------|-----------------------|---------------------|
| * Bone Marrow | Leukemia Mononuclear | |
| * Heart | Cardiomyopathy | Minimal |
| * Liver | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLS = 2-6] | | |
| * Lung | Infiltration Cellular | Histiocyte, Minimal |
| * Mammary Gland | Hyperplasia | Moderate |
| * Spleen | Hemorrhage | Moderate |
| | Leukemia Mononuclear | |
| [Hemorrhage TGLS = 3-21] | | |
| [Leukemia Mononuclear TGLS = 1-6] | | |

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 366

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
		Hyperplasia	Mild
* Mammary Gland [Hyperplasia TGLS = 2-8]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
* Skin	Epidermis	Hyperplasia	Mild
		Inflammation	Chronic, Minimal
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 367

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77186

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Transit Epithe	Hyperplasia	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
[Eosinophilic Focus TGLS = 2-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 368

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77187

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland		Cyst	Moderate
		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 368

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77187

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 5-1]

* Spleen

Hematopoietic Cell Proliferation
Pigmentation

Minimal
Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 369

TRT#: 6

SEX: Female

DAY ON TEST: 232

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 95-72067

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Intestine Large, Cecum		Hemorrhage	Moderate
		Inflammation	Acute, Moderate

Note: ACUTE INFLAMMATION ALSO PRESENT ON SLIDE 4.

[Hemorrhage TGLS = 9-23]

[Inflammation TGLS = 9-23]

* Kidney		Glomerulosclerosis	Moderate
	Renal Tubule	Hyaline Droplet	Mild
		Infarct	Moderate
	Renal Tubule	Pigmentation	Mild

[Pigmentation TGLS = 6-5]

* Liver		Hematopoietic Cell Proliferation	Marked
	Bile Duct	Hyperplasia	Minimal

Note: EXTENSIVE DIFFUSE NODULAR HYPERPLASIA; NOT TABULATED.

[Hematopoietic Cell Proliferation TGLS = 7-6]

* Lung		Hemorrhage	Marked
--------	--	------------	--------

Note: EXTENSIVE ERYTHROPHAGOCYTOSIS; NOT TABULATED.

[Hemorrhage TGLS = 10-2]

Lymph Node	Pancreatic	Hematopoietic Cell Proliferation	Moderate
	Mediastinal	Hemorrhage	Moderate
	Pancreatic	Hemorrhage	Moderate
	Mediastinal	Hyperplasia	Lymphoid, Moderate

[Hematopoietic Cell Proliferation TGLS = 11-25]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 369

TRT#: 6

SEX: Female

DAY ON TEST: 232

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 95-72067

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLS = 11-25]

[Hemorrhage TGLS = 12-24]

[Hyperplasia TGLS = 12-24]

* Lymph Node, Mandibular

Hemorrhage

Mild

Hyperplasia

Lymphoid, Moderate

* Lymph Node, Mesenteric

Hemorrhage

Moderate

[Hemorrhage TGLS = 8-5]

* Ovary

Cyst

Moderate

[Cyst TGLS = 4-7]

* Pituitary Gland

Pars Distalis

Cyst

Moderate

* Skin

Subcut Tiss

Sarcoma

[Sarcoma TGLS = 1-21,1-22]

* Spleen

Hematopoietic Cell Proliferation

Marked

[Hematopoietic Cell Proliferation TGLS = 5-6]

* Stomach, Forestomach

Edema

Mild

* Stomach, Glandular

Edema

Mild

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Sarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 370

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 371

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Minimal
* Clitoral Gland		Inflammation	Chronic, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
[Pigmentation TGLS = 2-5]		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
* Uterus		Hydrometra	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 372

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Colon

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 8-24]		
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
	[Cataract TGLS = 1-21]		
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 6-5]		
* Liver		Basophilic Focus	
	[Basophilic Focus TGLS = 7-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
	[Hyperplasia TGLS = 4-8]		
* Ovary		Cyst	Moderate
	[Cyst TGLS = 5-7]		
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:11
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 372	TRT#: 6	SEX: Female	DAY ON TEST: 731
	DOSE: 830 PPM	DISP: Terminal Sacrifice	HISTO: 96-76594

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 9-1]			
* Skin	Epidermis	Hyperplasia Ulcer	Mild Mild
[Hyperplasia TGLS = 2-22,3-23]			
[Ulcer TGLS = 2-22]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 373

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76595

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Infarct	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Infiltration Cellular	Mixed Cell, Moderate
[Hepatodiaphragmatic Nodule TGLS = 2-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
[Angiectasis TGLS = 4-1]			
* Spleen		Pigmentation	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
[Carcinoma TGLS = 3-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 374

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76596

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone	Femur	Osteopetrosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
* Liver		Pigmentation	Moderate
		Clear Cell Focus	
		Infiltration Cellular	Mixed Cell, Minimal
[Clear Cell Focus TGLS = 2-6]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 375

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76597

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hyperplasia	Focal, Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
	[Pigmentation TGLS = 2-5]		
* Liver		Angiectasis	Mild
		Basophilic Focus	
	Kupffer Cell	Pigmentation	Mild
	[Basophilic Focus TGLS = 4-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Mild
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	[Cyst TGLS = 5-1]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Hyperplasia	Cystic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 375

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76597

ORGAN AND ACCOUNTABLE SITE STATUS

Polyp Stromal

[Polyp Stromal TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 376

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77188

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
[Basophilic Focus TGLS = 5-6]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-21]			
* Ovary		Cyst	Marked
[Cyst TGLS = 3-7]			
* Skin	Epidermis	Hyperplasia	Mild
		Ulcer	Moderate
[Hyperplasia TGLS = 1-22]			
[Ulcer TGLS = 1-22]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 377

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77189

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Leukemia Mononuclear	Fatty, Mild Focal, Mild
* Clitoral Gland		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy	Moderate Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus Leukemia Mononuclear Necrosis	Focal, Minimal
		[Leukemia Mononuclear TGLS = 3-6]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma Hyperplasia	Marked
		[Fibroadenoma TGLS = 1-21]	
		[Hyperplasia TGLS = 2-8]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 4-1]	
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 378

TRT#: 6

SEX: Female

DAY ON TEST: 617

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74793

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 4-22]		
	[Osteopetrosis TGLS = 3-9]		
* Bone Marrow		Infiltration Cellular	Histiocyte, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
		Basophilic Focus	
* Liver		Infiltration Cellular	Histiocyte, Minimal
* Lung		Fibroadenoma	
* Mammary Gland		Hyperplasia	Mild
	[Fibroadenoma TGLS = 1-21]		
* Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
Vagina		Granular Cell Tumor Benign	
	[Granular Cell Tumor Benign TGLS = 2-7]		

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 379

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77190

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Clitoral Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	Subcut Tiss	Lipoma	
[Lipoma TGLS = 2-21]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 380

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 381

TRT#: 6

SEX: Female

DAY ON TEST: 539

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 7-21]			
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-1]			
* Intestine Small, Ileum		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-22]			
[Leukemia Mononuclear TGLS = 3-7]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 381

TRT#: 6

SEX: Female

DAY ON TEST: 539

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74435

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-6]	Leukemia Mononuclear
* Stomach, Forestomach [Perforation TGLS = 5-4]	Leukemia Mononuclear Perforation
* Stomach, Glandular	Leukemia Mononuclear
* Thymus	Leukemia Mononuclear

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 382

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76598

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2-8]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
[Basophilic Focus TGLS = 3-6]			
[Eosinophilic Focus TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Pigmentation	Mild
* Uterus		Hydrometra	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 383

TRT#: 6

SEX: Female

DAY ON TEST: 725

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hyperplasia	Focal, Mild
		Hypertrophy	Focal, Moderate
Eye		Cataract	Mild
	Retina	Degeneration	Marked
		Hemorrhage	Moderate
[Hemorrhage TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus	
		Hemorrhage	Marked
		Hepatodiaphragmatic Nodule	
Note: BASOPH FOCUS ON SLIDES 6 AND 25.			
[Hemorrhage TGLS = 7-6]			
[Hepatodiaphragmatic Nodule TGLS = 8-25]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Moderate
[Hemorrhage TGLS = 9-5]			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 383

TRT#: 6

SEX: Female

DAY ON TEST: 725

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76503

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLS = 4-23]

[Hyperplasia TGLS = 2-8,3-22]

Mesentery

Fat

Necrosis

Moderate

[Necrosis TGLS = 5-24]

* Pancreas

Atrophy

Mild

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 11-1]

* Spleen

Hematopoietic Cell Proliferation

Moderate

Pigmentation

Mild

* Thyroid Gland

C Cell

Hyperplasia

Minimal

* Uterus

Hydrometra

Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:11

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 384

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76599

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Pheochromocytoma Benign	Fatty, Mild Focal, Mild
* Adrenal Medulla		Inflammation	Chronic, Mild
* Clitoral Gland		Hyaline Droplet	Moderate
* Kidney	Renal Tubule	Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus Clear Cell Focus Eosinophilic Focus Hepatodiaphragmatic Nodule	
		[Basophilic Focus TGLS = 4-6]	
		[Clear Cell Focus TGLS = 4-6]	
		[Eosinophilic Focus TGLS = 4-6]	
		[Hepatodiaphragmatic Nodule TGLS = 2-21]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Minimal
		[Hyperplasia TGLS = 1-8]	
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
	Pars Distalis	Cyst	Moderate
		[Angiectasis TGLS = 3-1]	
		[Cyst TGLS = 3-1]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 384

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76599

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Moderate

* Thyroid Gland

Ultimobranchial Cyst

Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 385

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Clitoral Gland		Cyst	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Eosinophilic Focus	
	Kupffer Cell	Pigmentation	Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
		[Fibroadenoma TGLS = 1-21]	
		[Hyperplasia TGLS = 2-8]	
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Thymoma Benign	
* Uterus		Hydrometra	Mild
		[Hydrometra TGLS = 3-7]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 386

TRT#: 6

SEX: Female

DAY ON TEST: 648

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74938

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	Peripheral Nerve
* Salivary Glands	* Skin	Spinal Cord	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Mixed Cell Focus	
[Basophilic Focus TGLS = 8-6]			
[Mixed Cell Focus TGLS = 2-22,3-23]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 1-21]			
[Hyperplasia TGLS = 6-8]			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 387

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77191

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		[Basophilic Focus TGLS = 3-6]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
		[Hyperplasia TGLS = 1-8]	
* Nose	Goblet Cell	Hyperplasia	Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 4-1]	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
		[Polyp Stromal TGLS = 2-7]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 388

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 389

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71445

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 390

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 391

TRT#: 6

SEX: Female

DAY ON TEST: 592

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-74632

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone [Osteopetrosis TGLS = 5-22]	Cranium	Osteopetrosis	Mild
* Clitoral Gland		Inflammation	Chronic, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
* Liver [Leukemia Mononuclear TGLS = 4-6]		Pigmentation	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland [Fibroadenoma TGLS = 1-21]		Fibroadenoma	
* Pancreas		Atrophy	Minimal
* Spleen [Leukemia Mononuclear TGLS = 3-6]		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear
 CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 392

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71447

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 393

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77192

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Infiltration Cellular	Histiocyte, Mild
* Clitoral Gland		Adenoma	
		Hyperplasia	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
	[Mixed Cell Focus TGLS = 4-22]		
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
	[Fibroadenoma TGLS = 1-21]		
* Nose		Inflammation	Chronic, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
	[Angiectasis TGLS = 5-1]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Inflammation	Chronic, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 393

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77192

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL 3-7 IS ABSCESS; CODED AS "CHRONIC INFLAMMATION".

[Inflammation TGLS = 3-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 394

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77193

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Moderate
* Brain		Compression	Moderate
		Hydrocephalus	Minimal
[Compression TGLS = 4-1]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
		Necrosis	Focal, Minimal
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 3-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 394

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 96-77193

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear

Pigmentation

Marked

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 395

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
[Pigmentation TGLS = 1-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
* Ovary		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-1]			
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 396

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76601

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Bone Marrow		Infiltration Cellular	Histiocyte, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
		Leukemia Mononuclear	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Spleen		Hyperplasia	Histiocytic, Marked
		Leukemia Mononuclear	
[Hyperplasia TGLS = 6-6]			
[Leukemia Mononuclear TGLS = 3-6]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 397

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adren Medulla			
Note: FEW SMALL NESTS OF LYMPHOCYTES; NOT CODED.			
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Skin	Subcut Tiss	Fibroma	
[Fibroma TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Leiomyoma	
		Polyp Stromal	
[Leiomyoma TGLS = 3-7]			
[Polyp Stromal TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 398

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76602

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 4-22]		
* Bone Marrow		Hyperplasia	Moderate
* Brain		Compression	Moderate
	[Compression TGLS = 6-1]		
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Mild
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Hemorrhage	Marked
	Mediastinal	Pigmentation	Moderate
	[Hemorrhage TGLS = 7-3]		
	[Pigmentation TGLS = 7-3]		
* Lymph Node, Mandibular		Ectasia	Mild
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 398	TRT#: 6	SEX: Female	DAY ON TEST: 731
	DOSE: 830 PPM	DISP: Terminal Sacrifice	HISTO: 96-76602

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Chronic, Moderate
* Pancreas		Atrophy	Minimal
		Hemangiosarcoma	Metastatic (Spleen)
[Hemangiosarcoma TGLS = 3-7]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
[Hemangiosarcoma TGLS = 2-21]			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 399

TRT#: 6

SEX: Female

DAY ON TEST: 665

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Brain		Compression	Moderate
		Hydrocephalus	Mild
[Compression TGLS = 6-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Mixed Cell Focus	
	Kupffer Cell	Pigmentation	Mild
[Basophilic Focus TGLS = 4-6]			
[Mixed Cell Focus TGLS = 4-6]			
* Lymph Node, Mandibular		Hemorrhage	Mild
		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Ovary		Cyst	Marked
[Cyst TGLS = 2-7]			
* Pancreas		Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 399

TRT#: 6

SEX: Female

DAY ON TEST: 665

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75025

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland
[Adenoma TGLS = 5-1]

Pars Distalis

Adenoma

* Spleen

Pigmentation

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 400

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76603

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
		Hypertrophy	Focal, Mild
* Brain		Compression	Moderate
[Compression TGLS = 4-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 3-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Nose		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
Vagina		Squamous Cell Papilloma	
[Squamous Cell Papilloma TGLS = 2-21]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 401

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 402

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 702

HISTO: 96-75675

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Brain	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Hypertrophy Leukemia Mononuclear	Focal, Minimal
[Leukemia Mononuclear TGLS = 7-10]			
* Bone	Femur	Osteopetrosis Leukemia Mononuclear	Mild
* Bone Marrow		Cyst	Moderate
* Clitoral Gland			
[Cyst TGLS = 3-8]			
* Intestine Large, Cecum		Edema	Moderate
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy Pigmentation	Mild Minimal Moderate
[Pigmentation TGLS = 8-5]			
* Liver		Basophilic Focus Eosinophilic Focus	
	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
[Leukemia Mononuclear TGLS = 9-6]			
[Vacuolization Cytoplasmic TGLS = 9-6]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mandibular		Ectasia Leukemia Mononuclear	Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 402

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 702

HISTO: 96-75675

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Hyperplasia TGLS = 1-8]		Hyperplasia	Moderate
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Leukemia Mononuclear	
		Hematopoietic Cell Proliferation	Moderate
		Leukemia Mononuclear	
[Hematopoietic Cell Proliferation TGLS = 5-6]			
[Leukemia Mononuclear TGLS = 5-6]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 403

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77195

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Colon

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Compression	Fatty, Minimal Focal, Minimal Moderate
* Brain [Compression TGLS = 6-1]			
* Clitoral Gland [Adenoma TGLS = 2-22]		Adenoma	
* Kidney [Pigmentation TGLS = 3-5]	Renal Tubule	Hyaline Droplet Nephropathy Pigmentation	Moderate Minimal Mild
* Liver [Basophilic Focus TGLS = 4-6] [Eosinophilic Focus TGLS = 4-6]		Basophilic Focus Eosinophilic Focus	
* Lung		Infiltration Cellular Pigmentation	Histiocyte, Minimal Mild
* Lymph Node, Mandibular		Hyperplasia	Marked
* Mammary Gland [Hyperplasia TGLS = 1-21]			
* Pancreas		Atrophy	Mild
* Pituitary Gland [Adenoma TGLS = 5-1]	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 403

TRT#: 6
DOSE: 830 PPM

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 732
HISTO: 96-77195

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Moderate
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PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 404

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-77196

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Chronic, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Minimal
		Hyperplasia	Lymphoid, Moderate
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 405

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77197

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Bone	Femur	Osteopetrosis	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 3-5]	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	[Clear Cell Focus TGLS = 4-22]		
	[Eosinophilic Focus TGLS = 5-23]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 1-21]		
	[Hyperplasia TGLS = 2-8]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 7-1]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 406

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Bone Marrow		Infiltration Cellular	Histiocyte, Minimal
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 3-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
[Cyst TGLS = 7-1]			
* Skin	Epidermis	Hyperplasia	Mild
		Ulcer	Mild
[Hyperplasia TGLS = 1-21]			
[Ulcer TGLS = 1-21]			
* Spleen		Pigmentation	Mild
* Uterus		Hydrometra	Moderate
[Hydrometra TGLS = 4-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 407

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71449

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Minimal

Renal Tubule

Pigmentation

Minimal

* Liver

Basophilic Focus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 408

TRT#: 6

SEX: Female

DAY ON TEST: 725

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	Spinal Cord	* Stomach, Forestomach
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Degeneration Hyperplasia Hypertrophy	Fatty, Moderate Focal, Mild Focal, Mild
* Heart		Cardiomyopathy	Moderate
* Intestine Small, Duodenum [Hyperplasia TGLS = 4-4]	Epithelium	Hyperplasia	Moderate
* Islets, Pancreatic [Carcinoma TGLS = 3-21]		Carcinoma	
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy	Mild Minimal
	Renal Tubule	Pigmentation	Mild
* Liver Note: DIFFUSE HEPATOCELLULAR GLYCOGEN DEPLETION; NOT CODED.		Basophilic Focus	
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Ovary [Cyst TGLS = 1-7]		Cyst	Marked
Peripheral Nerve		Atrophy	Mild
* Salivary Glands		Atrophy	Minimal
Skeletal Muscle		Atrophy	Mild
* Spleen		Pigmentation	Marked
* Stomach, Glandular		Erosion	Mild
* Uterus		Hyperplasia	Cystic, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 408

TRT#: 6

SEX: Female

DAY ON TEST: 725

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-76504

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Islets, Pancreatic Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 409

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 674

HISTO: 96-75133

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Brain		Compression	Moderate
		Hydrocephalus	Mild
[Compression TGLS = 6-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	Hepatocyte	Vacuolization Cytoplasmic	Mild
[Basophilic Focus TGLS = 3-6]			
[Hepatodiaphragmatic Nodule TGLS = 4-21]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Nose		Inflammation	Chronic, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 409

TRT#: 6

SEX: Female

DAY ON TEST: 674

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75133

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear
Pigmentation

Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 410

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76605

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Brain		Compression	Moderate
		Glioma Malignant	
[Compression TGLS = 5-1]			
[Glioma Malignant TGLS = 6-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Lymph Node, Mandibular		Ectasia	Mild
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-6]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 411

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 527

HISTO: 96-74184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Liver		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Leukemia Mononuclear	
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 412

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76606

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Salivary Glands
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Clitoral Gland		Inflammation	Chronic, Mild
Eye		Cataract	Moderate
	Retina	Degeneration	Mild
		Hemorrhage	Moderate
		Inflammation	Chronic, Mild
[Cataract TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 5-6]			
[Mixed Cell Focus TGLS = 5-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 4-23]			
[Hyperplasia TGLS = 3-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 412	TRT#: 6	SEX: Female	DAY ON TEST: 731
	DOSE: 830 PPM	DISP: Terminal Sacrifice	HISTO: 96-76606

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin		Hyperkeratosis	Mild
	Epidermis	Hyperplasia	Moderate
		Ulcer	Minimal
	[Hyperkeratosis TGLS = 2-22]		
	[Hyperplasia TGLS = 2-22]		
	[Ulcer TGLS = 2-22]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 413

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76607

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Bone	Femur	Osteopetrosis	Moderate
* Clitoral Gland		Cyst	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Leukemia Mononuclear	
		Necrosis	Focal, Minimal
[Leukemia Mononuclear TGLS = 3-6]			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 413

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76607

ORGAN AND ACCOUNTABLE SITE STATUS

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 414

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76608

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 415

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 96-76609

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Minimal
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Leukemia Mononuclear	
[Basophilic Focus TGLS = 4-6]			
[Eosinophilic Focus TGLS = 4-6]			
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			
* Spleen		Leukemia Mononuclear	
		Pigmentation	Moderate
* Thyroid Gland	Follicle	Cyst	Moderate
[Cyst TGLS = 5-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 416

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 417

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76610

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Clitoral Gland		Adenoma	
		Hyperplasia	Moderate
[Adenoma TGLS = 3-8]			
* Heart		Cardiomyopathy	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
		Inflammation	Chronic, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 4-1]			
[Cyst TGLS = 4-1]			
* Spleen		Pigmentation	Moderate
* Thyroid Gland	Follicle	Cyst	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 417

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76610

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 418

TRT#: 6

SEX: Female

DAY ON TEST: 187

DOSE: 830 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71451

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 419

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76611

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
		Mixed Cell Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 419

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 830 PPM

DISP: Terminal Sacrifice

HISTO: 96-76611

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 420

TRT#: 6

DOSE: 830 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 674

HISTO: 96-75134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Pituitary Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia Leukemia Mononuclear	Focal, Mild
[Leukemia Mononuclear TGLS = 4-10]			
* Adrenal Medulla		Leukemia Mononuclear	
* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 9-22]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet Leukemia Mononuclear	Marked
	Renal Tubule	Pigmentation	Moderate
[Leukemia Mononuclear TGLS = 5-5]			
[Pigmentation TGLS = 5-5]			
* Liver	Bile Duct	Hepatodiaphragmatic Nodule Hyperplasia Leukemia Mononuclear	Mild
[Hepatodiaphragmatic Nodule TGLS = 7-21]			
[Leukemia Mononuclear TGLS = 6-6]			
Lymph Node	Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-3]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 420

TRT#: 6

SEX: Female

DAY ON TEST: 674

DOSE: 830 PPM

DISP: Moribund Sacrifice

HISTO: 96-75134

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland

[Hyperplasia TGLS = 1-8]

Hyperplasia

Marked

* Spleen

[Leukemia Mononuclear TGLS = 3-6]

Leukemia Mononuclear

* Uterus

[Polyp Stromal TGLS = 2-7]

Polyp Stromal

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 421

TRT#: 8

DOSE: 2500 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77198

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 1-8,2-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Marked
* Thyroid Gland	Follicle	Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 422

TRT#: 8

SEX: Female

DAY ON TEST: 529

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Clitoral Gland		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-22]			
* Pituitary Gland	Pars Intermed	Adenoma	
* Skin	Epidermis	Hyperplasia	Moderate
		Ulcer	Moderate
[Hyperplasia TGLS = 1-21]			
[Ulcer TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 423

TRT#: 8

SEX: Female

DAY ON TEST: 610

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74791

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Brain		Compression	Moderate
		Hydrocephalus	Mild
[Compression TGLS = 6-1]			
Eye		Inflammation	Chronic, Moderate
[Inflammation TGLS = 1-21]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Hyperplasia	Oncocytic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 4-5]			
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 3-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 423	TRT#: 8	SEX: Female	DAY ON TEST: 610
	DOSE: 2500 PPM	DISP: Moribund Sacrifice	HISTO: 96-74791

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 7-1]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 424

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 425

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 426

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76612

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Clitoral Gland		Adenoma	
[Adenoma TGLS = 6-8]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Inflammation	Chronic, Mild
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
[Basophilic Focus TGLS = 5-6]			
[Clear Cell Focus TGLS = 4-22]			
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 426

TRT#: 8
DOSE: 2500 PPM

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 731
HISTO: 96-76612

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland
* Uterus

C Cell

Pigmentation
Hyperplasia
Inflammation

Marked
Minimal
Chronic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 427

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76613

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-21]			
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 2-22]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 428

TRT#: 8

SEX: Female

DAY ON TEST: 665

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Vagina

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Marked
		[Leukemia Mononuclear TGLS = 8-5]	
		[Pigmentation TGLS = 8-5]	
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	Kupffer Cell	Pigmentation	Moderate
	Hepatocyte	Vacuolization Cytoplasmic	Marked
* Lung		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 16-2]	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Iliac	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 15-25]	
		[Leukemia Mononuclear TGLS = 10-24]	
		[Leukemia Mononuclear TGLS = 3-22]	
		[Leukemia Mononuclear TGLS = 2-21]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 428

TRT#: 8

SEX: Female

DAY ON TEST: 665

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75026

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 12-8]		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland [Hyperplasia TGLS = 1-8]		Hyperplasia	Moderate
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
		Leukemia Mononuclear	
Note: MODERATE NUMBER PIGMENT-FILLED MACROPHAGES BETWEEN PARS DISTALIS AND PARS INTERMEDIA; NOT CODED.			
		[Cyst TGLS = 13-1]	
		[Leukemia Mononuclear TGLS = 13-1]	
* Spleen		Developmental Malformation	
		Leukemia Mononuclear	
		[Developmental Malformation TGLS = 6-23]	
		[Leukemia Mononuclear TGLS = 5-6]	
* Thymus		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 14-3]	
* Uterus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 429

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76614

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|------------------------------------|--------------|----------------------------------|-----------------|
| * Adrenal Cortex | | Hyperplasia | Focal, Minimal |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | Renal Tubule | Hyperplasia | Oncocytic, Mild |
| | Renal Tubule | Nephropathy | Minimal |
| | | Pigmentation | Moderate |
| [Pigmentation TGLS = 2-5] | | | |
| * Liver | | Basophilic Focus | |
| | | Eosinophilic Focus | |
| [Eosinophilic Focus TGLS = 3-21] | | | |
| * Lymph Node, Mandibular | | Pigmentation | Mild |
| * Mammary Gland | | Hyperplasia | Mild |
| [Hyperplasia TGLS = 1-8] | | | |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Moderate |
| * Thyroid Gland | C Cell | Carcinoma | |
| [Carcinoma TGLS = 4-3] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 430

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76615

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	Vagina

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 3-5]	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Hemorrhage	Minimal
	Alveolar Epith	Hyperplasia	Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-21]	Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 431

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
Note: SUBCAPSULAR FOCUS OF MINIMAL TUBULAR HYPERPLASIA IN LEFT KIDNEY; NOT TABULATED.			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		[Basophilic Focus TGLS = 3-6]	
		[Eosinophilic Focus TGLS = 3-6]	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
		[Fibroadenoma TGLS = 2-21]	
		[Hyperplasia TGLS = 1-8]	
* Nose		Inflammation	Chronic, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 4-1]	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 432

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71454

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 433

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77200

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 3-5]	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 4-23]		
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Mild
Mesentery		Accessory Spleen	
	Fat	Necrosis	Mild
	[Accessory Spleen TGLS = 2-22]		
	[Necrosis TGLS = 1-21]		
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 434

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77201

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Carcinoma	
		Fibroadenoma	
		Hyperplasia	Marked
[Carcinoma TGLS = 1-21]			
[Fibroadenoma TGLS = 7-22]			
[Hyperplasia TGLS = 2-8]			
* Ovary		Cyst	Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-1]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 435

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 5-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lymph Node, Mandibular		Ectasia	Moderate
		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-21]			
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Mild
[Cyst TGLS = 6-1]			
[Hyperplasia TGLS = 6-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 435

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77202

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

[Hydrometra TGLS = 4-7]

[Polyp Stromal TGLS = 3-7]

Pigmentation

Hydrometra

Polyp Stromal

Mild

Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 436

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77203

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Mild
		Cyst	Moderate
* Clitoral Gland			
[Cyst TGLS = 1-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Transit Epithe	Hyperplasia	Mild
		Infarct	Moderate
		Inflammation	Chronic, Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Infarct TGLS = 4-5]			
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Minimal
* Nose		Foreign Body	
		Inflammation	Chronic, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 436

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77203

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Pigmentation

Mild

Inflammation

Chronic, Marked

Note: TGL 2-21 IS AN ABSCESS; CODED AS CHRONIC INFLAMMATION.

[Inflammation TGLS = 2-21]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 437

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77204

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 5-21]		
* Clitoral Gland		Adenoma	
		Inflammation	Chronic, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 3-5]	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	[Adenoma TGLS = 4-1]		
	[Angiectasis TGLS = 4-1]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 437

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77204

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Polyp Stromal

[Polyp Stromal TGLS = 1-7,2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 438

TRT#: 8

SEX: Female

DAY ON TEST: 690

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Mild
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 8-23]		
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
	[Pigmentation TGLS = 4-5]		
* Liver		Basophilic Focus	
		Mixed Cell Focus	
	[Basophilic Focus TGLS = 7-6]		
	[Mixed Cell Focus TGLS = 7-6]		
* Lymph Node, Mandibular		Ectasia	Mild
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
Peritoneum		Mesothelioma Malignant	
	[Mesothelioma Malignant TGLS = 3-21,5-7,6-22,9-24]		
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH - Peritoneum Mesothelioma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 439

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Clitoral Gland		Inflammation	Chronic, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 4-6]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 5-8]			
Mesentery	Fat	Necrosis	Moderate
[Necrosis TGLS = 1-21]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
Note: TUMOR HAS SOME FEATURES OF PARS INTERMEDIA ADENOMA.			
* Spleen		Pigmentation	Moderate
* Uterus		Hydrometra	Mild
		Hyperplasia	Cystic, Minimal
[Hydrometra TGLS = 2-7]			
[Hyperplasia TGLS = 2-7]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 439

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77205

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 440

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77206

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Brain		Compression	Moderate
		Hydrocephalus	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 2-5]		
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	[Eosinophilic Focus TGLS = 3-21]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-1]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 441

TRT#: 8

SEX: Female

DAY ON TEST: 592

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74633

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Atrophy Carcinoma	Marked
[Atrophy TGLS = 5-10]			
[Carcinoma TGLS = 6-22]			
* Bone Marrow		Hyperplasia	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Infarct	Moderate
	Renal Tubule	Pigmentation	Marked
Note: TGL 4-21 IS CAPSULAR FIBROSIS AND INFLAMMATION ATTRIBUTED TO ADJACENT ADRENAL CARCINOMA; NOT TABULATED.			
		[Pigmentation TGLS = 3-5]	
* Liver		Basophilic Focus Hematopoietic Cell Proliferation	Mild
[Basophilic Focus TGLS = 7-6]			
* Lung		Carcinoma	Metastatic (Adrenal Cortex)
[Carcinoma TGLS = 10-2]			
Lymph Node	Mediastinal	Hemorrhage	Moderate
	Mediastinal	Hyperplasia	Lymphoid, Moderate
[Hemorrhage TGLS = 9-23]			
[Hyperplasia TGLS = 9-23]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Uterus		Polyp Stromal	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 441

TRT#: 8

SEX: Female

DAY ON TEST: 592

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74633

ORGAN AND ACCOUNTABLE SITE STATUS

[Polyp Stromal TGLS = 1-7]

PRIMARY CAUSE OF DEATH

- Adrenal Cortex Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 442

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77207

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Brain		Compression Hydrocephalus	Moderate Mild
[Compression TGLS = 5-1]			
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-21]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Marked
	Renal Tubule	Nephropathy	Minimal
[Pigmentation TGLS = 3-5]		Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Marked
* Ovary		Cyst	Marked
[Cyst TGLS = 2-7]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 442

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77207

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 443

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77208

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Mild
	[Osteopetrosis TGLS = 5-9]		
	[Osteopetrosis TGLS = 6-22]		
* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 3-5]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 4-21]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Nose		Inflammation	Chronic, Mild
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 443

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77208

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 7-1]

* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

* Thyroid Gland

C Cell

Adenoma

* Uterus

Polyp Stromal

[Polyp Stromal TGLS = 2-7-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 444

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Parathyroid Gland

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 2-5]		
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	[Basophilic Focus TGLS = 3-6]		
	[Eosinophilic Focus TGLS = 3-6]		
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Marked
	[Hyperplasia TGLS = 1-8]		
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	Follicular Cel	Adenoma	
	[Adenoma TGLS = 4-3]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 444

TRT#: 8

DOSE: 2500 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 96-77209

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 445

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 446

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77210

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--------------------------|-----------------------------|----------------------------------|---------------|
| * Adrenal Cortex | | Degeneration | Fatty, Mild |
| | | Hypertrophy | Focal, Mild |
| * Kidney | Renal Tubule | Hyaline Droplet | Moderate |
| | | Nephropathy | Minimal |
| | Renal Tubule | Pigmentation | Moderate |
| | [Pigmentation TGLS = 4-5] | | |
| * Liver | | Basophilic Focus | |
| | | Clear Cell Focus | |
| * Lymph Node, Mandibular | | Pigmentation | Mild |
| * Mammary Gland | | Carcinoma | |
| | | Hyperplasia | Moderate |
| | [Carcinoma TGLS = 2-21] | | |
| | [Hyperplasia TGLS = 1-8] | | |
| * Nose | | Inflammation | Chronic, Mild |
| * Ovary | | Cyst | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLS = 3-1] | | |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |
| * Thymus | | Cyst | |
| * Uterus | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 447

TRT#: 8

SEX: Female

DAY ON TEST: 360

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 95-73415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
Zymbal's Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 448

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
		Hyperplasia	Focal, Mild
* Bone	Cranium	Osteopetrosis	Moderate
[Osteopetrosis TGLS = 5-22]			
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
Mesentery		Accessory Spleen	
[Accessory Spleen TGLS = 3-21]			
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-7]			
* Spleen		Pigmentation	Moderate
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 449

TRT#: 8

SEX: Female

DAY ON TEST: 590

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74634

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
[Pigmentation TGLS = 2-5]		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Infiltration Cellular	Mixed Cell, Mild
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 3-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Hyperplasia	Cystic, Mild
Zymbal's Gland		Carcinoma	
[Carcinoma TGLS = 1-21]			

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 450

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 451

TRT#: 8

SEX: Female

DAY ON TEST: 689

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone	Femur	Osteopetrosis	Mild
* Bone Marrow		Infiltration Cellular	Histiocyte, Mild
* Brain		Compression	Moderate
		Hydrocephalus	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
		Pigmentation	Moderate
* Mammary Gland		Hyperplasia	Marked
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 451

TRT#: 8
DOSE: 2500 PPM

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 689
HISTO: 96-75544

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 452

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77212

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Complex	
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Inflammation	Chronic, Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis	Moderate
		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
Note: CLEAR CL FOCI ARE ON SLIDES 6 AND 21.			
[Angiectasis TGLS = 4-21]			
[Basophilic Focus TGLS = 4-21]			
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Uterus		Hydrometra	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 452

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77212

ORGAN AND ACCOUNTABLE SITE STATUS

[Hydrometra TGLS = 2-7]

Hyperplasia

Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 453

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77213

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

Zymbal's Gland

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Bone	Cranium Femur	Osteopetrosis Osteopetrosis	Moderate Mild
	[Osteopetrosis TGLS = 4-22]		
* Kidney	Renal Tubule Renal Tubule	Hyaline Droplet Nephropathy Pigmentation	Moderate Minimal Moderate
	[Pigmentation TGLS = 2-5]		
* Liver		Basophilic Focus Eosinophilic Focus	
* Lung	Alveolar Epith	Hyperplasia Infiltration Cellular Pigmentation	Minimal Histiocyte, Minimal Mild
* Lymph Node, Mandibular		Hyperplasia	Mild
* Mammary Gland		Atrophy	Minimal
* Pancreas		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Hematopoietic Cell Proliferation Pigmentation	Mild Moderate
* Spleen			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 453

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77213

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 3 IS DILATED EXTERNAL AUDITORY CANAL FILLED WITH SEBUM-LIKE MATERIAL; ZYMBAL S GLAND NOT PRESENT.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 454

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Spleen		Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 2-21]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 455

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77215

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-8]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
[Pigmentation TGLS = 2-5]		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Hemorrhage	Minimal
* Mammary Gland		Hyperplasia	Minimal
* Nose		Foreign Body	
		Inflammation	Chronic, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
Note: MILD HYPERPLASIA OF OLFACTORY EPITHELIUM ASSOCIATED WITH INFLAMMATION; NOT CODED.			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 456

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Pituitary Gland

OBSERVATIONS

* Adrenal Cortex		Atrophy	Moderate
Note: MODERATE PIGMENTATION OF PARENCHYMAL CELLS; NOT TABULATED.			
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Chronic, Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
	[Pigmentation TGLS = 5-5]		
* Liver		Basophilic Focus	
Note: DIFFUSE HEPATOCELLULAR GLYCOGEN DEPLETION; NOT CODED.			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Pigmentation	Mild
Mesentery	Fat	Necrosis	Moderate
	[Necrosis TGLS = 4-21]		
* Ovary		Cyst	Marked
	[Cyst TGLS = 1-7]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 456

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76616

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

* Uterus

Hyperplasia

Cystic, Mild

Polyp Stromal

[Hyperplasia TGLS = 3-7]

[Polyp Stromal TGLS = 2-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 457

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76617

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Clitoral Gland

OBSERVATIONS

* Bone Marrow		Infiltration Cellular	Histiocyte, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 2-5]	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Infiltration Cellular	Mixed Cell, Moderate
	[Hepatodiaphragmatic Nodule TGLS = 1-21]		
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
* Spleen		Angiectasis	Moderate
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Uterus		Hydrometra	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 457

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76617

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: MILD PERIARTERITIS ON SLIDE 4 ADJACENT TO PANCREAS AND DUODENUM; NOT CODED.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 458

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76618

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Hypertrophy	Focal, Minimal
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 4-22]		
* Clitoral Gland		Adenoma	
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 3-5]		
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 2-21]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Skin		Hyperkeratosis	Mild
	Epidermis	Hyperplasia	Moderate
		Ulcer	Minimal
	[Hyperkeratosis TGLS = 1-8]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 458

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76618

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-8]

[Ulcer TGLS = 1-8]

* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 459

TRT#: 8

SEX: Female

DAY ON TEST: 674

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75135

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Brain		Compression	Moderate
		Hydrocephalus	Moderate
[Compression TGLS = 8-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Infarct	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 4-5]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
[Basophilic Focus TGLS = 10-6]			
[Eosinophilic Focus TGLS = 10-6]			
[Hepatodiaphragmatic Nodule TGLS = 5-23,6-24]			
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
[Fibroadenoma TGLS = 3-22]			
[Hyperplasia TGLS = 1-8,2-21]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 459

TRT#: 8

SEX: Female

DAY ON TEST: 674

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-75135

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 7-1]

* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Moderate

* Uterus

Hydrometra

Mild

[Hydrometra TGLS = 9-7]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 460

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Clitoral Gland	Bilateral	Adenoma	
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 3-5]	Pigmentation	Mild
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Eosinophilic Focus	
	[Angiectasis TGLS = 4-22]		
	[Basophilic Focus TGLS = 4-22]		
	[Eosinophilic Focus TGLS = 5-23]		
* Lymph Node, Mandibular		Hemorrhage	Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
	[Fibroadenoma TGLS = 2-21]		
	[Hyperplasia TGLS = 1-8]		
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 460

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76619

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 461

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Clitoral Gland	Ear
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
		Degeneration	Fatty, Minimal
		Hypertrophy	Focal, Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone	Cranium	Osteopetrosis	Moderate
	[Osteopetrosis TGLS = 3-22]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Cyst	Moderate
	[Cyst TGLS = 4-1]		
* Skin		Hyperkeratosis	Minimal
	Epidermis	Hyperplasia	Minimal
	[Hyperkeratosis TGLS = 2-21]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 461

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77216

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-21]

* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 462

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Brain		Hydrocephalus	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
	[Pigmentation TGLS = 5-5]		
* Liver		Basophilic Focus	
	[Basophilic Focus TGLS = 6-6]		
* Lymph Node, Mandibular		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 3-8]		
	[Hyperplasia TGLS = 3-8]		
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Skin		Hyperkeratosis	Minimal
	Epidermis	Hyperplasia	Mild
	[Hyperkeratosis TGLS = 1-21,2-22]		
	[Hyperplasia TGLS = 1-21,2-22]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 463

TRT#: 8

SEX: Female

DAY ON TEST: 597

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74658

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 2-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Uterus		Hyperplasia	Cystic, Minimal
[Hyperplasia TGLS = 1-7]			
Zymbal's Gland		Carcinoma	
[Carcinoma TGLS = 3-21]			

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 464

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule Degeneration Hyperplasia Adenoma	Moderate Fatty, Minimal Focal, Minimal
* Clitoral Gland [Adenoma TGLS = 4-8]			
* Kidney	Renal Tubule	Hyaline Droplet Nephropathy Pigmentation	Moderate Minimal Moderate
	Renal Tubule		
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus Clear Cell Focus Eosinophilic Focus Hepatocellular Adenoma	Multiple
[Clear Cell Focus TGLS = 8-24]			
[Hepatocellular Adenoma TGLS = 7-23]			
* Lung		Infiltration Cellular Pigmentation	Histiocyte, Minimal Mild
* Lymph Node, Mandibular		Fibroadenoma Hyperplasia	Moderate
* Mammary Gland			
[Fibroadenoma TGLS = 2-22]			
[Hyperplasia TGLS = 3-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Atrophy	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 464

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77218

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin

[Basal Cell Adenoma TGLS = 1-21]

Basal Cell Adenoma

* Spleen

Pigmentation

Moderate

* Uterus

[Hyperplasia TGLS = 5-7]

Hyperplasia

Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 465

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Brain	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Marked
* Bone	Cranium	Osteopetrosis	Moderate
	Femur	Osteopetrosis	Mild
	[Osteopetrosis TGLS = 9-23]		
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
	[Pigmentation TGLS = 5-5]	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
	[Basophilic Focus TGLS = 6-6]		
	[Eosinophilic Focus TGLS = 6-6]		
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Marked
	[Fibroadenoma TGLS = 2-22]		
	[Hyperplasia TGLS = 3-8]		
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
	[Adenoma TGLS = 7-1]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 465

TRT#: 8

DOSE: 2500 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 96-77219

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	Epidermis	Hyperplasia Ulcer	Moderate Moderate
Note: SECTION OF ULCERATED SKIN ALSO ON SLIDE 8. [Hyperplasia TGLS = 1-21] [Ulcer TGLS = 1-21]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 4-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 466

TRT#: 8

SEX: Female

DAY ON TEST: 657

DOSE: 2500 PPM

DISP: Natural Death

HISTO: 96-75015

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone		Osteosarcoma	
[Osteosarcoma TGLS = 2-21]			
* Bone Marrow		Hyperplasia	Marked
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Moderate
		Osteosarcoma	Metastatic (Bone)
	Renal Tubule	Pigmentation	Moderate
[Osteosarcoma TGLS = 5-23]			
[Pigmentation TGLS = 4-5,4-23]			
* Liver		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Moderate
	Centrilobular	Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 6-24]		Necrosis	Minimal
* Lung		Osteosarcoma	Metastatic (Bone)
[Osteosarcoma TGLS = 8-2-1,9-2-1]			
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
	Pars Distalis	Cyst	Moderate
[Angiectasis TGLS = 7-1]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 466	TRT#: 8	SEX: Female	DAY ON TEST: 657
	DOSE: 2500 PPM	DISP: Natural Death	HISTO: 96-75015

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLS = 7-1]		
* Spleen	Hematopoietic Cell Proliferation Pigmentation	Marked Mild
Note: TGL 3-22 IS DEVELOPMENTAL MALFORMATION; MORPHOLOGY NOT AVAILABLE.		
* Stomach, Glandular	Erosion	Mild
[Erosion TGLS = 10-4]		
* Urin Bladder		
Note: APPARENT FLUID IN SUBMUCOSA; POSSIBLE INFUSION ARTIFACT; NOT CODED.		

PRIMARY CAUSE OF DEATH	- Bone Osteosarcoma
-------------------------------	---------------------

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 467

TRT#: 8

SEX: Female

DAY ON TEST: 716

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-76267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	Vagina	

MISSING

* Parathyroid Gland

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Brain		Compression	Moderate
		Hydrocephalus	Moderate
[Compression TGLS = 9-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Marked
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 6-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Infiltration Cellular	Mixed Cell, Minimal
[Hepatodiaphragmatic Nodule TGLS = 7-22]			
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Moderate
* Lymph Node, Mesenteric		Hemorrhage	Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Marked
[Fibroadenoma TGLS = 2-21,12-23]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Emodin
CAS Number: 518-82-1

Date Report Requested: 10/20/2014
Time Report Requested: 23:24:12
First Dose M/F: NA / NA
Lab: SRI

ANIMAL ID: 467	TRT#: 8	SEX: Female	DAY ON TEST: 716
	DOSE: 2500 PPM	DISP: Moribund Sacrifice	HISTO: 96-76267

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-8]			
* Ovary		Cyst	Marked
[Cyst TGLS = 4-7]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 10-1]			
* Spleen		Pigmentation	Marked
* Thyroid Gland	C Cell	Carcinoma	
[Carcinoma TGLS = 8-3]			
* Uterus		Hydrometra	Mild
[Hydrometra TGLS = 3-7]			

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH	- Thyroid Gland C Cell Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 468

TRT#: 8

SEX: Female

DAY ON TEST: 603

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74659

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus	Vagina		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Mild
* Bone Marrow		Leukemia Mononuclear	
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-21]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
* Liver	Hepatocyte	Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
[Leukemia Mononuclear TGLS = 8-6]			
* Lung	Deep Cervical	Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-7]			
[Leukemia Mononuclear TGLS = 9-25]			
[Leukemia Mononuclear TGLS = 12-23]			
[Leukemia Mononuclear TGLS = 13-24]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 468

TRT#: 8

SEX: Female

DAY ON TEST: 603

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74659

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 3-8]	Leukemia Mononuclear	
* Lymph Node, Mesenteric	Leukemia Mononuclear	
* Mammary Gland [Hyperplasia TGLS = 2-8]	Hyperplasia	Mild
* Ovary [Cyst TGLS = 10-7]	Cyst	Moderate
* Spleen [Fibrosis TGLS = 5-22] [Leukemia Mononuclear TGLS = 4-6]	Fibrosis Leukemia Mononuclear	Moderate

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 469

TRT#: 8

SEX: Female

DAY ON TEST: 646

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74939

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Mild
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
	[Pigmentation TGLS = 2-5]		
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Ectasia	Mild
		Pigmentation	Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 1-21]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-1]		
* Salivary Glands		Atrophy	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Carcinoma	

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma; Thyroid Gland C Cell Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 470

TRT#: 8

SEX: Female

DAY ON TEST: 618

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74792

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus	Vagina		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Brain		Compression	Moderate
[Compression TGLS = 5-1]			
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Clear Cell Focus	
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
Mesentery	Fat	Necrosis	Mild
[Necrosis TGLS = 4-21]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-1]			
* Spleen		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 471

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Renal Tubule

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 472

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71458

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 473

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Nephropathy	Minimal
[Pigmentation TGLS = 3-5]		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Infiltration Cellular	Mixed Cell, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Pigmentation	Mild
* Lymph Node, Mesenteric		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
[Cyst TGLS = 2-1]			
* Spleen		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 474

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Fatty, Moderate
		Hypertrophy	Focal, Mild
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
	[Pigmentation TGLS = 1-5]		
* Liver		Basophilic Focus	
* Lung		Hemorrhage	Minimal
		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mandibular		Hemorrhage	Minimal
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Mild
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
* Spleen		Pigmentation	Mild
* Thyroid Gland	C Cell	Adenoma	
	Follicle	Cyst	Moderate
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 475

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-77222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-8]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 476

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71459

OBSERVATIONS

* Kidney

Renal Tubule

Hyaline Droplet

Mild

Renal Tubule

Pigmentation

Moderate

* Liver

Basophilic Focus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 477

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Moderate
	Renal Tubule	Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 478

TRT#: 8

SEX: Female

DAY ON TEST: 187

DOSE: 2500 PPM

DISP: Scheduled Sacrifice

HISTO: 95-71461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney	Renal Tubule	Hyaline Droplet	Mild
	Renal Tubule	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 479

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 2500 PPM

DISP: Terminal Sacrifice

HISTO: 96-76620

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 2-8]			
[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[Angiectasis TGLS = 4-1]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05211-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Emodin

CAS Number: 518-82-1

Date Report Requested: 10/20/2014

Time Report Requested: 23:24:12

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 480

TRT#: 8

SEX: Female

DAY ON TEST: 602

DOSE: 2500 PPM

DISP: Moribund Sacrifice

HISTO: 96-74660

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Moderate
* Kidney	Renal Tubule	Hyaline Droplet	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 3-5]			
* Liver		Basophilic Focus	
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Mild
[Fibroadenoma TGLS = 1-21]			
[Hyperplasia TGLS = 2-8]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-1]			
* Spleen		Pigmentation	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

** END OF REPORT **

* PROTOCOL REQUIRED TISSUE