

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:24

First Dose M/F: NA / NA

Lab: NIEHS

C Number:	C92004
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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CAS Number: DIET9192

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Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST	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
		4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7
		1	0	5	1	5	5	3	3	0	0	4	9	7	4	4	5	5	8	9	1	3	3	1	1	1	1	1	
		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	0	0	0	0	0	
		0	1	1	1	0	1	0	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	
		6	0	1	0	8	0	7	1	7	8	0	0	7	9	1	7	9	8	0	1	6	8	6	6	6	7	8	
		8	1	0	6	6	4	7	3	8	2	8	9	0	7	2	3	1	9	2	8	2	1	3	5	7	2	4	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hepatocellular Adenoma																												
Hepatocellular Carcinoma																												
Mesentery	+	+									+																	
Lipoma																												
Pancreas	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach																												
Stomach, Glandular																												
Tongue																												
Squamous Cell Papilloma																												

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Schwannoma Malignant																											X		X

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+
Adenoma																												
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+
Bilateral, Pheochromocytoma Benign			X																						X	X		
Pheochromocytoma Benign											X	X					X											X
Pheochromocytoma Malignant																												

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
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Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST																													
	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	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7		
	1	0	5	1	5	5	3	3	0	0	4	9	7	4	4	5	5	8	9	1	3	3	1	1	1	1	1	1		
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	0	0	0	0	0	0	0		
	0	1	1	1	0	1	0	1	0	0	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0		
	6	0	1	0	8	0	7	1	7	8	0	0	7	9	1	7	9	8	0	1	6	8	6	6	7	8	9	9		
	8	1	0	6	6	4	7	3	8	2	9	0	7	2	3	1	9	2	8	2	1	3	5	7	2	4	5	6		
Islets, Pancreatic Adenoma	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Parathyroid Gland Adenoma	M	M	M	+	+	+	M	M	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	
Pituitary Gland Pars Distalis, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	
Thyroid Gland C Cell, Adenoma	+	M	M	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+
Thyroid Gland Cystadenoma							X																							
General Body System																														
Peritoneum											+																			
Genital System																														
Penis																														
Preputial Gland Adenoma												M													+					
Seminal Vesicle																														
Testes																														
Bilateral, Interstit Cell, Adenoma																														
Interstitial Cell, Adenoma																														
Hematopoietic System																														
Lymph Node																														

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
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First Dose M/F: NA / NA
Lab: NIEHS

**F 344/N Rat Male
07M**

	DAY ON TEST																														
	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			
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	0	0	0	0	0	0	0			
	0	1	1	1	0	1	0	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0			
	6	0	1	0	8	0	7	1	7	8	0	0	7	9	1	7	9	8	0	1	6	8	6	6	6	7	8	8			
	8	1	0	6	6	4	7	3	8	2	8	9	0	7	2	3	1	9	2	8	2	1	3	5	7	2	4	5	0	2	6
Lymph Node, Mandibular	+																														
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Osteosarcoma																															
Thymus	M	+	M	+	M	+	+	M	+	M	M	M		M	+	+	M	M	M	M	+	+	+	M	M	+	+	M	M	M	+
Thymoma Benign																															
Integumentary System																															
Mammary Gland	+																														
Adenocarcinoma																															
Adenoma																															
Carcinoma																															
Fibroadenoma	X																														
Skin																															
Fibroma																															
Keratoacanthoma																															
Melanoma Malignant																															
Squamous Cell Carcinoma																															
Subcut Tiss, Fibroma	X																														
Musculoskeletal System																															
NONE																															
Nervous System																															

* ..Total animals with tissue examined microscopically; Total animals with tumor
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Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:25

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST	F 344/N Rat Male 07M																															
	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07	07
ANIMAL ID	00	00	01	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	19	19	21	22	22	25	26	26	26	26	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	01	00	00	01	00	01	00	00	00	00	00	00	01	00	00	00	01	00	00	00	00	00	01	01	01	01	01	01	01	01	01	01
	00	09	09	00	07	01	07	07	07	08	08	00	06	06	08	09	00	06	06	08	09	09	01	01	01	01	01	01	01	01	02	00
	35	58	87	75	51	11	44	66	99	00	75	15	14	88	99	06	69	33	44	44	55	66	77	77	99	99	99	99	99	99	99	99

Alimentary System

Liver	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hepatocellular Adenoma											X						X							X								
Hepatocellular Carcinoma																																X
Mesentery		+					+							+									+				+					
Lipoma																																X
Pancreas	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach											+											+		+								
Stomach, Glandular											+																					
Tongue		+																														
Squamous Cell Papilloma		X																														

Cardiovascular System

Heart	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Schwannoma Malignant																																

Endocrine System

Adrenal Cortex	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																																
Adrenal Medulla	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Pheochromocytoma Benign				X	X											X							X									
Pheochromocytoma Benign									X	X										X									X	X		
Pheochromocytoma Malignant																															X	

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Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST																												
	07 01	07 01	07 02	07 01	07 02	07 05	07 06	07 06	07 06	07 06	07 06	07 06	07 06	07 07	07 07	07 07	07 07	07 07	07 07	07 08	07 08	07 08	07 08	07 08	07 09	07 09	07 09	07 09	
ANIMAL ID	0013	0005	0008	0007	0005	0001	0007	0004	0006	0006	0009	0006	0007	0005	0001	0004	0008	0009	0000	0006	0006	0008	0003	0003	0004	0005	0006	0007	0009
Islets, Pancreatic Adenoma	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Parathyroid Gland Adenoma	+	M	M	M	+		+	+	M	M	M	+	+	+	+	+	M	M	M	I	+	+	M	+	M	+	+	M	M
Pituitary Gland Pars Distalis, Adenoma	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	
Thyroid Gland C Cell, Adenoma	X				X		X	X						X		X			X	X			X	X	X	X	X	X	
Thyroid Gland Cystadenoma	+	+	M	M	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+
General Body System																													
Peritoneum																													
Genital System																													
Penis																												+	
Preputial Gland Adenoma								+							+		+							+					
Seminal Vesicle																													
Testes	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Interstit Cell, Adenoma			X		X		X	X	X	X	X	X	X	X	X	X		X	X	X	X		X		X		X	X	
Interstitial Cell, Adenoma	X				X												X						X				X		
Hematopoietic System																													
Lymph Node																													

* ..Total animals with tissue examined microscopically; Total animals with tumor
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CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male
07M

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

Lymph Node, Mandibular																													
Lymph Node, Mesenteric	+	+	M	+	+		+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Osteosarcoma																													
Thymus	+	+	M	+	M		M	+	M	M	+	M	M	+	+	+	+	+	+	M	M	+	I	+	+	+	M	+	+
Thymoma Benign																													

Integumentary System

Mammary Gland																													
Adenocarcinoma																													
Adenoma																													
Carcinoma																													
Fibroadenoma																													
Skin	+	+																											
Fibroma	X																												
Keratoacanthoma																													
Melanoma Malignant																													
Squamous Cell Carcinoma																													
Subcut Tiss, Fibroma																													

Musculoskeletal System

NONE

Nervous System

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F 344/N Rat Male 07M	DAY ON TEST	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	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		0	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	1	9	2	1	2	5	6	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9	
		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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	
		0	9	9	0	7	1	7	7	7	7	8	8	0	6	6	8	9	0	6	6	8	9	9	1	1	1	1	1	1	1	1	2	
		3	5	8	7	5	1	1	4	6	9	0	7	5	1	4	8	9	0	6	9	3	3	4	4	5	6	7	9	9	9	0	0	

Brain																																					
Brain, Cerebellum																																					
Respiratory System																																					
Lung	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Alveolar/Bronchiolar Adenoma																																					
Alveolar/Bronchiolar Carcinoma																																					
Squamous Cell Carcinoma																																					
Special Senses System																																					
NONE																																					
Urinary System																																					
Kidney	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Urinary Bladder	+	+	M	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SYSTEMIC LESIONS																																					
Multiple Organ	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear		X					X	X		X		X			X	X	X		X		X		X	X		X											
Mesothelioma Malignant																																					X

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Time Report Requested: 18:17:25

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

***TOTALS**

Alimentary System

Liver	57
Hepatocellular Adenoma	3
Hepatocellular Carcinoma	1
Mesentery	8
Lipoma	1
Pancreas	56
Stomach, Forestomach	4
Stomach, Glandular	1
Tongue	1
Squamous Cell Papilloma	1

Cardiovascular System

Heart	57
Schwannoma Malignant	2

Endocrine System

Adrenal Cortex	56
Adenoma	1
Adrenal Medulla	56
Bilateral, Pheochromocytoma Benign	7
Pheochromocytoma Benign	10
Pheochromocytoma Malignant	1
Islets, Pancreatic	56

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:25

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Male
07M**

ANIMAL ID

***TOTALS**

Adenoma	5
Parathyroid Gland	36
Adenoma	1
Pituitary Gland	55
Pars Distalis, Adenoma	26
Thyroid Gland	51
C Cell, Adenoma	5
Cystadenoma	1
General Body System	
Peritoneum	1
Genital System	
Penis	1
Preputial Gland	5
Adenoma	4
Seminal Vesicle	2
Testes	56
Bilateral, Interstit Cell, Adenoma	36
Interstit Cell, Adenoma	12
Hematopoietic System	
Lymph Node	1
Lymph Node, Mandibular	2
Lymph Node, Mesenteric	56

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:25

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Male
07M**

ANIMAL ID

***TOTALS**

Spleen	57
Osteosarcoma	1
Thymus	30
Thymoma Benign	2
Integumentary System	
Mammary Gland	5
Adenocarcinoma	1
Adenoma	1
Carcinoma	1
Fibroadenoma	2
Skin	10
Fibroma	2
Keratoacanthoma	3
Melanoma Malignant	1
Squamous Cell Carcinoma	1
Subcut Tiss, Fibroma	2
Musculoskeletal System	
NONE	
Nervous System	
Brain	1
Brain, Cerebellum	1
Respiratory 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: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:17:25
First Dose M/F: NA / NA
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male
07M

ANIMAL ID

*TOTALS

Lung	57
Alveolar/Bronchiolar Adenoma	1
Alveolar/Bronchiolar Carcinoma	1
Squamous Cell Carcinoma	1
Special Senses System	
NONE	
Urinary System	
Kidney	57
Urinary Bladder	55
SYSTEMIC LESIONS	
Multiple Organ	57
Leukemia Mononuclear	32
Mesothelioma Malignant	3

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:25

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

	DAY ON TEST	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
F 344/N Rat Male 91M		3	3	4	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		3	6	8	0	4	5	6	6	7	0	1	2	3	3	4	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	
		7	5	2	3	5	7	1	2	5	3	5	9	8	9	6	1	1	1	1	1	1	1	1	8	9	2	6	0	2	6	6	6	6	6	
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	1	2	2	1	2	2	2	1	2	2	1	2	2	2	1	1	2	2	2	2	2	2	1	2	2	2	1	1	2	2	2	2	2	
		3	9	1	2	9	2	3	1	8	0	3	9	2	0	1	8	9	0	1	1	2	2	3	9	1	3	1	8	8	0	0	0	0	0	
		2	7	2	8	6	3	3	4	8	8	8	8	5	0	3	1	0	3	6	7	0	7	6	4	0	4	1	2	4	1	2	4	1	2	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hepatocellular Adenoma																																					X
Mesentery																																					
Pancreas	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Schwannoma Malignant																																					

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Pheochromocytoma Benign																																					X
Pheochromocytoma Benign																																					X
Islets, Pancreatic	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																																					X
Parathyroid Gland	+	M	M	+	M	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	M	
Pituitary Gland	+	+	A	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Adenoma																																					X
Thyroid Gland	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C Cell, Adenoma																																					X
Follicular Cel, Adenoma																																					X

* ..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: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:17:26
First Dose M/F: NA / NA
Lab: NIEHS

**F 344/N Rat Male
 91M**

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

Subcut Tiss, Fibroma
 Trichoepithelioma

X

Musculoskeletal System

NONE

Nervous System

Brain

+

Brain, Cerebrum

+

Respiratory System

Lung

+ + + + + M +

Special Senses System

Zymbal's Gland

+

Adenoma

X

Urinary System

Kidney

+ +

Urinary Bladder

+ + + + + M +

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X

Mesothelioma Malignant

X

X

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:26

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Male
91M | DAY ON TEST | 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 |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | | 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 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| | | 0 | 0 | 1 | 1 | 8 | 8 | 8 | 8 | 8 | 9 | 1 | 2 | 2 | 2 | 3 | 3 | 9 | 9 | 9 | 0 | 0 | 0 | 2 | 2 | 3 | 9 | 3 |
| | | 4 | 5 | 8 | 9 | 3 | 5 | 6 | 7 | 9 | 2 | 5 | 1 | 2 | 4 | 1 | 5 | 1 | 3 | 5 | 6 | 7 | 9 | 6 | 9 | 0 | 9 | 7 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Schwannoma Malignant | | | | | | | | | | | | X | | | | X | | | | | | | | | | | | |

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Benign | | | | | X | | X | | | | | | | | | | X | X | | | | | | X | X | | X | X | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | X | | | X | | | | | | | | | | | | | | | X | | | | |
| Parathyroid Gland | + | M | M | | + | + | M | + | + | M | + | + | + | + | + | + | M | + | M | + | M | + | M | + | + | M | M | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | X | | | | | | | | | X | X | | X | X | X | | X | | | X | X | X | | X | X | | X | X | |
| Thyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | X | | | | | | | | | X | | | | | | | | | X | | | | | | X | | | X | |
| Follicular Cel, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:26

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male
91M

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

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | + | | | | | | | | | + | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | | | + | | | | | + | | | | | + | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Interstit Cell, Adenoma | X | X | X | | X | X | X | | X | X | | X | X | | X | X | | X | X | X | X | | X | X | X | X | X | X | X | X | |
| Interstit Cell, Adenoma | | | | X | | | | X | | | X | | | X | X | | X | | | | | X | | | | | | | | | |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus | + | M | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|---|--|--|--|--|--|--|--|--|---|---|---|---|--|--|--|--|--|---|---|--|--|---|--|--|--|--|--|
| Mammary Gland | | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Skin | | | | + | | | | | | | | | | | + | + | | | | | | + | + | | | | | | | | |
| Basal Cell Carcinoma | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Fibroma | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | X | | | | | | | | | | | X | | | | | |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:26

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| DAY ON TEST | F 344/N Rat Male 91M | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| | 0 | 0 | 1 | 1 | 8 | 8 | 8 | 8 | 8 | 9 | 1 | 2 | 2 | 2 | 3 | 3 | 9 | 9 | 9 | 0 | 0 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 4 |
| | 4 | 5 | 8 | 9 | 3 | 5 | 6 | 7 | 8 | 9 | 2 | 5 | 1 | 2 | 4 | 1 | 5 | 1 | 3 | 5 | 6 | 7 | 9 | 6 | 9 | 0 | 7 | 9 | 0 |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichoepithelioma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:26

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|------------------------|----|
| Liver | 60 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 4 |
| Pancreas | 59 |

Cardiovascular System

| | |
|----------------------|----|
| Heart | 60 |
| Schwannoma Malignant | 2 |

Endocrine System

| | |
|------------------------------------|----|
| Adrenal Cortex | 60 |
| Adrenal Medulla | 60 |
| Bilateral, Pheochromocytoma Benign | 2 |
| Pheochromocytoma Benign | 10 |
| Islets, Pancreatic | 59 |
| Adenoma | 6 |
| Parathyroid Gland | 41 |
| Pituitary Gland | 58 |
| Pars Distalis, Adenoma | 25 |
| Thyroid Gland | 58 |
| C Cell, Adenoma | 9 |
| Follicular Cel, Adenoma | 1 |

General Body 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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:26

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

***TOTALS**

NONE

Genital System

| | |
|------------------------------------|----|
| Preputial Gland | 3 |
| Adenoma | 3 |
| Seminal Vesicle | 3 |
| Testes | 60 |
| Bilateral, Interstit Cell, Adenoma | 42 |
| Interstit Cell, Adenoma | 11 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node | 1 |
| Lymph Node, Mesenteric | 57 |
| Spleen | 59 |
| Thymus | 46 |

Integumentary System

| | |
|----------------------|---|
| Mammary Gland | 1 |
| Fibroadenoma | 1 |
| Skin | 9 |
| Basal Cell Carcinoma | 2 |
| Fibroma | 2 |
| Subcut Tiss, Fibroma | 3 |
| Trichoepithelioma | 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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:26

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

*TOTALS

| NONE | |
|------------------------------|----|
| Nervous System | |
| Brain | 1 |
| Brain, Cerebrum | 1 |
| Respiratory System | |
| Lung | 59 |
| Special Senses System | |
| Zymbal's Gland | 1 |
| Adenoma | 1 |
| Urinary System | |
| Kidney | 60 |
| Urinary Bladder | 59 |
| SYSTEMIC LESIONS | |
| Multiple Organ | 60 |
| Leukemia Mononuclear | 31 |
| Mesothelioma Malignant | 3 |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:26

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Male
92M | DAY ON TEST | 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 | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 7 | 6 | 9 | 0 | 0 | 2 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 5 | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 9 | 9 | 7 | 5 | 5 | 0 | 4 | 0 | 3 | 9 | 0 | 5 | 1 | 5 | 5 | 6 | 2 | 6 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 0 | 0 | 1 | 4 | 4 | 2 | 0 | 0 | 6 | 2 | 2 | 4 | 5 | 1 | 0 | 4 | 0 | 1 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 1 | 1 | 7 |
| | | 7 | 8 | 0 | 1 | 5 | 8 | 1 | 9 | 0 | 2 | 4 | 3 | 0 | 5 | 6 | 5 | 3 | 8 | 7 | 1 | 0 | 1 | 5 | 9 | 1 | 2 | 7 | 2 | 9 | 2 | 9 | 7 | 7 | 7 | 7 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|--|---|---|---|---|---|---|--|---|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Liver | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Pancreas | A | M | + | + | | + | + | + | + | + | + | | M | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|--|---|---|---|---|---|---|--|---|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|--|---|---|---|---|---|---|--|---|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Islets, Pancreatic | A | M | + | + | | + | + | + | + | + | + | | M | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | | |
| Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | M | | M | + | M | M | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | M | + | + | M | + | M | M | M | M | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | | | | X | X | | | | | X | X | | | | X | X | | | | X | | | | | | | | | | | | | | | | X | X | |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Thyroid Gland | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:27

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male
92M | DAY ON TEST | 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 | |
| | | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 7 | 6 | 9 | 0 | 0 | 2 | 4 | 5 | 8 | 8 | 8 | 8 | 9 | 9 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 7 | 5 | 5 | 5 | 0 | 4 | 0 | 3 | 9 | 9 | 0 | 5 | 1 | 2 | 5 | 6 | 2 | 6 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 5 | 6 | | | | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 0 | 0 | 1 | 4 | 4 | 2 | 0 | 0 | 6 | 2 | 2 | 4 | 5 | 1 | 0 | 4 | 0 | 1 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 5 | 4 | 4 | 1 | | | |
| | | 7 | 8 | 0 | 1 | 5 | 8 | 1 | 9 | 0 | 2 | 4 | 3 | 0 | 5 | 6 | 5 | 3 | 8 | 7 | 1 | 5 | 9 | 1 | 2 | 7 | 2 | 9 | | | | | | | |

Follicular Cel, Adenoma

General Body System

Peritoneum

+

+

Genital System

Preputial Gland

+

Adenoma

X

Squamous Cell Papilloma

Seminal Vesicle

Testes

+ +

Bilateral, Interstit Cell, Adenoma

X X

Interstit Cell, Adenoma

X X

Hematopoietic System

Lymph Node

+

+

Lymph Node, Mandibular

Lymph Node, Mesenteric

A + M +

Spleen

+ +

Fibroma

Fibrous Histiocytoma

Thymus

A + M + + + + + M + + + M M M + M + M M + + + + + + + M M

Integumentary System

Mammary Gland

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:27

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| DAY ON TEST | 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 | |
| F 344/N Rat Male | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 92M | 7 | 6 | 9 | 0 | 0 | 2 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 5 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 7 | 5 | 5 | 0 | 4 | 0 | 3 | 9 | 9 | 9 | 0 | 5 | 1 | 5 | 5 | 6 | 2 | 6 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 5 | 6 |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 1 | 4 | 4 | 2 | 0 | 0 | 6 | 2 | 2 | 4 | 5 | 1 | 0 | 4 | 0 | 1 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 5 | 4 | 4 |
| | 7 | 8 | 0 | 1 | 5 | 8 | 1 | 9 | 0 | 2 | 4 | 3 | 0 | 5 | 6 | 5 | 3 | 8 | 7 | 1 | 0 | 1 | 5 | 9 | 1 | 2 | 7 | 2 | 9 | 7 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vertebra, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

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Experiment Number: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:27

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male
92M | DAY ON TEST | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 3 | 3 | 3 | 4 | 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 5 | 5 | 5 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 4 | 5 | 5 |
| | 6 | 7 | 8 | 0 | 8 | 6 | 8 | 9 | 0 | 6 | 7 | 9 | 2 | 3 | 4 | 3 | 4 | 5 | 2 | 3 | 4 | 1 | 2 | 4 | 3 | 5 | 4 | 6 | 9 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesentery | | + | | + | | | | | | | | | | | | | | | | | + | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Salivary Glands | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Benign | | | | X | | | | | X | | X | | | | X | | | | | | | | | | | | | X |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | M | + | + | M | + | + | M | + | + | + | + | + | + | M | M | M | M | + | + | + | + | + | + | + | + | + | + | M |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma | | | X | X | | X | | | X | X | | | X | | | | | X | | | | | X | | | | X | |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* ..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

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Time Report Requested: 18:17:28

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male 92M

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Musculoskeletal System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vertebra, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Nervous System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Respiratory System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Special Senses System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- * ..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: 92004-01
 Test Type: CHRONIC
 Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

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 CAS Number: DIET9192

Date Report Requested: 10/20/2014
 Time Report Requested: 18:17:28
 First Dose M/F: NA / NA
 Lab: NIEHS

F 344/N Rat Male
 92M

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

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Papilloma | | | | | | | | | | | X | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | X | X | X | | X | | X | X | | X | | X | X | | X | | X | | | X | | | | | | | X |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

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Date Report Requested: 10/20/2014

Time Report Requested: 18:17:28

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

*TOTALS

Alimentary System

| | |
|-----------------|----|
| Liver | 56 |
| Mesentery | 5 |
| Pancreas | 52 |
| Salivary Glands | 1 |

Cardiovascular System

| | |
|-------|----|
| Heart | 56 |
|-------|----|

Endocrine System

| | |
|------------------------------------|----|
| Adrenal Cortex | 56 |
| Adrenal Medulla | 56 |
| Bilateral, Pheochromocytoma Benign | 1 |
| Pheochromocytoma Benign | 6 |
| Islets, Pancreatic | 52 |
| Adenoma | 1 |
| Parathyroid Gland | 40 |
| Adenoma | 1 |
| Pituitary Gland | 56 |
| Pars Distalis, Adenoma | 18 |
| Pars Distalis, Carcinoma | 1 |
| Thyroid Gland | 56 |
| C Cell, Adenoma | 1 |
| Follicular Cel, Adenoma | 1 |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

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CAS Number: DIET9192

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First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male
92M

ANIMAL ID

*TOTALS

General Body System

Peritoneum 2

Genital System

Preputial Gland 3

Adenoma 2

Squamous Cell Papilloma 1

Seminal Vesicle 5

Testes 56

Bilateral, Interstit Cell, Adenoma 37

Interstit Cell, Adenoma 14

Hematopoietic System

Lymph Node 2

Lymph Node, Mandibular 1

Lymph Node, Mesenteric 54

Spleen 56

Fibroma 1

Fibrous Histiocytoma 1

Thymus 38

Integumentary System

Mammary Gland 3

Fibroadenoma 2

Inguinal, Fibroadenoma 1

* ..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

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Species/Strain: Rat/F 344/N

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CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:28

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Male
92M**

ANIMAL ID

***TOTALS**

| | |
|--------------------------------|----|
| Skin | 3 |
| Keratoacanthoma | 2 |
| Subcut Tiss, Fibroma | 1 |
| Musculoskeletal System | |
| Bone | 1 |
| Vertebra, Osteosarcoma | 1 |
| Nervous System | |
| Brain, Cerebellum | 1 |
| Respiratory System | |
| Lung | 56 |
| Alveolar/Bronchiolar Adenoma | 1 |
| Alveolar/Bronchiolar Carcinoma | 1 |
| Osteosarcoma, Metastatic, Bone | 1 |
| Squamous Cell Carcinoma | 1 |
| Special Senses System | |
| Zymbal's Gland | 1 |
| Carcinoma | 1 |
| Urinary System | |
| Kidney | 56 |
| Urinary Bladder | 52 |
| Papilloma | 1 |

* ..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

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Lab: NIEHS

DAY ON TEST

F 344/N Rat Male
92M

ANIMAL ID

*TOTALS

SYSTEMIC LESIONS

| | |
|------------------------|----|
| Multiple Organ | 56 |
| Leukemia Mononuclear | 27 |
| Mesothelioma Malignant | 2 |

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

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CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | |
| | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 5 | 7 | 1 | 1 | 3 | 3 | 4 | 4 | 6 | 6 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 3 | 5 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 3 | 5 | 4 | 1 | 4 | 0 | 1 | 2 | 2 | 9 | 9 | 9 | 0 | 3 | 6 | 6 | 7 | 9 | 6 | 0 | 5 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 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 | 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 |
| | 5 | 0 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 0 | 5 | 3 | 4 | 5 | 3 | 1 | 3 | 0 | 3 | 4 | 5 | 0 | 2 | 2 | 4 | 4 | 2 | 0 |
| | 4 | 3 | 3 | 5 | 5 | 1 | 3 | 7 | 2 | 6 | 7 | 8 | 3 | 1 | 4 | 0 | 2 | 8 | 5 | 6 | 0 | 0 | 8 | 4 | 4 | 7 | 2 | 7 | 9 | 1 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|--|---|---|--|---|---|---|---|---|--|---|---|---|---|--|--|
| Intestine Large, Colon | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |
| Pheochromocytoma Malignant, Metastatic, Adrenal Medulla | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | A | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|--|---|---|--|---|---|---|---|---|--|---|---|---|---|--|
| Heart | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | |
|-------|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|--|---|---|--|---|---|---|---|---|--|---|---|---|---|--|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | A | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |
| Parathyroid Gland | M | M | M | M | + | M | + | + | + | M | + | | + | M | M | M | | + | M | | M | M | + | + | M | M | | + | + | + | M | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | M | + | | + | + | + | + | |
| Pars Distalis, Adenoma | | | | | | X | X | X | | X | X | | X | X | X | | X | | X | | X | | | | | X | | X | | X | | |
| Thyroid Gland | + | M | + | + | + | M | + | + | + | + | + | | + | + | + | + | | + | + | | + | + | + | + | + | | + | + | + | + | | |
| C Cell, Adenoma | | | | | | | | | X | | | | | | | | | X | | X | | X | | | | X | | | | | | |
| Cystadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:29

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | 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 | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 5 | 7 | 1 | 1 | 3 | 3 | 4 | 4 | 6 | 6 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 3 | 5 | 6 | 6 | 7 | 0 | 0 | 0 | 0 |
| | | 9 | 3 | 5 | 4 | 1 | 4 | 0 | 1 | 2 | 2 | 9 | 9 | 0 | 3 | 6 | 6 | 7 | 9 | 6 | 0 | 5 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 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 | 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 |
| | | 5 | 0 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 0 | 5 | 3 | 4 | 5 | 3 | 1 | 3 | 0 | 3 | 4 | 5 | 0 | 2 | 2 | 4 | 4 |
| | | 4 | 3 | 3 | 5 | 5 | 1 | 3 | 7 | 2 | 6 | 7 | 8 | 3 | 1 | 4 | 0 | 2 | 8 | 5 | 6 | 0 | 0 | 8 | 4 | 4 | 2 | 7 | 9 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follicular Cel, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Tubulostromal Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Endometrium, Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus | + | M | + | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | M | M | + | + | M | + | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | + | + | | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:29

First Dose M/F: NA / NA

Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F 344/N Rat Female
07F | DAY ON TEST | 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 |
| | | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 5 | 7 | 1 | 1 | 3 | 3 | 4 | 4 | 6 | 6 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 3 | 5 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 9 | 3 | 5 | 4 | 1 | 4 | 0 | 1 | 2 | 2 | 9 | 9 | 9 | 0 | 3 | 6 | 6 | 7 | 9 | 6 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 6 |
| | | 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 | 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 |
| | | 5 | 0 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 0 | 5 | 3 | 4 | 5 | 3 | 1 | 3 | 0 | 3 | 4 | 5 | 0 | 2 | 2 | 4 | 4 |
| | | 4 | 3 | 3 | 5 | 5 | 1 | 3 | 7 | 2 | 6 | 7 | 8 | 3 | 1 | 4 | 0 | 2 | 8 | 5 | 6 | 0 | 0 | 8 | 4 | 4 | 7 | 2 | 9 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Fibroadenoma | | | | X | X | | | X | X | X | X | X | | X | | X | | | | X | | X | | X | X | | X | X | X |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Skin | | + | | | | | | | | | | | | | | | | | | | | | | | | | | + | |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Subcut Tiss, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | + | | |
| Rib, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | + | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Urinary 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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:29

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | 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 | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 5 | 7 | 1 | 1 | 3 | 3 | 4 | 4 | 6 | 6 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 3 | 5 | 6 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 9 | 3 | 5 | 4 | 1 | 4 | 0 | 1 | 2 | 2 | 9 | 9 | 9 | 0 | 3 | 6 | 6 | 7 | 9 | 6 | 0 | 5 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 6 |
| | 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 | 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 |
| | 5 | 0 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 0 | 5 | 3 | 4 | 5 | 3 | 1 | 3 | 0 | 3 | 4 | 5 | 0 | 2 | 2 | 4 | 4 | 2 | 0 | 1 | |
| | 4 | 3 | 3 | 5 | 5 | 1 | 3 | 7 | 2 | 6 | 7 | 8 | 3 | 1 | 4 | 0 | 2 | 8 | 5 | 6 | 0 | 8 | 4 | 4 | 4 | 7 | 2 | 4 | 7 | 9 | 1 | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Urinary Bladder | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | X | | X | X | X | | | | X | X | X | | |

* ..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: 92004-01
 Test Type: CHRONIC
 Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
 Test Compound: NTP 91/92 diet study
 CAS Number: DIET9192

Date Report Requested: 10/20/2014
 Time Report Requested: 18:17:29
 First Dose M/F: NA / NA
 Lab: NIEHS

F 344/N Rat Female
 07F

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

Follicular Cel, Adenoma

X

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | | | + | + | + | | | + | | | | | | | | | | | | | | | | | | | | | + |
| Adenoma | | | | | | X | X | | | | | | | | X | | | | | | | | | | | | | | | |
| Carcinoma | X | | | | X | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | M | + | + | + | + | |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Tubulostromal Carcinoma | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | | | + | + | + | + | + | + | + | | | M | | | M | + | + | + | + | | | | | | |
| Endometrium, Polyp Stromal | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | | X |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus | M | + | M | M | + | M | + | + | + | M | + | M | + | + | + | | M | + | + | + | + | M | + | + | + | + | + | + | + |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|---|---|--|--|---|---|--|--|--|--|--|--|--|---|---|--|--|--|---|--|--|--|--|--|--|--|---|
| Mammary Gland | | | + | + | | | + | + | | | | | | | | + | + | | | | + | | | | | | | | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:29

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 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 | 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 | 4 | 4 | 4 | 5 | 5 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 5 |
| | 2 | 4 | 6 | 6 | 8 | 9 | 1 | 5 | 1 | 2 | 5 | 7 | 0 | 6 | 9 | 0 | 3 | 5 | 1 | 2 | 3 | 8 | 4 | 6 | 8 |

Adenocarcinoma X

Adenoma

Fibroadenoma X X X X X X X X

Fibroadenoma, Multiple X X

Skin +

Carcinoma, Metastatic, Zymbal'S Gland

Subcut Tiss, Lipoma

Musculoskeletal System

Bone

Rib, Osteosarcoma

Nervous System

NONE

Respiratory System

Lung +

Carcinoma, Metastatic, Zymbal'S Gland

Osteosarcoma, Metastatic, Bone

Special Senses System

Zymbal's Gland

Carcinoma

Urinary 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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:30

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | 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 |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Kidney | | 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 |
| Urinary Bladder | | 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 |
| Adenoma | | 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 | 4 | 4 | 4 | 5 | 5 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 4 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 5 | 5 | 6 | 6 |
| | | 2 | 4 | 6 | 6 | 8 | 9 | 1 | 5 | 1 | 2 | 5 | 7 | 0 | 6 | 9 | 0 | 3 | 5 | 1 | 2 | 3 | 8 | 4 | 6 | 8 | 9 | 0 | 0 |
| | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | X | X | | | X | X | | | X | | | | | | X | X | | | | | | |

* ..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: 92004-01

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Species/Strain: Rat/F 344/N

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CAS Number: DIET9192

Date Report Requested: 10/20/2014

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First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|--|----|
| Intestine Large, Colon | 1 |
| Liver | 56 |
| Pheochromocytoma Malignant, Metastatic,
Adrenal Medulla | 1 |
| Mesentery | 2 |
| Pancreas | 55 |

Cardiovascular System

| | |
|-------|----|
| Heart | 56 |
|-------|----|

Endocrine System

| | |
|---------------------------------------|----|
| Adrenal Cortex | 56 |
| Adrenal Medulla | 55 |
| Bilateral, Pheochromocytoma Malignant | 1 |
| Pheochromocytoma Benign | 3 |
| Islets, Pancreatic | 55 |
| Parathyroid Gland | 36 |
| Pituitary Gland | 55 |
| Pars Distalis, Adenoma | 33 |
| Thyroid Gland | 54 |
| C Cell, Adenoma | 4 |
| Cystadenoma | 1 |
| Follicular Cel, Adenoma | 1 |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

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CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:30

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female
07F

ANIMAL ID

*TOTALS

General Body System

NONE

Genital System

| | |
|-----------------------------|----|
| Clitoral Gland | 7 |
| Adenoma | 3 |
| Carcinoma | 3 |
| Ovary | 55 |
| Granulosa Cell Tumor Benign | 2 |
| Tubulostromal Carcinoma | 1 |
| Uterus | 52 |
| Endometrium, Polyp Stromal | 3 |

Hematopoietic System

| | |
|--------------------------------|----|
| Lymph Node, Mesenteric | 56 |
| Spleen | 56 |
| Thymus | 40 |
| Osteosarcoma, Metastatic, Bone | 1 |
| Thymoma Benign | 1 |

Integumentary System

| | |
|----------------|----|
| Mammary Gland | 29 |
| Adenocarcinoma | 2 |
| Adenoma | 1 |
| Fibroadenoma | 23 |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

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Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:30

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

| ANIMAL ID | *TOTALS |
|---------------------------------------|---------|
| <hr/> | |
| Fibroadenoma, Multiple | 4 |
| Skin | 4 |
| Carcinoma, Metastatic, Zymbal'S Gland | 1 |
| Subcut Tiss, Lipoma | 1 |
| Musculoskeletal System | |
| Bone | 1 |
| Rib, Osteosarcoma | 1 |
| Nervous System | |
| NONE | |
| Respiratory System | |
| Lung | 56 |
| Carcinoma, Metastatic, Zymbal'S Gland | 1 |
| Osteosarcoma, Metastatic, Bone | 1 |
| Special Senses System | |
| Zymbal's Gland | 1 |
| Carcinoma | 1 |
| Urinary System | |
| Kidney | 56 |
| Urinary Bladder | 54 |
| Adenoma | 1 |
| SYSTEMIC LESIONS | |

* ..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: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:17:30
First Dose M/F: NA / NA
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female
07F

ANIMAL ID

*TOTALS

| | |
|-----------------------|----|
| Multiple Organ | 56 |
| Histiocytic Sarcoma | 1 |
| Leukemia Granulocytic | 1 |
| Leukemia Mononuclear | 15 |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

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Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:30

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
91F | DAY ON TEST | 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 | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 0 | 3 | 0 | 3 | 4 | 6 | 7 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 5 | 7 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | ANIMAL ID | 1 | 5 | 6 | 4 | 7 | 8 | 2 | 6 | 0 | 7 | 4 | 5 | 8 | 9 | 1 | 3 | 1 | 8 | 9 | 6 | 1 | 1 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | |
| | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 4 | 5 | 4 | 5 | 6 | 7 | 4 | 6 | 3 | 4 | 6 | 6 | 2 | 3 | 3 | 5 | 5 | 3 | 6 | 7 | 2 | 4 | 4 | 3 | 3 | 6 | 6 | 6 | 8 | 5 | 5 | 9 | 9 | |
| | 4 | 6 | 2 | 8 | 1 | 5 | 0 | 7 | 6 | 9 | 0 | 6 | 6 | 0 | 7 | 1 | 5 | 4 | 4 | 7 | 8 | 7 | 8 | 8 | 9 | 2 | 3 | 5 | 0 | 7 | 7 | 9 | 9 | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | | | + | + | + | + | | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pheochromocytoma Benign | | | | | | | | X | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | M | + | + | + | M | M | + | M | + | M | + | + | + | + | + | M | M | M | + | + | M | + | M | M | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma | | | | | | X | | X | | X | | X | | X | X | | | | | | X | | X | X | X | X | X | | | X | X | X | | | |
| Pars Intermed, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

General Body System

* ..Total animals with tissue examined microscopically; Total animals with tumor
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 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
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CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 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 | | | |
| F 344/N Rat Female
91F | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 0 | 3 | 0 | 3 | 4 | 6 | 7 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 5 | 7 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | ANIMAL ID | 1 | 5 | 6 | 4 | 7 | 8 | 2 | 6 | 0 | 7 | 4 | 5 | 8 | 9 | 1 | 3 | 1 | 8 | 9 | 6 | 1 | 1 | 1 | 2 | 6 | 6 | 6 | 6 | | |
| | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 4 | 5 | 4 | 5 | 6 | 7 | 4 | 6 | 3 | 4 | 6 | 6 | 2 | 3 | 3 | 5 | 5 | 3 | 6 | 7 | 2 | 4 | 4 | 3 | 3 | 6 | 6 | 6 | 8 | 5 | 5 |
| | 4 | 6 | 2 | 8 | 1 | 5 | 0 | 7 | 6 | 9 | 0 | 6 | 6 | 0 | 7 | 1 | 5 | 4 | 4 | 7 | 8 | 7 | 8 | 8 | 9 | 2 | 3 | 5 | 0 | 7 | 9 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Female
91F | DAY ON TEST | 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 |
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 3 | 0 | 3 | 4 | 6 | 7 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 5 | 7 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 5 | 6 | 4 | 7 | 8 | 2 | 6 | 0 | 7 | 4 | 5 | 8 | 9 | 1 | 3 | 1 | 8 | 9 | 6 | 1 | 1 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 4 | 5 | 4 | 5 | 6 | 7 | 4 | 6 | 3 | 4 | 6 | 6 | 2 | 3 | 3 | 5 | 5 | 3 | 6 | 7 | 2 | 4 | 4 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 5 | 5 | 5 | |
| | | 4 | 6 | 2 | 8 | 1 | 5 | 0 | 7 | 6 | 9 | 0 | 6 | 6 | 0 | 7 | 1 | 5 | 4 | 4 | 7 | 8 | 7 | 8 | 8 | 9 | 2 | 3 | 5 | 0 | 7 | 7 | 7 | 7 | 7 | 9 | |

Subcut Tiss, Fibroma

X

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + M + + + + + + M + + M + + + + + + + + + + + +

Alveolar/Bronchiolar Adenoma

Special Senses System

Lacrimal Gland

Adenoma

Urinary System

Kidney

+ + + + + + + + M + + + + + + M + + + + + + + + + + + + + + + +

Urinary Bladder

+ + + + + + + + M + + + + + + M + + + + + + + + + + + + + + + +

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X X X X X X X X X

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:30

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female 91F

Table with columns for DAY ON TEST and ANIMAL ID, containing numerical data for 30 animals across 8 days.

Alimentary System

Table showing results for Alimentary System (Liver, Hepatocellular Adenoma, Mesentery, Pancreas, Stomach, Forestomach, Stomach, Glandular).

Cardiovascular System

Table showing results for Cardiovascular System (Heart).

Endocrine System

Table showing results for Endocrine System (Adrenal Cortex, Adrenal Medulla, Pheochromocytoma Benign, Islets, Pancreatic, Parathyroid Gland, Pituitary Gland, Pars Distalis, Adenoma, Pars Intermed, Adenoma, Thyroid Gland, C Cell, Adenoma).

General Body 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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:31

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| F 344/N Rat Female
91F | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 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 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 9 | 1 | 2 | 3 | 4 | 5 | 7 | 9 | 1 | 2 | 3 | 5 | 1 | 3 | 5 | 6 | 0 |

Subcut Tiss, Fibroma

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ +

Alveolar/Bronchiolar Adenoma

X

Special Senses System

Lacrimal Gland

+

Adenoma

X

Urinary System

Kidney

+ +

Urinary Bladder

+ + + M +

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X X X X X X X X X X

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:31

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

91F

ANIMAL ID

*TOTALS

Alimentary System

| | |
|------------------------|----|
| Liver | 56 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 3 |
| Pancreas | 58 |
| Stomach, Forestomach | 1 |
| Stomach, Glandular | 1 |

Cardiovascular System

| | |
|-------|----|
| Heart | 57 |
|-------|----|

Endocrine System

| | |
|-------------------------|----|
| Adrenal Cortex | 58 |
| Adrenal Medulla | 58 |
| Pheochromocytoma Benign | 2 |
| Islets, Pancreatic | 58 |
| Parathyroid Gland | 40 |
| Pituitary Gland | 57 |
| Pars Distalis, Adenoma | 31 |
| Pars Intermed, Adenoma | 1 |
| Thyroid Gland | 55 |
| C Cell, Adenoma | 1 |

General Body 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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:31

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

91F

ANIMAL ID

***TOTALS**

Genital System

| | |
|-----------------------------|----|
| Clitoral Gland | 5 |
| Adenoma | 3 |
| Squamous Cell Papilloma | 1 |
| Ovary | 57 |
| Granulosa Cell Tumor Benign | 1 |
| Uterus | 57 |
| Endometrium, Polyp Stromal | 5 |
| Sarcoma Stromal | 2 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node, Mesenteric | 58 |
| Spleen | 58 |
| Thymus | 39 |

Integumentary System

| | |
|------------------------|----|
| Mammary Gland | 26 |
| Adenoma | 1 |
| Carcinoma | 1 |
| Fibroadenoma | 20 |
| Fibroadenoma, Multiple | 5 |
| Skin | 2 |
| Subcut Tiss, Fibroma | 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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:31

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Female
91F**

ANIMAL ID

*TOTALS

NONE

Nervous System

NONE

Respiratory System

Lung 57

Alveolar/Bronchiolar Adenoma 1

Special Senses System

Lacrimal Gland 1

Adenoma 1

Urinary System

Kidney 58

Urinary Bladder 56

SYSTEMIC LESIONS

Multiple Organ 58

Leukemia Mononuclear 16

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:31

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
92F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | |
| | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | 8 | 0 | 2 | 3 | 4 | 4 | 7 | 0 | 0 | 1 | 2 | 2 | 6 | 6 | 6 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 4 | 5 | 5 | 1 | 0 | 7 | 2 | 2 | 2 | 7 | 1 | 4 | 0 | 0 | 0 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 6 | 9 | 8 | 4 | 7 | 5 | 8 | 8 | 8 | 7 | 7 | 8 | 5 | 6 | 6 | 5 | 7 | 4 | 4 | 6 | 7 | 6 | 4 | 6 | 6 | 6 | 8 | 8 | 4 | 4 | |
| | 9 | 2 | 5 | 5 | 6 | 4 | 0 | 3 | 4 | 0 | 7 | 9 | 7 | 2 | 8 | 9 | 5 | 1 | 7 | 5 | 3 | 0 | 2 | 1 | 3 | 4 | 1 | 2 | 6 | 8 | 9 |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Tissue Nos | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 92004-01

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:17:31

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female
92F | DAY ON TEST | 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 | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 8 | 8 | 8 | 8 | 9 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 | 0 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 9 | 9 |
| | 0 | 6 | 7 | 8 | 0 | 6 | 8 | 8 | 9 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 1 | 2 | 3 | 5 | 6 | 7 | 1 | 2 | 4 | 1 | 3 | 4 | 5 |

Alimentary System

Intestine Large, Cecum

Liver +

Hepatocellular Adenoma

Mesentery +

Pancreas + + + + + + + + + + + + + + M + + + + + + + + + + + + + + + +

Cardiovascular System

Heart +

Endocrine System

Adrenal Cortex +

Adrenal Medulla + M +

Pheochromocytoma Benign

Islets, Pancreatic + + + + + + + + + + + + + + M + + + + + + + + + + + + + + + +

Parathyroid Gland M M + + + M + + + + + + + + + M M + M + M + + + M M M + +

Pituitary Gland + + + + + + + + + I + + + + + + + + + M + + + + + + + + + +

Pars Distalis, Adenoma X

Thyroid Gland + + + + + + + + + + + + + + + + + + M + + + + + + + + + + + +

C Cell, Adenoma X

C Cell, Carcinoma X

General Body 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: 92004-01
 Test Type: CHRONIC
 Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
 Test Compound: NTP 91/92 diet study
 CAS Number: DIET9192

Date Report Requested: 10/20/2014
 Time Report Requested: 18:17:32
 First Dose M/F: NA / NA
 Lab: NIEHS

**F 344/N Rat Female
 92F**

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Carcinoma, Metastatic, Tissue Nos | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Urinary Bladder | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | X | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | |

* ..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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:32

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Female
92F**

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|------------------------|----|
| Intestine Large, Cecum | 1 |
| Liver | 59 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 2 |
| Pancreas | 57 |

Cardiovascular System

| | |
|-------|----|
| Heart | 59 |
|-------|----|

Endocrine System

| | |
|-------------------------|----|
| Adrenal Cortex | 59 |
| Adrenal Medulla | 58 |
| Pheochromocytoma Benign | 1 |
| Islets, Pancreatic | 57 |
| Parathyroid Gland | 37 |
| Pituitary Gland | 57 |
| Pars Distalis, Adenoma | 27 |
| Thyroid Gland | 56 |
| C Cell, Adenoma | 4 |
| C Cell, Carcinoma | 1 |

General Body 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: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P17: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:32

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

92F

ANIMAL ID

*TOTALS

Genital System

| | |
|----------------------------|----|
| Clitoral Gland | 7 |
| Adenoma | 4 |
| Fibroma | 1 |
| Squamous Cell Papilloma | 2 |
| Ovary | 59 |
| Leiomyoma | 1 |
| Uterus | 59 |
| Endometrium, Polyp Stromal | 5 |

Hematopoietic System

| | |
|-----------------------------------|----|
| Lymph Node, Mesenteric | 59 |
| Spleen | 59 |
| Carcinoma, Metastatic, Tissue Nos | 1 |
| Hemangiosarcoma | 1 |
| Thymus | 40 |

Integumentary System

| | |
|------------------------|----|
| Mammary Gland | 26 |
| Adenocarcinoma | 1 |
| Fibroadenoma | 18 |
| Fibroadenoma, Multiple | 4 |
| Inguinal, Fibroadenoma | 2 |
| Skin | 3 |

* ..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: 92004-01

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CAS Number: DIET9192

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First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Female
92F**

ANIMAL ID

*TOTALS

| | |
|-----------------------------------|----|
| Subcut Tiss, Fibroma | 1 |
| Subcut Tiss, Fibrosarcoma | 1 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| Brain | 1 |
| Respiratory System | |
| Lung | 59 |
| Carcinoma, Metastatic, Tissue Nos | 1 |
| Special Senses System | |
| Eye | 2 |
| Urinary System | |
| Kidney | 59 |
| Sarcoma | 1 |
| Urinary Bladder | 57 |
| SYSTEMIC LESIONS | |
| Multiple Organ | 59 |
| Leukemia Mononuclear | 13 |

**** END OF REPORT ****

* ..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