

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

C Number: C20007

Lock Date: 05/24/2004

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Experiment Number: 20007-03
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 Lab: BAT

F 344/N Rat Male 0 G/KG	DAY ON TEST	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3
		0	0	0	0	0	0	0	0	0
ANIMAL ID		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

Cardiovascular System

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
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Route: Gavage
Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
Time Report Requested: 21:46:23
First Dose M/F: NA / NA
Lab: BAT

F 344/N Rat Male
0 G/KG

DAY ON TEST	0 0 0 0 0 0 0 0 0 0										
	0 0 0 0 0 0 0 0 0 0										
ANIMAL ID	9 9 9 9 9 9 9 9 9 9										
	3 3 3 3 3 3 3 3 3 3										
		*TOTALS									

Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

Mammary Gland	+	+	M	+	M	+	+	+	M	+	7
Skin	+	+	+	+	+	+	+	+	+	+	10

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

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X ..Lesion present

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Test Type: 90-DAY

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Species/Strain: Rat/F 344/N

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Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0 G/KG

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Bone	+	+	+	+	+	+	+	+	+	+	10
Nervous System											
Brain	+	+	+	+	+	+	+	+	+	+	10
Respiratory System											
Lung	+	+	+	+	+	+	+	+	+	+	10
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
Special Senses System											
Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Urinary System											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10
SYSTEMIC LESIONS											
Multiple Organ	+	+	+	+	+	+	+	+	+	+	10

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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Route: Gavage

Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.125 G/KG

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	2
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Alimentary System

Liver

+ + + + + + + + + + 10

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Bone Marrow

+ + + + + + + + + + 10

Spleen

+ + + + + + + + + + 10

Thymus

+ + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.125 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
Test Type: 90-DAY
Route: Gavage
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
Time Report Requested: 21:46:23
First Dose M/F: NA / NA
Lab: BAT

**F 344/N Rat Male
0.25 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | |
|---------------------------|---|----|
| Esophagus | + | 1 |
| Intestine Large, Cecum | + | 1 |
| Intestine Large, Colon | + | 1 |
| Intestine Large, Rectum | + | 1 |
| Intestine Small, Duodenum | + | 1 |
| Intestine Small, Ileum | + | 1 |
| Intestine Small, Jejunum | + | 1 |
| Liver | + | 10 |
| Pancreas | + | 1 |
| Salivary Glands | + | 1 |
| Stomach, Forestomach | + | 1 |
| Stomach, Glandular | + | 1 |

Cardiovascular System

| | | |
|--------------|---|---|
| Blood Vessel | + | 1 |
| Heart | + | 1 |

Endocrine System

| | | |
|--------------------|---|---|
| Adrenal Cortex | + | 1 |
| Adrenal Medulla | + | 1 |
| Islets, Pancreatic | + | 1 |
| Parathyroid Gland | + | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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BLANK ..Not examined microscopically

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Test Type: 90-DAY
Route: Gavage
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
Time Report Requested: 21:46:23
First Dose M/F: NA / NA
Lab: BAT

**F 344/N Rat Male
0.25 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

| | | |
|-----------------|---|---|
| Pituitary Gland | + | 1 |
| Thyroid Gland | + | 1 |

General Body System

NONE

Genital System

| | | |
|-----------------|---|---|
| Epididymis | + | 1 |
| Preputial Gland | + | 1 |
| Prostate | + | 1 |
| Seminal Vesicle | + | 1 |
| Testes | + | 1 |

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | | | | M | | | | | | | 0 |
| Lymph Node, Mesenteric | | | | + | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

Integumentary System

| | | |
|---------------|---|---|
| Mammary Gland | + | 1 |
| Skin | + | 1 |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.25 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

*TOTALS

| | | |
|------------------------------|---|----|
| Bone | + | 1 |
| Nervous System | | |
| Brain | + | 1 |
| Respiratory System | | |
| Lung | + | 1 |
| Nose | + | 1 |
| Trachea | + | 1 |
| Special Senses System | | |
| Eye | + | 1 |
| Harderian Gland | + | 1 |
| Urinary System | | |
| Kidney | + | 1 |
| Urinary Bladder | + | 1 |
| SYSTEMIC LESIONS | | |
| Multiple Organ | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 20007-03

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Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.5 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

Liver

+ + + + + + + + + + 10

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Bone Marrow

+ + + + + + + + + + 10

Spleen

+ + + + + + + + + + 10

Thymus

+ + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

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I ..Insufficient tissue

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Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.5 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

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Route: Gavage

Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

Liver

+ + + + + + + + + + 10

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Bone Marrow

+ + + + + + + + + + 10

Spleen

+ + + + + + + + + + 10

Thymus

+ + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

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Date Report Requested: 10/17/2014

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

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A ..Autolysis precludes evaluation

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 Test Type: 90-DAY
 Route: GAVAGE
 Species/Strain: Rat/F 344/N

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Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:23
 First Dose M/F: NA / NA
 Lab: BAT

**F 344/N Rat Male
 2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | M | + | + | 9 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
|-----------------|-----------------------|--|--|--|--|--|--|--|--|---------|
| | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
| ANIMAL ID | 9 9 8 9 8 9 9 9 9 9 0 | | | | | | | | | |
| | 3 3 0 3 0 3 3 3 3 3 5 | | | | | | | | | |
| | | | | | | | | | | *TOTALS |
| Pituitary Gland | + + + + + + + + + + | | | | | | | | | 10 |
| Thyroid Gland | + + + + + + + + + + | | | | | | | | | 10 |

General Body System

NONE

Genital System

Epididymis

+ + + + + + + + + +

10

Preputial Gland

+ + + + + + + + + +

10

Prostate

+ + + + + + + + + +

10

Seminal Vesicle

+ + + + + + + + + +

10

Testes

+ + + + + + + + + +

10

Hematopoietic System

Bone Marrow

+ + + + + + + + + +

10

Lymph Node, Mandibular

M M M M M M M M M M

0

Lymph Node, Mesenteric

+ + + + + + + + + +

10

Spleen

+ + + + + + + + + +

10

Thymus

+ + + + + + + + + +

10

Integumentary System

Mammary Gland

+ + + + + + + + + M

9

Skin

+ + + + + + + + + +

10

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:23

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 8 | 9 | 8 | 9 | 9 | 9 | 9 | 0 |
| | 3 | 3 | 0 | 3 | 0 | 3 | 3 | 3 | 3 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Bone + + + + + + + + + + 10

Nervous System

Brain + + + + + + + + + + 10

Respiratory System

Lung + + + + + + + + + + 10

Nose + + + + + + + + + + 10

Trachea + + + + + + + + + + 10

Special Senses System

Eye + + + + + + + + + + 10

Harderian Gland + + + + + + + + + + 10

Urinary System

Kidney + + + + + + + + + + 10

Urinary Bladder + + + + + + + + + + 10

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + 10

END OF MALE DATA

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 20007-03
 Test Type: 90-DAY
 Route: GAVAGE
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:23
 First Dose M/F: NA / NA
 Lab: BAT

| F 344/N Rat Female
0 G/KG | DAY ON TEST | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 9 | 9 | 1 | 9 | 9 | 9 | 9 | 9 |
| | | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Mesentery | | | | | | | + | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
 Test Type: 90-DAY
 Route: Gavage
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
 Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:24
 First Dose M/F: NA / NA
 Lab: BAT

F 344/N Rat Female
0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------------------------|----------------|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 1 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | *TOTALS | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + |
| General Body System | | | | | | | | | | |
| NONE | | | | | | | | | | |
| Genital System | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + |
| Ovary | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic System | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + |
| Thymus | + | + | + | + | + | + | + | + | + | + |
| Integumentary System | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + |
| Skin | + | + | + | + | + | + | + | + | + | + |
| Musculoskeletal System | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:24

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 1 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

Brain + + + + + + + + + + 10

Respiratory System

Lung + + + + + + + + + + 10

Nose + + + + + + + + + + 10

Trachea + + + + + + + + + + 10

Special Senses System

Eye + + + + + + + + + + 10

Harderian Gland + + + + + + + + + + 10

Urinary System

Kidney + + + + + + + + + + 10

Urinary Bladder + + + + + + + + + + 10

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + 10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
 Test Type: 90-DAY
 Route: Gavage
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:24
 First Dose M/F: NA / NA
 Lab: BAT

**F 344/N Rat Female
 0.125 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

Liver + + + + + + + + + + 10

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Bone Marrow + + + + + + + + + + 10

Spleen + + + + + + + + + + 10

Thymus + + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0.125 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
 Test Type: 90-DAY
 Route: Gavage
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:24
 First Dose M/F: NA / NA
 Lab: BAT

**F 344/N Rat Female
 0.25 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

Liver + + + + + + + + + + 10

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Bone Marrow + + + + + + + + + + 10

Spleen + + + + + + + + + + 10

Thymus + + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0.25 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03
 Test Type: 90-DAY
 Route: GAVAGE
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
 Test Compound: Kava kava extract
 CAS Number: 9000-38-8

Date Report Requested: 10/17/2014
 Time Report Requested: 21:46:24
 First Dose M/F: NA / NA
 Lab: BAT

| F 344/N Rat Female
0.5 G/KG | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Mesentery | | | | | | | + | | | | 1 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

Integumentary System

NONE

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:24

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0.5 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + + +

10

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 10/17/2014

Time Report Requested: 21:46:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
1.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 3 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | |
|---------------------------|---|----|
| Esophagus | + | 1 |
| Intestine Large, Cecum | + | 1 |
| Intestine Large, Colon | + | 1 |
| Intestine Large, Rectum | + | 1 |
| Intestine Small, Duodenum | + | 1 |
| Intestine Small, Ileum | + | 1 |
| Intestine Small, Jejunum | + | 1 |
| Liver | + | 10 |
| Pancreas | + | 1 |
| Salivary Glands | + | 1 |
| Stomach, Forestomach | + | 1 |
| Stomach, Glandular | + | 1 |

Cardiovascular System

| | | |
|--------------|---|---|
| Blood Vessel | + | 1 |
| Heart | + | 1 |

Endocrine System

| | | |
|--------------------|---|---|
| Adrenal Cortex | + | 1 |
| Adrenal Medulla | + | 1 |
| Islets, Pancreatic | + | 1 |
| Parathyroid Gland | + | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 20007-03

Test Type: 90-DAY

Route: Gavage

Species/Strain: Rat/F 344/N

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|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 3 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |

*TOTALS

Pituitary Gland + 1
Thyroid Gland + 1

General Body System

NONE

Genital System

Clitoral Gland + 1
Ovary + 1
Uterus + 1

Hematopoietic System

Bone Marrow + + + + + + + + + + 10
Lymph Node, Mandibular M 0
Lymph Node, Mesenteric + 1
Spleen + + + + + + + + + + 10
Thymus + + + + + + + + + + 10

Integumentary System

Mammary Gland + 1
Skin + 1

Musculoskeletal System

Bone + 1

* ..Total animals with tissue examined microscopically; Total animals with tumor

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F 344/N Rat Female
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 3 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |

*TOTALS

Nervous System

Brain + 1

Respiratory System

Lung + 1

Nose + 1

Trachea + 1

Special Senses System

Eye + 1

Harderian Gland + 1

Urinary System

Kidney + 1

Urinary Bladder + 1

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + 10

* ..Total animals with tissue examined microscopically; Total animals with tumor

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| F 344/N Rat Female
2.0 G/KG | DAY ON TEST | | | | | | | | | | |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 0 | 9 | 9 | 4 | 0 | 0 | 9 | 9 |
| | | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 4 | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

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| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 9 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Ovary | + | + | + | + | + | + | + | + | + | + | 10 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

* ..Total animals with tissue examined microscopically; Total animals with tumor

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|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 0 | 9 | 9 | 4 | 0 | 0 | 9 | 9 |
| | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 4 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Nervous System

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | 9 |
| Brain, Cerebrum | | | | | | | + | | | | 1 |

Respiratory System

| | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |

Special Senses System

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | 10 |

Urinary System

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 10 |

SYSTEMIC LESIONS

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | 10 |
|----------------|---|---|---|---|---|---|---|---|---|---|----|

** END OF REPORT **

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

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