

Experiment Number: 03038 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Sodium Tungstate Dihydrate
CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
Time Report Requested: 10:13:17
First Dose M/F: 01/30/12 / 01/31/12
Lab: BAT

Final Version 2

NTP Study Number: C03038
Lock Date: 05/25/2016
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

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HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0 6 1 9	0 4 4 5	0 6 9 0	0 6 7 3	0 7 2 9	0 6 4 6	0 7 3 0	0 6 1 5	0 7 2 9	0 6 0 0	0 6 5 2	0 1 8 7	0 7 3 0	0 6 7 6	0 6 6 6	0 7 2 9	0 7 2 9	0 7 2 2	0 5 9 3	0 6 5 2	0 6 4 8	0 7 3 0	0 4 5 6	0 4 5 0	males (cont...)
	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum Adenocarcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cholangioma																										
Hepatocellular Adenoma																										
Leukemia Mononuclear																										
Lymphoma Malignant																										
Mesentery																										
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymphoma Malignant																										
Acinus, Adenocarcinoma																										
Acinus, Adenoma	X		X								X				X					X						
Acinus, Adenoma, Multiple								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

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HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0619	0445	0690	0673	0729	0646	0730	0615	0729	0661	0600	0652	0187	0730	0677	0666	0729	0729	0722	0593	0652	0648	0730	0456	0450	males (cont...)
	ANIMAL ID	000001	000002	000003	000004	000005	000006	000007	000008	000009	000010	000011	000012	000013	000014	000015	000016	000017	000018	000019	000020	000021	000022	000023	000024	000025	
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
CARDIOVASCULAR SYSTEM																											
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ENDOCRINE SYSTEM																											
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear																	X										
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Ganglioneuroma		X																									
Pheochromocytoma Benign		X									X						X		X					X			
Pheochromocytoma Malignant																X											
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																											
Adenoma, Multiple																					X						
Carcinoma																											
Parathyroid Gland		+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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BLANK .. Not examined microscopically

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HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0619	0445	0660	0673	0729	0666	0770	0665	0771	0660	0762	0617	0770	0667	0666	0772	0772	0722	0593	0652	0668	0730	0456	0450	males (cont...)	
	ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024		0025
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4		5
Pars Distalis, Adenoma								X																			
Pars Distalis, Carcinoma						X																					
Pars Intermedia, Adenoma																					X						
Pars Nervosa, Schwannoma Malignant												X															
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C-cell, Adenoma									X			X													X		

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemangiosarcoma																					X				
Testis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Interstitial Cell, Adenoma																									

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node																									

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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0619	0445	0690	0673	0729	0646	0730	0615	0729	0691	0650	0187	0730	0677	0666	0729	0729	0722	0593	0652	0648	0730	0456	0450	males (cont...)
	ANIMAL ID	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
		0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	

[illegible]

Mammary Gland	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Keratoacanthoma																								
Subcutaneous Tissue, Fibroma											X					X			X					

[illegible]

	+ +
Brain Glioma Malignant	

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

Granular Cell Tumor Malignant

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolar/Bronchiolar Adenoma																									
Alveolar/Bronchiolar Carcinoma																									
Leukemia Mononuclear																									

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
---------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Zymbal's Gland																									+
Adenocarcinoma																									X

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Renal Tubule, Adenoma																									

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HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0 6 6 1	0 4 9 3	0 6 3 2	0 6 5 2	0 5 7 1	0 5 0 1	0 6 3 9	0 6 1 4	0 5 5 1	0 6 5 4	0 7 3 0	0 7 3 0	0 5 6 8	0 6 3 5	0 6 5 9	0 5 8 8	0 1 2 9	0 7 2 9	0 7 2 9	0 5 7 4	0 7 3 0	0 4 8 2	0 6 8 2	0 5 7 5	
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9	* TOTALS

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenocarcinoma																										1
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cholangioma																										1
Hepatocellular Adenoma																										1
Leukemia Mononuclear																										1
Lymphoma Malignant					X																					1
Mesentery			+											+												2
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymphoma Malignant					X																					1
Acinus, Adenocarcinoma																										1
Acinus, Adenoma																	X									6
Acinus, Adenoma, Multiple											X				X				X			X				8

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	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9	
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
CARDIOVASCULAR SYSTEM																										
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ENDOCRINE SYSTEM																										
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear																										1
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Ganglioneuroma																										1
Pheochromocytoma Benign				X										X			X					X		X		10
Pheochromocytoma Malignant																			X							2
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma												X														1
Adenoma, Multiple																										1
Carcinoma														X												1
Parathyroid Gland		M	+	+	+	+	+	+	+	+	+	+	+	M	+	+	M	M	+	+	+	+	+	+	+	43
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9			
	Pars Distalis, Adenoma	X						X		X	X					X	X			X								8
	Pars Distalis, Carcinoma																											1
Pars Intermedia, Adenoma																										1		
Pars Nervosa, Schwannoma Malignant																										1		
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
C-cell, Adenoma							X																			4		

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemangiosarcoma																												1
Testis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Interstitial Cell, Adenoma									X																			1

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node			+		+																							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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0 6 6 1	0 4 9 3	0 6 3 2	0 6 5 2	0 5 7 1	0 5 0 1	0 6 3 9	0 6 1 4	0 5 5 1	0 6 5 4	0 7 3 0	0 7 3 0	0 5 6 8	0 6 3 6	0 6 8 5	0 6 5 9	0 5 8 8	0 1 8 9	0 7 2 9	0 7 2 9	0 5 7 4	0 7 3 0	0 4 8 2	0 6 8 2	0 5 7 5	* TOTALS
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9	0 0 0 5 0	
Mediastinal, Lymphoma Malignant						X																					1
Pancreatic, Lymphoma Malignant						X																					1
Lymph Node, Mandibular Lymphoma Malignant		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
						X																					1
Lymph Node, Mesenteric Lymphoma Malignant		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
						X																					1
Spleen Leukemia Mononuclear		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																											1
Thymus		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
INTEGUMENTARY SYSTEM																											
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	48
Skin Keratoacanthoma		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Subcutaneous Tissue, Fibroma																							X				1
																											3
MUSCULOSKELETAL SYSTEM																											
Bone		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
NERVOUS SYSTEM																											
Brain Glioma Malignant		+	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																						X					2

* .. 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0 6 6 1	0 4 9 3	0 6 3 2	0 6 5 2	0 5 7 1	0 5 0 1	0 6 3 9	0 6 1 4	0 5 5 1	0 6 5 4	0 7 3 0	0 7 3 0	0 5 6 8	0 6 3 5	0 6 5 9	0 5 8 8	0 1 8 9	0 7 2 9	0 7 2 9	0 5 7 4	0 7 3 0	0 4 8 2	0 6 8 2	0 5 7 5	* TOTALS
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9	
Granular Cell Tumor Malignant		X																								1
Peripheral Nerve		+																								1
Spinal Cord		+																								1
RESPIRATORY SYSTEM																										
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar/Bronchiolar Adenoma																										1
Alveolar/Bronchiolar Carcinoma		X																								1
Leukemia Mononuclear																										1
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
SPECIAL SENSES SYSTEM																										
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Zymbal's Gland																										1
Adenocarcinoma																										1
URINARY SYSTEM																										
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Renal Tubule, Adenoma		X																								2

* .. 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0mg/L male	DAY ON TEST	0 6 6 1	0 4 9 3	0 6 3 2	0 6 5 2	0 5 7 1	0 5 0 1	0 6 3 9	0 6 1 4	0 5 5 1	0 6 5 4	0 7 3 0	0 7 3 0	0 5 6 8	0 6 3 5	0 6 5 9	0 5 8 8	0 1 2 9	0 7 2 9	0 7 2 9	0 5 7 4	0 7 3 0	0 4 8 2	0 6 8 2	0 5 7 5	* TOTALS	
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9		
	Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+
SYSTEMIC LESIONS																											
Multiple Organ		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear																											1
Lymphoma Malignant						X																					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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 250mg/L male		DAY ON TEST																											males (cont....)
		0 6 6 6	0 6 7 6	0 7 3 0	0 7 3 0	0 3 5 8	0 7 3 0	0 5 8 3	0 4 2 8	0 6 8 3	0 6 0 0	0 6 9 0	0 7 3 0	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 5 8 5	0 7 2 9	0 6 2 1	0 7 3 0	0 6 8 0	0 5 7 6	0 4 6 0	0 7 2 9	0 6 8 7			
ANIMAL ID		0 0 0 5 1	0 0 0 5 2	0 0 0 5 3	0 0 0 5 4	0 0 0 5 5	0 0 0 5 6	0 0 0 5 7	0 0 0 5 8	0 0 0 5 9	0 0 0 6 0	0 0 0 6 1	0 0 0 6 2	0 0 0 6 3	0 0 0 6 4	0 0 0 6 5	0 0 0 6 6	0 0 0 6 7	0 0 0 6 8	0 0 0 6 9	0 0 0 7 0	0 0 0 7 1	0 0 0 7 2	0 0 0 7 3	0 0 0 7 4	0 0 0 7 5			

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver Carcinosarcoma, Metastatic, Zymbal'S Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesentery Paraganglioma										+															+	
Pancreas Acinus, Adenocarcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinus, Adenoma	X												X													
Acinus, Adenoma, Multiple				X		X					X	X			X											
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

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	males (cont....)		
		6	6	7	7	3	3	5	3	8	2	8	0	9	3	2	2	2	8	2	2	3	8	7	6		2	8
HARLAN SPRAGUE DAWLEY RATS MALE 250mg/L male		6	6	0	0	8	0	3	8	3	0	0	0	9	9	9	9	5	9	1	0	0	6	0	0		9	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
		5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	
ANIMAL ID		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		

Stomach, Glandular

+ +

Tongue

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Adrenal Medulla

+ +

Pheochromocytoma Benign

X

X

X

X

X

X

Pheochromocytoma Malignant

X

Islets, Pancreatic

+ +

Adenoma

X

Adenoma, Multiple

Carcinoma

X

Parathyroid Gland

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

Adenoma

X

Pituitary Gland

+ +

Schwannoma Malignant, Metastatic, Peripheral Nerve

Pars Distalis, 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: 03038 - 03

Test Type: CHRONIC

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Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0
6
6
6 | 0
6
7
6 | 0
7
3
0 | 0
7
3
0 | 0
3
5
8 | 0
7
3
0 | 0
5
8
3 | 0
4
2
8 | 0
6
8
3 | 0
6
0
0 | 0
6
9
0 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
5
8
5 | 0
7
2
9 | 0
6
2
1 | 0
7
3
0 | 0
6
8
0 | 0
5
7
6 | 0
4
6
0 | 0
7
2
9 | 0
6
8
7 | males
(cont...) | |
|--|--------------------------|--------------------|---|
| | ANIMAL ID | 0
0
0
5
1 | 0
0
0
5
2 | 0
0
0
5
3 | 0
0
0
5
4 | 0
0
0
5
5 | 0
0
0
5
6 | 0
0
0
5
7 | 0
0
0
5
8 | 0
0
0
5
9 | 0
0
0
6
0 | 0
0
0
6
1 | 0
0
0
6
2 | 0
0
0
6
3 | 0
0
0
6
4 | 0
0
0
6
5 | 0
0
0
6
6 | 0
0
0
6
7 | 0
0
0
6
8 | 0
0
0
6
9 | 0
0
0
7
0 | 0
0
0
7
1 | 0
0
0
7
2 | 0
0
0
7
3 | 0
0
0
7
4 | 0
0
0
7
5 | | |
| | Pars Distalis, Carcinoma | X | | |
| | Thyroid Gland | + | | + |
| C-cell, Adenoma | X | | |
| C-cell, Carcinoma | X | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

Preputial Gland

Prostate

Schwannoma Malignant, Metastatic, Spinal Cord

Seminal Vesicle

Testis

Interstitial Cell, Adenoma

HEMATOPOIETIC SYSTEM

Bone Marrow

Carcinosarcoma, Metastatic, Zymbal'S Gland

Lymph Node

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | | DAY ON TEST | | | males
(cont....) |
|--|--|-------------|--|---------------------|
| | | 0666 | 0676 | 0673 | 0673 | 0635 | 0673 | 0658 | 0642 | 0668 | 0660 | 0669 | 0673 | 0677 | 0672 | 0672 | 0672 | 0658 | 0672 | 0662 | 0663 | 0668 | 0657 | 0646 | 0672 | 0668 | 0676 | 0667 | | |
| ANIMAL ID | | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 | 00061 | 00062 | 00063 | 00064 | 00065 | 00066 | 00067 | 00068 | 00069 | 00070 | 00071 | 00072 | 00073 | 00074 | 00075 | 00076 | 00077 | | |
| | | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 | 00061 | 00062 | 00063 | 00064 | 00065 | 00066 | 00067 | 00068 | 00069 | 00070 | 00071 | 00072 | 00073 | 00074 | 00075 | 00076 | 00077 | | |

males
(cont...)

Lymph Node, Mandibular

+ +

Lymph Node, Mesenteric

+ +

Spleen

+ +

Thymus

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

Thymoma Malignant

X

INTEGUMENTARY SYSTEM

Mammary Gland

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

Fibroadenoma

Skin

+ +

Squamous Cell Papilloma

X

Subcutaneous Tissue, Fibroma

Subcutaneous Tissue, Lipoma

X

Subcutaneous Tissue, Sarcoma

X

Subcutaneous Tissue, Schwannoma

Malignant, Metastatic, Spinal Cord

X

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle

+

NERVOUS SYSTEM

Brain

+ +

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | | | | | | | | | | ANIMAL ID | | | | | | | | | | males
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|------|------|--------------------|--|--|--|--|
| | 0666 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | 0673 | | | | | |
| | 666 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | | | | | |
| | 666 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | | | | | |
| | 666 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | 777 | | | | | |

Cranial Nerve, Schwannoma Malignant

Peripheral Nerve

Spinal Cord

Schwannoma Malignant

RESPIRATORY SYSTEM

Lung

Alveolar/Bronchiolar Adenoma

Carcinosarcoma, Metastatic, Zymbal'S Gland

Nose

Trachea

SPECIAL SENSES SYSTEM

Eye

Schwannoma Malignant, Metastatic, Brain

Harderian Gland

Schwannoma Malignant, Metastatic, Brain

Zymbal's Gland

Carcinosarcoma

URINARY SYSTEM

Kidney

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

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P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0
7
3
0 | 0
6
7
7 | 0
7
2
9 | 0
6
9
4 | 0
7
2
9 | 0
5
5
0 | 0
7
2
9 | 0
6
7
0 | 0
6
7
2 | 0
7
2
9 | 0
7
2
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
7
6 | 0
3
4
8 | 0
5
5
7 | 0
7
3
0 | 0
6
8
5 | 0
1
5
6 | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
7
3
0 | |
|--|-------------|----------|
| | ANIMAL ID | 0
0
0
7
6 | 0
0
0
7
7 | 0
0
0
7
8 | 0
0
0
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0 | * TOTALS |

ALIMENTARY SYSTEM

| | |
|--|----|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | 50 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum | + | 50 |
| Intestine Small, Jejunum | + | 50 |
| Liver | + | 50 |
| Carcinosarcoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Mesentery | + | + | | | | | + | | | | | | | | | | | | | | | | | | | 5 |
| Paranglioma | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | 50 |
| Acinus, Adenocarcinoma | X | | 3 |
| Acinus, Adenoma | | | | | X | | X | | | | | | | | | | | | | X | | | | | | 5 |
| Acinus, Adenoma, Multiple | | | | | | | | | | | X | | X | X | X | | | X | X | | | X | X | X | | 15 |
| Salivary Glands | + | 50 |
| Stomach, Forestomach | + | 50 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0
7
3
0 | 0
6
7
7 | 0
7
2
9 | 0
6
9
4 | 0
7
2
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5 | 0
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0 | * TOTALS | |
|--|-------------|----------|--|
| | ANIMAL ID | 0
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7 | 0
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8 | 0
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0
9
9 | | |
| | | | |
| Stomach, Glandular | | + | 50 | |
| Tongue | | + | | 1 | |
| CARDIOVASCULAR SYSTEM | | | |
| Blood Vessel | | + | 50 | |
| Heart | | + | 50 | |
| ENDOCRINE SYSTEM | | | |
| Adrenal Cortex | | + | 50 | |
| Adrenal Medulla | | + | 50 | |
| Pheochromocytoma Benign | | | | | | | | | X | | | | | | | | | | | | | | | X | | 8 | |
| Pheochromocytoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | 2 | |
| Islets, Pancreatic | | + | 50 | |
| Adenoma | | | | | | | | | | | X | | X | | | | | | | | | | | | | 3 | |
| Adenoma, Multiple | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | |
| Carcinoma | | | | | | | | | | | | X | | | | | | | | | | | | X | | 3 | |
| Parathyroid Gland | | + | M | M | + | 45 | |
| Adenoma | | | 1 | |
| Pituitary Gland | | + | 50 | |
| Schwannoma Malignant, Metastatic, Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | X | | | | | 1 | |
| Pars Distalis, Adenoma | | X | | | | | | X | | X | | | | | | | | | | | | | | X | | 5 | |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0
7
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|--|-------------|----------|-----------------------|--|
| | ANIMAL ID | 0
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| | | | | |
| Pars Distalis, Carcinoma | | X | | 2 | |
| Thyroid Gland | | + | 50 | |
| C-cell, Adenoma | | | X | | X | | 3 | |
| C-cell, Carcinoma | | | 1 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|---|----|
| Epididymis | + | 50 |
| Preputial Gland | + | 50 |
| Prostate | + | 50 |
| Schwannoma Malignant, Metastatic, Spinal Cord | | 1 |
| Seminal Vesicle | + | 50 |
| Testis | + | 50 |
| Interstitial Cell, Adenoma | X | | 1 |

HEMATOPOIETIC SYSTEM

| | |
|--|----|
| Bone Marrow | + | 50 |
| Carcinosarcoma, Metastatic, Zymbal'S Gland | | 1 |
| Lymph Node | | + | + | | 5 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | 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 | * TOTALS |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|----|----------|
| | | 7 | 6 | 7 | 6 | 7 | 5 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 3 | 5 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 7 | 2 | 9 | 2 | 5 | 2 | 7 | 7 | 2 | 2 | 3 | 3 | 3 | 3 | 7 | 4 | 5 | 3 | 8 | 5 | 2 | 2 | 3 | 3 | | |
| | 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 | 1 | | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Thymoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | M | + | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Fibroadenoma | | | | | | | | | | | | X | X | | | | | | | | | | | | | | 2 | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Fibroma | | | X | | | | | | | | | X | | | | | | | | | | | | | | | 2 | |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | X | | | | | | | | | | | 2 | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Schwannoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Malignant, Metastatic, Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| * .. 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

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Date Report Requested: 06/26/2019

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0
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|--|-------------|----------|-----------------------|
| | ANIMAL ID | 0
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| | | | |
| Cranial Nerve, Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Peripheral Nerve | | | | | | | | + | | | | | | | | | | | | | + | | | | | | 3 |
| Spinal Cord | | | 1 |
| Schwannoma Malignant | | | 1 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 50 |
| Alveolar/Bronchiolar Adenoma | | | 1 |
| Carcinosarcoma, Metastatic, Zymbal'S Gland | | | 1 |
| Nose | | | 50 |
| Trachea | | | 50 |
| SPECIAL SENSES SYSTEM | | | |
| Eye | | | 50 |
| Schwannoma Malignant, Metastatic, Brain | | | 1 |
| Harderian Gland | | | 50 |
| Schwannoma Malignant, Metastatic, Brain | | | 1 |
| Zymbal's Gland | | | 1 |
| Carcinosarcoma | | | 1 |
| URINARY SYSTEM | | | |
| Kidney | | | 50 |

* .. 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: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
250mg/L male | DAY ON TEST | 0730 | 0677 | 0629 | 0694 | 0729 | 0550 | 0729 | 0677 | 0672 | 0729 | 0779 | 0733 | 0733 | 0733 | 056 | 0348 | 0570 | 0685 | 0156 | 0729 | 0729 | 0733 | 0730 | * TOTALS | | |
|--|-------------|----------|-------|-------|
| | ANIMAL ID | 00076 | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | | 00099 | 00100 |
| | | | | |
| | | | | |
| Renal Tubule, Adenoma | | 1 | | | |
| Urinary Bladder | | + | 50 | |
| SYSTEMIC LESIONS | | | | |
| Multiple Organ | | + | 50 | |

* .. 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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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | | DAY ON TEST | | 0 | males
(cont...) |
|--|--|-------------|--------------------|
| | | ANIMAL ID | | 6 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 3 | |
| | | 9 | 3 | 8 | 2 | 2 | 2 | 7 | 3 | 3 | 1 | 7 | 7 | 2 | 2 | 3 | 1 | 2 | 3 | 4 | 3 | 6 | 2 | 3 | 7 | 3 | |
| | | 8 | 0 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 9 | 5 | 8 | 9 | 9 | 0 | 3 | 9 | 2 | 2 | 0 | 6 | 5 | 0 | 3 | 0 | |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

ALIMENTARY SYSTEM

| | |
|--|---|
| Esophagus | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum
Leukemia Mononuclear | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum | + |
| Liver
Leukemia Mononuclear
Lymphoma Malignant | + |
| Mesentery | |
| Pancreas
Leukemia Mononuclear
Acinus, Adenoma
Acinus, Adenoma, Multiple | + |
| | X | | | X | X | | | | X | | | | | X | | | | | | | | | | | | | |
| | | X | | | | X | | | | | | | | | | X | | | | | | X | | | | | |
| Salivary Glands | + |

* .. 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: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | 0
6
9
8 | 0
7
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0 | 0
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2 | 0
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| | ANIMAL ID | 0
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9 | 0
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3 | 0
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4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | 0
0
1
2
5 | |
| Stomach, Forestomach | | + |
| Stomach, Glandular
Leukemia Mononuclear | | + | X | + |
| Tongue
Squamous Cell Papilloma | | |
| CARDIOVASCULAR SYSTEM | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Leukemia Mononuclear | | + |
| ENDOCRINE SYSTEM | | |
| Adrenal Cortex
Leukemia Mononuclear | | + |
| Adrenal Medulla
Leukemia Mononuclear | | + |
| Pheochromocytoma Benign | | |
| Pheochromocytoma Malignant | | |
| Bilateral, Pheochromocytoma Benign | | |
| Islets, Pancreatic
Adenoma | | + |
| Adenoma, Multiple | | |
| Carcinoma | | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | | 0
6
9
8 | 0
7
3
0 | 0
6
8
2 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
4
7
7 | 0
7
3
0 | 0
7
3
0 | 0
7
1
9 | 0
5
7
5 | 0
5
7
8 | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
7
1
3 | 0
7
2
9 | 0
6
3
2 | 0
6
4
2 | 0
7
3
0 | 0
6
6
6 | 0
7
2
5 | 0
7
3
0 | 0
6
7
3 | 0
7
3
0 | males
(cont...) |
|--|-------------|--|-----------------------|--------------------|
| | ANIMAL ID | | 0
0
1
0
1 | 0
0
1
0
2 | 0
0
1
0
3 | 0
0
1
0
4 | 0
0
1
0
5 | 0
0
1
0
6 | 0
0
1
0
7 | 0
0
1
0
8 | 0
0
1
0
9 | 0
0
1
1
0 | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | 0
0
1
2
5 | |
| Parathyroid Gland | | | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + |
| Pituitary Gland | | | + | + |
| Leukemia Mononuclear | | | | X | |
| Pars Distalis, Adenoma | | | | | | | | | | X | | | | X | | | X | | | | | | | | | | | |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Pars Intermedia, Carcinoma | | | | |
| Thyroid Gland | | | + | + |
| C-cell, Adenoma | | | X | | | | | | | | | | | | | | | X | | | | | | | | | | |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | X | | | | | X | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| |
|-----------------|
| Epididymis | + |
| Penis | | | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| Preputial Gland | + |
| Prostate | + |
| Seminal Vesicle | + |
| Testis | + |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | | DAY ON TEST | | 0 | males
(cont...) |
|--|--|-------------|--------------------|
| | | ANIMAL ID | | 6 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 3 | |
| | | 9 | 3 | 8 | 2 | 2 | 2 | 7 | 3 | 3 | 1 | 7 | 7 | 2 | 2 | 3 | 1 | 2 | 3 | 4 | 3 | 6 | 2 | 3 | 7 | 3 | |
| | | 8 | 0 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 9 | 5 | 8 | 9 | 9 | 0 | 3 | 9 | 2 | 2 | 0 | 6 | 5 | 0 | 3 | 0 | |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

HEMATOPOIETIC SYSTEM

| |
|--------------------------------------|
| Bone Marrow | + |
| Leukemia Mononuclear | X |
| Lymph Node | | | | | | + | | + |
| Mediastinal, Leukemia Mononuclear | X |
| Lymph Node, Mandibular | + |
| Carcinoma, Metastatic, Thyroid Gland | |
| Leukemia Mononuclear | X |
| Lymph Node, Mesenteric | + |
| Leukemia Mononuclear | X |
| Spleen | + |
| Leukemia Mononuclear | X |
| Lymphoma Malignant |
| Thymus | + |
| Carcinoma, Metastatic, Thyroid Gland | |
| Leukemia Mononuclear | X |

INTEGUMENTARY SYSTEM

| |
|---------------|
| Mammary Gland | + |
| Fibroadenoma | |
| Skin | + |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | | DAY ON TEST | | 0 | males
(cont...) |
|--|--|-------------|--------------------|
| | | ANIMAL ID | | 6 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 3 | |
| | | 9 | 3 | 8 | 2 | 2 | 2 | 7 | 3 | 3 | 1 | 7 | 7 | 2 | 2 | 3 | 1 | 2 | 3 | 4 | 3 | 6 | 2 | 3 | 7 | 3 | |
| | | 8 | 0 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 9 | 5 | 8 | 9 | 9 | 0 | 3 | 9 | 2 | 2 | 0 | 6 | 5 | 0 | 3 | 0 | |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

Subcutaneous Tissue, Carcinoma, Metastatic,
Thyroid Gland

Subcutaneous Tissue, Fibroma

Subcutaneous Tissue, Schwannoma Malignant

X

X

MUSCULOSKELETAL SYSTEM

Bone

+ +

NERVOUS SYSTEM

Brain

Leukemia Mononuclear

Cranial Nerve, Schwannoma Malignant

+
X
X

RESPIRATORY SYSTEM

Lung

Carcinoma, Metastatic, Thyroid Gland

Leukemia Mononuclear

+
X

Nose

+ +

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye

+ +

Harderian Gland

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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | 0
6
0
3 | 0
7
3
0 | 0
3
7
3 | 0
6
8
8 | 0
7
2
9 | 0
7
2
9 | 0
6
0
5 | 0
6
4
8 | 0
3
1
3 | 0
7
2
2 | 0
7
2
9 | 0
7
2
9 | 0
6
2
7 | 0
7
3
0 | 0
6
1
1 | 0
5
1
7 | 0
6
4
6 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
4
9
1 | 0
7
1
7 | 0
7
3
0 | 0
6
9
4 | 0
7
2
9 | |
|--|-------------|-----------------|
| | ANIMAL ID | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | 0
0
1
5
0 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | |
|--|--------------------|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | + | M | + | 49 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum
Leukemia Mononuclear | + | 50
1 |
| Intestine Small, Ileum | + | + | M | + | 49 |
| Intestine Small, Jejunum | + | 50 |
| Liver
Leukemia Mononuclear
Lymphoma Malignant | + | | X | + | + | + | 50
2
1 |
| Mesentery | | + | | | 2 |
| Pancreas
Leukemia Mononuclear
Acinus, Adenoma
Acinus, Adenoma, Multiple | + | | X | + | + | + | 50
2
5
15 |
| Salivary Glands | + | 50 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | 06033 | 07378 | 08688 | 07229 | 07229 | 06055 | 06488 | 03132 | 07229 | 07229 | 07229 | 06770 | 07611 | 05177 | 06466 | 07330 | 07330 | 07330 | 04911 | 07177 | 07330 | 06770 | 07330 | 06770 | 07229 | * TOTALS |
|--|-------------|----------|
| | ANIMAL ID | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 | |
| Stomach, Forestomach | | + | 50 |
| Stomach, Glandular
Leukemia Mononuclear | | + | 50
1 |
| Tongue
Squamous Cell Papilloma | | 1
1 |
| CARDIOVASCULAR SYSTEM | | |
| Blood Vessel | | + | 49 |
| Heart
Leukemia Mononuclear | | + | 50
1 |
| ENDOCRINE SYSTEM | | |
| Adrenal Cortex
Leukemia Mononuclear | | + | 50
2 |
| Adrenal Medulla
Leukemia Mononuclear | | + | 50
1 |
| Pheochromocytoma Benign | | | X | | | | | | | | X | | | | X | | X | X | | | | | X | | | | 11 |
| Pheochromocytoma Malignant | | | X | | 2 |
| Bilateral, Pheochromocytoma Benign | | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic
Adenoma | | + | 50
2 |
| Adenoma, Multiple | | 1 |
| Carcinoma | | | X | | | X | | | | | | | X | | | | | | | | | | | | | | 4 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | 0
0
3 | 0
7
3 | 0
3
3 | 0
6
8 | 0
7
2 | 0
7
2 | 0
6
0 | 0
6
4 | 0
3
1 | 0
7
2 | 0
7
2 | 0
7
2 | 0
6
2 | 0
7
3 | 0
6
1 | 0
5
7 | 0
6
4 | 0
7
3 | 0
7
3 | 0
7
3 | 0
4
9 | 0
7
1 | 0
7
3 | 0
6
9 | 0
7
2 | * TOTALS |
|--|-------------|-------------|----------|
| | ANIMAL ID | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | | |
| | | | |
| Parathyroid Gland | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 45 |
| Pituitary Gland | | + | 50 |
| Leukemia Mononuclear | | | X | | | | 2 |
| Pars Distalis, Adenoma | | | X | | X | | 5 |
| Pars Distalis, Carcinoma | | | 1 |
| Pars Intermedia, Carcinoma | | | X | | 1 |
| Thyroid Gland | | + | 50 |
| C-cell, Adenoma | | | | | | | | | X | | | | | | | | | | X | | | | | | X | | 5 |
| C-cell, Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | X | | 4 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|-----------------|-----------|
| Epididymis | + | 50 |
| Penis | 1 |
| Preputial Gland | + | 50 |
| Prostate | + | 50 |
| Seminal Vesicle | + | 50 |
| Testis | + | 50 |

* .. 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

Lab: BAT

| | |
|--|----------|
| <div> <div>DAY ON TEST</div> <div>HARLAN SPRAGUE DAWLEY RATS MALE</div> <div>500mg/L male</div> </div> | 063 | 073 | 038 | 068 | 079 | 079 | 065 | 068 | 033 | 072 | 079 | 079 | 067 | 073 | 061 | 057 | 064 | 070 | 073 | 074 | 049 | 071 | 073 | 069 | 072 | 079 | * TOTALS |
| | 001 | 001 | 001 | 000 | 001 | 000 | |
| | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | |

HEMATOPOIETIC SYSTEM

[illegible]

INTEGUMENTARY SYSTEM

[illegible]

BLANK .. Not examined microscopically

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
500mg/L male | DAY ON TEST | 0
6
0
3 | 0
7
3
0 | 0
3
7
3 | 0
6
8
8 | 0
7
2
9 | 0
7
2
9 | 0
6
0
5 | 0
6
4
8 | 0
3
1
3 | 0
7
2
2 | 0
7
2
9 | 0
7
2
9 | 0
6
2
7 | 0
7
3
0 | 0
6
1
1 | 0
5
1
7 | 0
6
4
6 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
4
9
1 | 0
7
1
7 | 0
7
3
0 | 0
6
9
4 | 0
7
2
9 | * TOTALS |
|--|-------------|------------------|----------|
| | ANIMAL ID | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | | |
| | | | |
| Subcutaneous Tissue, Carcinoma, Metastatic,
Thyroid Gland | | | X | 1 |
| Subcutaneous Tissue, Fibroma | | | 2 |
| Subcutaneous Tissue, Schwannoma Malignant | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | |
| Bone | | | + | 50 |
| NERVOUS SYSTEM | | | |
| Brain | | | + | 50 |
| Leukemia Mononuclear | | | X | | 2 |
| Cranial Nerve, Schwannoma Malignant | | | 1 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | + | 50 |
| Carcinoma, Metastatic, Thyroid Gland | | | X | | 1 |
| Leukemia Mononuclear | | | X | | | 2 |
| Nose | | | + | 50 |
| Trachea | | | + | 50 |
| SPECIAL SENSES SYSTEM | | | |
| Eye | | | + | 50 |
| Harderian Gland | | | + | 50 |
| Leukemia Mononuclear | | | X | | | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | | DAY ON TEST | | | | | males
(cont...) |
|---|--|-----------------------|--|--|--|--------------------|
| | | 0
6
8
2 | 0
6
7
3 | 0
3
5
1 | 0
7
3
0 | 0
7
2
9 | 0
6
1
7 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
6
0
2 | 0
7
3
0 | 0
7
2
9 | 0
4
6
7 | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
6
1
0 | 0
7
2
9 | 0
5
8
1 | 0
6
1
3 | 0
7
2
9 | | | | | |
| ANIMAL ID | | 0
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2 | 0
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3 | 0
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1
7
4 | 0
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7
5 | | | | |

ALIMENTARY SYSTEM

| | |
|---|---|
| Esophagus | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon
Lymphoma Malignant | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum
Lymphoma Malignant | + |
| Intestine Small, Jejunum
Lymphoma Malignant | + |
| Liver
Hepatocellular Adenoma
Lymphoma Malignant | + |
| Mesentery
Pheochromocytoma Malignant, Metastatic,
Adrenal Medulla | | | | | + | |
| Pancreas
Lymphoma Malignant
Acinus, Adenocarcinoma | + |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | | DAY ON TEST | | | | | males
(cont...) |
|---|--|-----------------------|--|--|--|--------------------|
| | | 0
6
8
2 | 0
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7
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7 | 0
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9 | 0
4
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7 | 0
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| ANIMAL ID | | 0
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1
7
5 | | | | |

Acinus, Adenocarcinoma, Multiple

X

Acinus, Adenoma

X

X

Acinus, Adenoma, Multiple

X

X

X

X

X

Salivary Glands

+

+

+

+

+

+

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Stomach, Forestomach

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Squamous Cell Papilloma

X

Stomach, Glandular

+

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CARDIOVASCULAR SYSTEM

Blood Vessel

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Schwannoma Malignant

ENDOCRINE SYSTEM

Adrenal Cortex

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Adenoma

X

Lymphoma Malignant

Adrenal Medulla

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Pheochromocytoma Benign

X

X

X

X

X

X

Pheochromocytoma Complex

X

Pheochromocytoma Malignant

X

Islets, Pancreatic

+

+

+

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+

+

Adenoma

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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | | DAY ON TEST | | ANIMAL ID | males
(cont...) |
|---|--|-------------|-----------|--------------------|
| | | 0682 | 0673 | 0351 | 0730 | 0729 | 0617 | 0733 | 0733 | 0730 | 0730 | 0602 | 0732 | 0729 | 0467 | 0722 | 0722 | 0733 | 0733 | 0722 | 0722 | 0610 | 0729 | 0581 | 0613 | | |
| | | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | 00160 | 00161 | 00162 | 00163 | 00164 | 00165 | 00166 | 00167 | 00168 | 00169 | 00170 | 00171 | 00172 | 00173 | 00174 | 00175 | |

males
(cont...)

Adenoma, Multiple

X

Parathyroid Gland
Adenoma

+ + + + + + + + M + + + + + M + + M + + + + + +
X X

Pituitary Gland
Pars Distalis, Adenoma
Pars Intermedia, Adenoma

+
X X X X X X X

Thyroid Gland
C-cell, Adenoma
C-cell, Adenoma, Multiple
C-cell, Carcinoma

+
X

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

+ +

Preputial Gland

+ +

Prostate
Lymphoma Malignant

+ +

Seminal Vesicle
Lymphoma Malignant

+ +

Testis

+ +

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | | DAY ON TEST | | | | | males
(cont...) |
|---|--|-----------------------|--|--|--|--------------------|
| | | 0
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Lymphoma Malignant

HEMATOPOIETIC SYSTEM

Bone Marrow
Lymphoma Malignant

+ +

Lymph Node

+ +

Lymph Node, Mandibular
Lymphoma Malignant

+ +

Lymph Node, Mesenteric
Lymphoma Malignant

+ +

Spleen
Lymphoma Malignant

+ +

Thymus
Lymphoma Malignant

+ +

INTEGUMENTARY SYSTEM

Mammary Gland
Adenocarcinoma

+ +

Skin
Basal Cell Carcinoma
Keratoacanthoma
Subcutaneous Tissue, Fibroma+ + + + + + + + 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

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 Sodium Tungstate Dihydrate
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Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | | DAY ON TEST | | | | | males
(cont...) |
|---|--|-------------|--|--|--|--------------------|
| | | 0682 | 0673 | 0351 | 0730 | 0729 | 0617 | 0730 | 0733 | 0733 | 0730 | 0622 | 0730 | 0729 | 0476 | 0729 | 0729 | 0730 | 0730 | 0729 | 0729 | 0610 | 0729 | 0581 | 0613 | 0729 | | | | |
| ANIMAL ID | | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | 00160 | 00161 | 00162 | 00163 | 00164 | 00165 | 00166 | 00167 | 00168 | 00169 | 00170 | 00171 | 00172 | 00173 | 00174 | 00175 | | | | |

Subcutaneous Tissue, Lipoma X

MUSCULOSKELETAL SYSTEM

Bone +
 Tarsal, Osteoma X

NERVOUS SYSTEM

Brain +
 Glioma Malignant
 Lymphoma Malignant
 Oligodendroglioma Malignant

RESPIRATORY SYSTEM

Lung +
 Alveolar/Bronchiolar Adenoma
 Alveolar/Bronchiolar Carcinoma X
 Lymphoma Malignant
 Nose +
 Trachea +

SPECIAL SENSES SYSTEM

Eye +
 Harderian Gland +

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

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P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

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Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | DAY ON TEST | | males
(cont...) |
|---|-----------------------|--------------------|
| | 0
6
8
2 | 0
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9 | |
| ANIMAL ID | 0
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5 | |

URINARY SYSTEM

| |
|-----------------------|
| Kidney | + |
| Lymphoma Malignant |
| Oncocytoma Benign | X | |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Urinary Bladder | + |

SYSTEMIC LESIONS

| |
|--------------------|
| Multiple Organ | + |
| Lymphoma 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: 03038 - 03

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Route: DOSED WATER

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | DAY ON TEST | 0
5
8
8 | 0
3
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9 | 0
6
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6 | 0
7
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| | ANIMAL ID | 0
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7 | 0
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2
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0 | * TOTALS |

ALIMENTARY SYSTEM

| | |
|---|--------------|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | 50 |
| Intestine Large, Colon
Lymphoma Malignant | + | X | 50
1 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum
Lymphoma Malignant | + | X | 50
1 |
| Intestine Small, Jejunum
Lymphoma Malignant | + | X | 50
1 |
| Liver
Hepatocellular Adenoma
Lymphoma Malignant | + | 50
1
2 |
| Mesentery
Pheochromocytoma Malignant, Metastatic,
Adrenal Medulla | | | | | | | | | | | | | | + | X | | | | | | | | + | | | 3
1 |
| Pancreas
Lymphoma Malignant
Acinus, Adenocarcinoma | + | 50
1
2 |

* .. 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

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | DAY ON TEST | 0
5
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|---|-------------|----------|-----------------------|--|
| | ANIMAL ID | 0
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| | | | | |
| Acinus, Adenocarcinoma, Multiple | | | 1 | | |
| Acinus, Adenoma | | | | X | | X | | | | X | | | | | | | | | | | | | | | 5 | | |
| Acinus, Adenoma, Multiple | | | | | | | | X | X | | | | X | | | | | | X | X | | X | | | 11 | | |
| Salivary Glands | | + | 50 | | |
| Stomach, Forestomach | | + | 50 | | |
| Squamous Cell Papilloma | | | 1 | | |
| Stomach, Glandular | | + | 50 | | |
| CARDIOVASCULAR SYSTEM | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | | | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Heart | | + | 50 | | |
| Schwannoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | | + | 50 | | |
| Adenoma | | | 1 | | |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | | | X | | 2 | | |
| Adrenal Medulla | | + | 50 | | |
| Pheochromocytoma Benign | | | | | | X | | | | | | | | | | X | | | | | | | | | 8 | | |
| Pheochromocytoma Complex | | | 1 | | |
| Pheochromocytoma Malignant | | | | | | | | | | | X | | | | X | | | | | | | | | | 3 | | |
| Islets, Pancreatic | | + | 50 | | |
| Adenoma | | | | | | | | | X | X | | | | | | | | | | | | | | | 5 | | |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | DAY ON TEST | 0
5
8
8 | 0
3
2
9 | 0
6
1
6 | 0
7
2
9 | 0
6
6
6 | 0
7
3
0 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
6
7
9 | 0
0
4 | 0
7
3
0 | 0
7
3
0 | 0
5
6
6 | 0
6
1
6 | 0
4
3
6 | 0
7
3
0 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
6
9
7 | 0
6
5
2 | 0
6
8
5 | * TOTALS |
|--|------------------------------|-------------------|
| | ANIMAL ID | 0
0
1
7
6 | 0
0
1
7
7 | 0
0
1
7
8 | 0
0
1
7
9 | 0
0
1
8
0 | 0
0
1
8
1 | 0
0
1
8
2 | 0
0
1
8
3 | 0
0
1
8
4 | 0
0
1
8
5 | 0
0
1
8
6 | 0
0
1
8
7 | 0
0
1
8
8 | 0
0
1
8
9 | 0
0
1
9
0 | 0
0
1
9
1 | 0
0
1
9
2 | 0
0
1
9
3 | 0
0
1
9
4 | 0
0
1
9
5 | 0
0
1
9
6 | 0
0
1
9
7 | 0
0
1
9
8 | 0
0
1
9
9 | 0
0
2
0
0 | |
| | Adenoma, Multiple | 1 | |
| | Parathyroid Gland
Adenoma | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | |
| Pituitary Gland
Pars Distalis, Adenoma
Pars Intermedia, Adenoma | + | + | 50
7
1 |
| Thyroid Gland
C-cell, Adenoma
C-cell, Adenoma, Multiple
C-cell, Carcinoma | + | + | 50
5
1
3 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|--------------------|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 49 |
| Preputial Gland | + | 50 |
| Prostate | + | 50 |
| Lymphoma Malignant | | X | | 1 |
| Seminal Vesicle | + | 50 |
| Lymphoma Malignant | | X | | 1 |
| Testis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 49 |

* .. 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

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| | | | |
|--|-------|------|--|
| DAY ON TEST

HARLAN SPRAGUE DAWLEY RATS
MALE

1000mg/L male | 0588 | 0329 | 0616 | 0729 | 0666 | 0730 | 0770 | 0779 | 0779 | 0779 | 0679 | 0049 | 0073 | 0073 | 0566 | 0616 | 0436 | 0730 | 0730 | 0779 | 0779 | 0730 | 0730 | 0697 | 0652 | 0685 | |
| | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | 00200 | | |
| | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| * TOTALS | | |
| Lymphoma Malignant | | |
| X | | | |
| 1 | | | |

HEMATOPOIETIC SYSTEM

[illegible]

INTEGUMENTARY SYSTEM

[illegible]

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
MALE
1000mg/L male | DAY ON TEST | | * TOTALS | |
|---|-------------|----------|------|
| | 0588 | 0329 | 0616 | 0729 | 0666 | 0770 | 0773 | 0779 | 0779 | 0779 | 0679 | 0040 | 0730 | 0730 | 0566 | 0616 | 0436 | 0730 | 0730 | 0729 | 0729 | 0730 | 0697 | 0652 | | 0685 |
| | | | |
| | | | |
| ANIMAL ID | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | 00200 | |

Subcutaneous Tissue, Lipoma

X

2

MUSCULOSKELETAL SYSTEM

Bone

+ +

50

Tarsal, Osteoma

1

NERVOUS SYSTEM

Brain

+ +

50

Glioma Malignant

X

1

Lymphoma Malignant

1

Oligodendroglioma Malignant

X

1

RESPIRATORY SYSTEM

Lung

+ +

50

Alveolar/Bronchiolar Adenoma

X

1

Alveolar/Bronchiolar Carcinoma

1

Lymphoma Malignant

X

X

2

Nose

+ +

50

Trachea

+ +

50

SPECIAL SENSES SYSTEM

Eye

+ +

50

Harderian Gland

+ +

50

* .. 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

Lab: BAT

| | |
|---|----------|
| <div> <div>DAY ON TEST</div> <div>HARLAN SPRAGUE DAWLEY RATS MALE</div> <div>1000mg/L male</div> </div> | 0588 | 0329 | 0616 | 0729 | 0636 | 0730 | 0779 | 0779 | 0729 | 0729 | 0679 | 004 | 0730 | 0730 | 0566 | 0616 | 0436 | 0730 | 0730 | 0729 | 0729 | 0730 | 0697 | 0695 | 0685 | * TOTALS |
| | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | 00200 | |
| | 001 | |
| | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | |

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | | DAY ON TEST | | 0 | females
(cont...) | | |
|--|--|-------------|----------------------|---|---|
| | | ANIMAL ID | | 6 | 7 | 2 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 3 | 3 | 7 | 7 | | 6 | |
| | | | | 9 | 0 | 8 | 5 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 5 | 3 | 3 | 3 | 3 | 1 | 3 | 8 | 3 | 4 | 3 | 3 | | 2 | 4 |
| | | | | 5 | 8 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 2 | 4 | 2 | | 2 | 4 |
| | | 0 | 0 | | | |
| | | 0 | 0 | | | |
| | | 2 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | |

ALIMENTARY SYSTEM

| | |
|---|---|
| Esophagus | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small | | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum | + |
| Liver | + |
| Hepatocellular Adenoma | X | | | | | | |
| Lymphoma Malignant | X | | X |
| Mesentery | |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | |
| Pancreas | + |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | |

* .. 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | 0
6
9
5 | 0
7
0
8 | 0
2
8
6 | 0
6
5
2 | 0
7
3
1 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
1 | 0
5
0
2 | 0
5
5
0 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
3
8
7 | 0
7
3
2 | 0
3
4
4 | 0
7
3
2 | 0
7
3
2 | 0
6
2
4 | females
(cont...) |
|--|-------------|----------------------|
| | ANIMAL ID | 0
0
2
0
1 | 0
0
2
0
2 | 0
0
2
0
3 | 0
0
2
0
4 | 0
0
2
0
5 | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
0
0 | 0
0
2
1
1 | 0
0
2
1
2 | 0
0
2
1
3 | 0
0
2
1
4 | 0
0
2
1
5 | 0
0
2
1
6 | 0
0
2
1
7 | 0
0
2
1
8 | 0
0
2
1
9 | 0
0
2
2
0 | 0
0
2
2
1 | 0
0
2
2
2 | 0
0
2
2
3 | 0
0
2
2
4 | |
| Salivary Glands | | + |
| Stomach, Forestomach | | + |
| Stomach, Glandular | | + |
| CARDIOVASCULAR SYSTEM | | |
| Blood Vessel | | + |
| Heart | | + |
| Schwannoma Malignant | | | | X | |
| ENDOCRINE SYSTEM | | |
| Adrenal Cortex | | + |
| Lymphoma Malignant | | X | |
| Adrenal Medulla | | + |
| Pheochromocytoma Benign | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Islets, Pancreatic | | + |
| Adenoma | | |
| Carcinoma | | |
| Parathyroid Gland | | M | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | | + |
| Pars Distalis, Adenoma | | | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | | females
(cont...) |
|--|-------------|----------------------|
| | 0695 | 0708 | 0286 | 0652 | 0731 | 0770 | 0777 | |
| ANIMAL ID | 00201 | 00202 | 00203 | 00204 | 00205 | 00206 | 00207 | 00208 | 00209 | 00210 | 00211 | 00212 | 00213 | 00214 | 00215 | 00216 | 00217 | 00218 | 00219 | 00220 | 00221 | 00222 | 00223 | 00224 | 00225 | 00226 | 00227 | 00228 | |

Pars Distalis, Carcinoma

Thyroid Gland

Bilateral, C-cell, Adenoma

C-cell, Adenoma

C-cell, Carcinoma

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland

Ovary

Granulosa Cell Tumor Malignant

Granulosa-Theca Tumor Malignant

Uterus

Adenocarcinoma

Granulosa Cell Tumor Malignant, Metastatic,
Ovary

Lymphoma Malignant

Squamous Cell Carcinoma

Cervix, Sarcoma Stromal

Cervix, Squamous Cell Carcinoma

Cervix, Endometrium, Polyp Stromal

Endometrium, Polyp Stromal

Endometrium, Polyp Stromal, Multiple

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | | DAY ON TEST | | 0 | females
(cont...) | | |
|--|--|-------------|----------------------|---|---|
| | | ANIMAL ID | | 6 | 7 | 2 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 3 | 3 | 7 | 7 | | 6 | |
| | | | | 9 | 0 | 8 | 5 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 5 | 3 | 3 | 3 | 3 | 1 | 3 | 8 | 3 | 4 | 3 | 3 | | 2 | 4 |
| | | | | 5 | 8 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 2 | 4 | 2 | | 2 | 4 |
| | | 0 | 0 | | | |
| | | 0 | 0 | | | |
| | | 2 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | |

Vagina
Polyp

| | |
|---|--|
| + | |
| | | | | | | | | | | | | | | | X | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

Bone Marrow
Lymphoma Malignant

| |
|---|
| + | |
| | X |

Lymph Node
Mediastinal, Lymphoma Malignant
Pancreatic, Lymphoma Malignant

| | |
|---|---|
| + | + |
| X | X |

Lymph Node, Mandibular
Lymphoma Malignant

| | |
|---|--|
| + | |
| X | |

Lymph Node, Mesenteric
Lymphoma Malignant

| |
|---|
| + | |
| X | | X |

Spleen
Lymphoma Malignant

| |
|---|
| + | |
| X | | X |

Thymus

| | |
|---|--|
| + | |
|---|--|

INTEGUMENTARY SYSTEM

Mammary Gland
Adenocarcinoma
Adenoma
Fibroadenoma
Fibroadenoma, Multiple

| |
|---|
| + | |
| |
| |
| X | X | | | X | | X | | X | X | X | | 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

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT[illegible]

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
5
6
7 | 0
7
3
0 | 0
7
3
0 | 0
6
7
6 | 0
7
3
0 | 0
7
3
1 | 0
6
7
1 | 0
7
3
1 | 0
7
3
1 | 0
6
7
1 | 0
6
7
1 | 0
5
2
3 | 0
7
3
1 | 0
6
7
6 | 0
5
0
4 | 0
7
3
0 | 0
4
9
4 | 0
7
3
0 | |
|--|-------------|-----------------------|
| | ANIMAL ID | 0
0
2
2
6 | 0
0
2
2
7 | 0
0
2
2
8 | 0
0
2
2
9 | 0
0
2
3
0 | 0
0
2
3
1 | 0
0
2
3
2 | 0
0
2
3
3 | 0
0
2
3
4 | 0
0
2
3
5 | 0
0
2
3
6 | 0
0
2
3
7 | 0
0
2
3
8 | 0
0
2
3
9 | 0
0
2
4
0 | 0
0
2
4
1 | 0
0
2
4
2 | 0
0
2
4
3 | 0
0
2
4
4 | 0
0
2
4
5 | 0
0
2
4
6 | 0
0
2
4
7 | 0
0
2
4
8 | 0
0
2
4
9 |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | |
|---|----|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | 50 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small | 1 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum | + | 50 |
| Intestine Small, Jejunum | + | 50 |
| Liver | + | 50 |
| Hepatocellular Adenoma | 1 |
| Lymphoma Malignant | 2 |
| Mesentery | | 1 |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | | 1 |
| Pancreas | + | 50 |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | | 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
5
6
7 | 0
7
3
0 | 0
7
3
0 | 0
6
7
6 | 0
7
3
0 | 0
7
3
1 | 0
6
7
1 | 0
7
3
1 | 0
7
3
1 | 0
6
1
0 | 0
6
1
2 | 0
5
2
3 | 0
7
3
1 | 0
6
7
6 | 0
5
0
4 | 0
7
3
0 | 0
4
9
4 | 0
7
3
0 | * TOTALS | |
|--|-------------|----------|-----------------------|
| | ANIMAL ID | 0
0
2
2
6 | 0
0
2
2
7 | 0
0
2
2
8 | 0
0
2
2
9 | 0
0
2
2
0 | 0
0
2
2
1 | 0
0
2
2
2 | 0
0
2
2
3 | 0
0
2
2
3 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
4 | 0
0
2
2
5 | | 0
0
2
2
0 |
| | | | |
| Salivary Glands | | + | 50 |
| Stomach, Forestomach | | + | 50 |
| Stomach, Glandular | | + | 50 |
| CARDIOVASCULAR SYSTEM | | | |
| Blood Vessel | | + | 50 |
| Heart | | + | 50 |
| Schwannoma Malignant | | | | | | | | | | | | | | | | | | X | | | | | | | | 2 |
| ENDOCRINE SYSTEM | | | |
| Adrenal Cortex | | + | 50 |
| Lymphoma Malignant | | | 1 |
| Adrenal Medulla | | + | 50 |
| Pheochromocytoma Benign | | | 1 |
| Pheochromocytoma Malignant | | | 1 |
| Islets, Pancreatic | | + | 50 |
| Adenoma | | X | | 1 |
| Carcinoma | | | | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Parathyroid Gland | | + | + | M | + | 46 |
| Pituitary Gland | | + | 50 |
| Pars Distalis, Adenoma | | | | | | X | | | | X | X | | | X | X | | | | | | | | | | | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
5
6
7 | 0
7
3
0 | 0
7
3
0 | 0
6
7
6 | 0
7
3
0 | 0
6
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
6
1
0 | 0
6
1
2 | 0
5
2
3 | 0
7
3
1 | 0
6
7
6 | 0
5
0
4 | 0
7
3
0 | 0
4
9
4 | 0
7
3
0 | * TOTALS | |
|--|-------------|----------|---|
| | ANIMAL ID | 0
0
2
2
6 | 0
0
2
2
7 | 0
0
0
2
8 | 0
0
2
2
9 | 0
0
2
3
0 | 0
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2
3
1 | 0
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2
3
2 | 0
0
2
3
3 | 0
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2
3
4 | 0
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2
3
5 | 0
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2
3
6 | 0
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3
7 | 0
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3
8 | 0
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2
3
9 | 0
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2
4
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2
4
2 | 0
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4
4 | 0
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4
5 | 0
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4
6 | 0
0
2
4
7 | 0
0
2
4
8 | 0
0
2
4
9 | 0
0
2
5
0 | | |
| | | | |
| | | | |
| Pars Distalis, Carcinoma | | X | | 1 |
| Thyroid Gland | | + | 50 | |
| Bilateral, C-cell, Adenoma | | | 1 |
| C-cell, Adenoma | | X | | 4 |
| C-cell, Carcinoma | | X | | 2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|---|----|
| Clitoral Gland | + | 50 |
| Ovary | + | 50 |
| Granulosa Cell Tumor Malignant | | | | X | | 1 |
| Granulosa-Theca Tumor Malignant | 1 |
| Uterus | + | 50 |
| Adenocarcinoma | | | | X | X | | | | | | | | | | | | | | | X | | | | | | | | 3 |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | | | | X | | 1 |
| Lymphoma Malignant | 1 |
| Squamous Cell Carcinoma | 1 |
| Cervix, Sarcoma Stromal | X | | | | | | | 1 |
| Cervix, Squamous Cell Carcinoma | X | | | | | | | 1 |
| Cervix, Endometrium, Polyp Stromal | 1 |
| Endometrium, Polyp Stromal | | | | | | | | | X | | | | | | | | | | X | | | | | | | | | 3 |
| Endometrium, Polyp Stromal, Multiple | 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: 03038 - 03

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P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
0mg/L female | DAY ON TEST | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
5
6
7 | 0
7
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6
7
6 | 0
7
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0 | 0
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3
1 | 0
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4 | 0
7
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4
9
4 | 0
7
3
0 | * TOTALS | | |
|--|-------------|----------|-----------------------|--|
| | ANIMAL ID | 0
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4 | 0
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5 | 0
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6 | 0
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7 | 0
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3
8 | 0
0
2
3
9 | 0
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2
4
0 | 0
0
2
4
1 | 0
0
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4
2 | 0
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4
3 | 0
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4
4 | 0
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2
4
5 | 0
0
2
4
6 | 0
0
2
4
7 | 0
0
2
4
8 | | 0
0
2
4
9 | |
| | | | | |
| Skin | | + | 50 | |
| Subcutaneous Tissue, Fibroma | | X | | 1 | |
| Subcutaneous Tissue, Fibrosarcoma | | | 1 | |
| Subcutaneous Tissue, Hemangiopericytoma | | | X | | | 1 | |
| Subcutaneous Tissue, Osteosarcoma | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | | + | 50 | |
| NERVOUS SYSTEM | | | | |
| Brain | | + | 50 | |
| RESPIRATORY SYSTEM | | | | |
| Lung | | + | 50 | |
| Adenocarcinoma, Metastatic, Mammary Gland | | | | | | | | | | | | | | | | | | X | | | | | | | | 1 | |
| Granulosa Cell Tumor Malignant, Metastatic, Ovary | | | | | X | | 1 | |
| Nose | | + | 50 | |
| Trachea | | + | 50 | |
| SPECIAL SENSES SYSTEM | | | | |
| Eye | | + | 50 | |
| Harderian Gland | | + | 50 | |

* .. 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: 03038 - 03

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | | DAY ON TEST | | | | | females
(cont...) |
|--|--|-----------------------|--|--|--|----------------------|
| | | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
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6 | 0
7
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4 | 0
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8 | 0
6
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0 | 0
7
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2 | 0
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2 | 0
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| ANIMAL ID | | 0
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0
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7 | 0
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8 | 0
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9 | 0
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6
0 | 0
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6
1 | 0
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6
2 | 0
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2
6
3 | 0
0
2
6
4 | 0
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6
5 | 0
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2
6
6 | 0
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6
7 | 0
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8 | 0
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6
9 | 0
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7
0 | 0
0
2
7
1 | 0
0
2
7
2 | 0
0
2
7
3 | 0
0
2
7
4 | 0
0
2
7
5 | | | | |

Blood Vessel

+ +

Heart

+ +

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Lymphoma Malignant

X

Adrenal Medulla

+ +

Pheochromocytoma Benign

X

Pheochromocytoma Malignant

X

Islets, Pancreatic

+ +

Adenoma

Parathyroid Gland

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

Carcinoma, Metastatic, Thyroid Gland

X

Pituitary Gland

+ +

Pars Distalis, Adenoma

X

X

X

X

Pars Distalis, Carcinoma

X

Thyroid Gland

+ +

Schwannoma Malignant, Metastatic, Peripheral Nerve

Bilateral, C-cell, Adenoma

X

X

X

X

X

X

C-cell, Adenoma, Multiple

X

C-cell, Carcinoma

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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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | | DAY ON TEST | | | | | females
(cont...) |
|--|--|-----------------------|--|--|--|----------------------|
| | | 0
7
3
1 | 0
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1 | 0
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6 | 0
7
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4 | 0
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0 | 0
6
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8 | 0
6
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0 | 0
7
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2 | 0
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2 | 0
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2 | 0
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| ANIMAL ID | | 0
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3 | 0
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4 | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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6
0 | 0
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6
1 | 0
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6
2 | 0
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2
6
3 | 0
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4 | 0
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6
5 | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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0
2
7
1 | 0
0
2
7
2 | 0
0
2
7
3 | 0
0
2
7
4 | 0
0
2
7
5 | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland
Carcinoma

| | | |
|---|--|---|
| + | | |
| | | X |

Ovary

| |
|---|
| + |
|---|

Uterus
Lymphoma Malignant
Endometrium, Polyp Stromal

| | | |
|---|--|---|
| + | | |
| | | X |

Vagina

| |
|---|
| + |
|---|

HEMATOPOIETIC SYSTEM

Bone Marrow

| |
|---|
| + |
|---|

Lymph Node
Mediastinal, Lymphoma Malignant

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | + | | + | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|

Lymph Node, Mandibular
Lymphoma Malignant

| |
|---|
| + | |
| | X |

Lymph Node, Mesenteric
Lymphoma Malignant

| |
|---|
| + | |
| | 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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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | DAY ON TEST | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
5
6 | 0
7
0
4 | 0
3
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0 | 0
6
3
8 | 0
6
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
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1 | 0
6
8
6 | 0
7
3
0 | 0
4
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3 | 0
7
3
0 | 0
6
3
8 | 0
7
0
1 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | females
(cont...) |
|--|-------------|-----------------------|
| | ANIMAL ID | 0
0
2
5
1 | 0
0
2
5
2 | 0
0
2
5
3 | 0
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2
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4 | 0
0
2
5
5 | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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1 | 0
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7
3 | 0
0
2
7
4 | 0
0
2
7
5 |

Spleen
Lymphoma Malignant

+ + + + + + + + + + + + + + + X X + + + + + + +

Thymus

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

INTEGUMENTARY SYSTEM

Mammary Gland
Adenocarcinoma
Fibroadenoma
Fibroadenoma, Multiple+ + + + + + + + + X + + + + + + + + +
X X X X X X X X X X X X X X X X
X X X X X X X X X X X X X X X XSkin
Subcutaneous Tissue, Fibroma
Subcutaneous Tissue, Schwannoma Malignant+
X X X X X X X X X X X X X X X X
X X X X X X X X X X X X X X X X

MUSCULOSKELETAL SYSTEM

Bone

+ +

NERVOUS SYSTEM

Brain
Schwannoma Malignant, Metastatic, Peripheral
Nerve

+ +

Peripheral Nerve
Trigeminal, Schwannoma Malignant

RESPIRATORY SYSTEM

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

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A .. Autolysis precludes evaluation
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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | DAY ON TEST | 0
7
3
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6
3
8 | 0
7
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7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | females
(cont...) | |
|---|-------------|----------------------|-----------------------|
| | ANIMAL ID | 0
0
2
5
1 | 0
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7 | 0
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8 | 0
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9 | 0
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0 | 0
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7
1 | 0
0
2
7
2 | 0
0
2
7
3 | 0
0
2
7
4 | | 0
0
2
7
5 |
| | | | |
| Lung | | + | |
| Lymphoma Malignant | | | |
| Nephroblastoma, Metastatic, Kidney | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Nose | | + | |
| Trachea | | + | |
| SPECIAL SENSES SYSTEM | | | |
| Eye | | + | |
| Schwannoma Malignant, Metastatic, Peripheral Nerve | | | |
| Harderian Gland | | + | |
| Bilateral, Schwannoma Malignant, Metastatic, Peripheral Nerve | | | |
| URINARY SYSTEM | | | |
| Kidney | | + | |
| Lymphoma Malignant | | | |
| Nephroblastoma | | | | | | | | | X | | | | | | | | X | | | | | | | | | | |
| Urinary Bladder | | + | |
| Urothelium, Papilloma | | | X | |
| SYSTEMIC LESIONS | | | |
| Multiple Organ | | + | |

* .. 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: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | DAY ON TEST | | 0 | |
|--|-------------|--|----------|
| | ANIMAL ID | | 7 | 6 | 3 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | | 3 | 2 | 9 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 3 | 5 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | | 0 | |
| | | | 2 | |
| | | | 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 | |
| | | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | * TOTALS |

ALIMENTARY SYSTEM

| | |
|---------------------------|----|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | 50 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum | + | 50 |
| Intestine Small, Jejunum | + | 50 |
| Liver | + | 50 |
| Hepatocellular Adenoma | | | | | | X | | | | | | | | | | | | | | | | | X | | | | | 2 |
| Lymphoma Malignant | | | X | | 3 |
| Pancreas | + | 50 |
| Salivary Glands | + | 50 |
| Stomach, Forestomach | + | 50 |
| Stomach, Glandular | + | 50 |

CARDIOVASCULAR 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

Lab: BAT[illegible]

BLANK .. Not examined microscopically

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | | DAY ON TEST | | 0 | * TOTALS |
|--|--|-------------|----------|
| | | 3 | 2 | 9 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 3 | 5 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | ANIMAL ID | | 0 | |
| | | 0 | 0 | |
| | | 2 | 2 | 3 | |
| | | 7 | 7 | 7 | 7 | 8 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|-----------------------------|----|
| Clitoral Gland
Carcinoma | + | 50 |
| | 1 |
| Ovary | + | 50 |
| Uterus | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Endometrium, Polyp Stromal | | | X | | | | | | | X | | | | X | | | | | | | | | | | | | | | 4 |
| Vagina | + | 50 |

HEMATOPOIETIC SYSTEM

| | |
|---------------------------------|----|
| Bone Marrow | + | 50 |
| Lymph Node | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | 3 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 2 |
| Lymph Node, Mesenteric | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 2 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
250mg/L female | | DAY ON TEST | 0 | * TOTALS |
|--|--|-------------|----|----------|
| | | 3 | 2 | 9 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 3 | 5 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 5 | 1 | 9 | 1 | 1 | 2 | 9 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | | 0 | 0 | |
| | | 0 | 0 | | |
| | | 2 | 2 | 3 | |
| | | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | * TOTALS | | |
| Spleen | | + | + | 50 | |
| Lymphoma Malignant | | | X | | 3 | |
| Thymus | | + | + | 49 | |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | | + | + | 50 | |
| Adenocarcinoma | | | 1 | |
| Fibroadenoma | | | X | X | | | X | X | | | | | X | | X | | X | X | X | | X | X | X | X | | 26 | |
| Fibroadenoma, Multiple | | | 3 | |
| Skin | | + | + | 50 | |
| Subcutaneous Tissue, Fibroma | | | | | | | | X | | | | | | | | | | | | | | | | | | 2 | |
| Subcutaneous Tissue, Schwannoma Malignant | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | | + | + | 50 | |
| NERVOUS SYSTEM | | | | |
| Brain | | + | + | 50 | |
| Schwannoma Malignant, Metastatic, Peripheral Nerve | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 | |
| Peripheral Nerve | | | | | | | | | + | | | | | | | | | | | | | | | | | 1 | |
| Trigeminal, Schwannoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | 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

Lab: BAT[illegible]

BLANK .. Not examined microscopically

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | | | | females
(cont...) |
|--|-----------------------|--|--|----------------------|
| | 0
7
3
1 | 0
7
3
1 | 0
4
6
3 | 0
7
3
1 | 0
6
5
1 | 0
5
8
8 | 0
2
7
0 | 0
7
3
0 | 0
7
1
6 | 0
2
8
8 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
2
9 | 0
7
3
0 | 0
5
9
2 | 0
7
3
0 | 0
5
1
9 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
5
6 | | | | |
| | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
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5 | 0
0
3
0
6 | 0
0
3
0
7 | 0
0
3
0
8 | 0
0
3
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9 | 0
0
3
1
0 | 0
0
3
1
1 | 0
0
3
1
2 | 0
0
3
1
3 | 0
0
3
1
4 | 0
0
3
1
5 | 0
0
3
1
6 | 0
0
3
1
7 | 0
0
3
1
8 | 0
0
3
2
9 | 0
0
3
2
0 | 0
0
3
2
1 | 0
0
3
2
2 | 0
0
3
2
3 | 0
0
3
2
4 | 0
0
3
2
5 | | | |
| | ANIMAL ID | | | | |

ALIMENTARY SYSTEM

| |
|------------------------------------|
| Esophagus | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum | + |
| Liver | + |
| Cholangioma |
| Leiomyosarcoma, Metastatic, Vagina | | | | | | X | |
| Leukemia Mononuclear |
| Mesentery | | | | | | + | |
| Leiomyosarcoma, Metastatic, Vagina | | | | | | X | |
| Pancreas | + |
| Salivary Glands | + |
| Stomach, Forestomach | + |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
7
3
1 | 0
7
3
1 | 0
4
6
3 | 0
7
3
1 | 0
6
5
1 | 0
5
8
8 | 0
2
7
0 | 0
7
3
0 | 0
7
1
6 | 0
2
8
8 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
2
9 | 0
7
3
0 | 0
5
9
2 | 0
7
3
0 | 0
5
1
9 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
5
6 | females
(cont...) | |
|--|-------------|----------------------|-----------------------|
| | ANIMAL ID | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | 0
0
3
0
6 | 0
0
3
0
7 | 0
0
3
0
8 | 0
0
3
0
9 | 0
0
3
1
0 | 0
0
3
1
1 | 0
0
3
1
2 | 0
0
3
1
3 | 0
0
3
1
4 | 0
0
3
1
5 | 0
0
3
1
6 | 0
0
3
1
7 | 0
0
3
1
8 | 0
0
3
2
9 | 0
0
3
2
0 | 0
0
3
2
1 | 0
0
3
2
2 | 0
0
3
2
3 | 0
0
3
2
4 | | 0
0
3
2
5 |
| | | | |
| Stomach, Glandular | | + | |
| CARDIOVASCULAR SYSTEM | | | |
| Blood Vessel | | + | |
| Heart | | + | |
| Leiomyosarcoma, Metastatic, Vagina | | | | | | X | | |
| ENDOCRINE SYSTEM | | | |
| Adrenal Cortex | | + | |
| Adenoma | | | |
| Adrenal Medulla | | + | |
| Islets, Pancreatic | | + | |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland | | + | |
| Leukemia Mononuclear | | | |
| Pars Distalis, Adenoma | | X | | | X | | | | | X | | X | | | X | | | | | | | | X | | | | |
| Pars Distalis, Adenoma, Multiple | | | |
| Thyroid Gland | | + | |
| C-cell, Adenoma | | X | | | | X | | | | X | | | | X | X | | | | | | | | | | | | |
| C-cell, Carcinoma | | | |

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: 03038 - 03

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Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
7
3
1 | 0
7
3
1 | 0
4
6
3 | 0
7
3
1 | 0
6
5
1 | 0
5
8
8 | 0
2
7
0 | 0
7
3
0 | 0
7
1
6 | 0
2
8
8 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
2
9 | 0
7
3
0 | 0
5
9
2 | 0
7
3
0 | 0
5
1
9 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
5
6 | females
(cont...) | |
|--|-------------|----------------------|-----------------------|
| | ANIMAL ID | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | 0
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3
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6 | 0
0
3
0
7 | 0
0
3
0
8 | 0
0
3
0
9 | 0
0
3
1
0 | 0
0
3
1
1 | 0
0
3
1
2 | 0
0
3
1
3 | 0
0
3
1
4 | 0
0
3
1
5 | 0
0
3
1
6 | 0
0
3
1
7 | 0
0
3
1
8 | 0
0
3
1
9 | 0
0
3
2
0 | 0
0
3
2
1 | 0
0
3
2
2 | 0
0
3
2
3 | 0
0
3
2
4 | | 0
0
3
2
5 |
| | | | |
| | | | |

NONE

GENITAL SYSTEM

Clitoral Gland

+ +

Ovary

+ +

Paraovarian Tissue, Leiomyosarcoma,
Metastatic, Vagina

X

Uterus

+ +

Adenocarcinoma

X

X

Leiomyosarcoma, Metastatic, Vagina

X

Leukemia Mononuclear

Endometrium, Polyp Stromal

X

X

X

Vagina

+ +

Leiomyosarcoma

X

HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Leukemia Mononuclear

Lymph Node

+

Renal, Leiomyosarcoma, Metastatic, Vagina

X

Lymph Node, Mandibular

+ +

Lymph Node, Mesenteric

+ +

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | | DAY ON TEST | | | | | females
(cont...) |
|--|--|-----------------------|--|--|--|----------------------|
| | | 0
7
3
1 | 0
7
3
1 | 0
4
6
3 | 0
7
3
1 | 0
6
5
1 | 0
5
8
8 | 0
2
7
0 | 0
7
3
0 | 0
7
1
6 | 0
2
8
8 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
2
9 | 0
7
3
0 | 0
5
9
2 | 0
7
3
0 | 0
5
1
9 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
5
6 | | | | |
| ANIMAL ID | | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | 0
0
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6 | 0
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3
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7 | 0
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8 | 0
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9 | 0
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1 | 0
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2 | 0
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3 | 0
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4 | 0
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7 | 0
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8 | 0
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9 | 0
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0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | | | | |

Leiomyosarcoma, Metastatic, Vagina

X

Spleen

+ +

Leukemia Mononuclear

Thymus

+ +

INTEGUMENTARY SYSTEM

Mammary Gland

+ +

Adenocarcinoma

X

Adenoma

X

X

Fibroadenoma

X

X

X

X

X

X

Fibroadenoma, Multiple

X

X

X

X

X

X

X

Skin

+ +

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle

+

Diaphragm, Leiomyosarcoma, Metastatic,
Vagina

X

NERVOUS SYSTEM

Brain

+ +

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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
7
3
1 | 0
7
3
1 | 0
4
6
3 | 0
7
3
1 | 0
6
5
1 | 0
5
8
8 | 0
2
7
0 | 0
7
3
0 | 0
7
1
6 | 0
2
8
8 | 0
5
3
3 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
5
2
9 | 0
7
3
0 | 0
5
9
2 | 0
7
3
0 | 0
5
1
9 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
5
6 | females
(cont...) | | |
|--|-------------|----------------------|-----------------------|-----------------------|
| | ANIMAL ID | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | 0
0
3
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6 | 0
0
3
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7 | 0
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3
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8 | 0
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3
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9 | 0
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3
1
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0
3
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1 | 0
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3
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2 | 0
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3
1
3 | 0
0
3
1
4 | 0
0
3
1
5 | 0
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3
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6 | 0
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1
7 | 0
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3
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8 | 0
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2
9 | 0
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3
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0 | 0
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2
1 | 0
0
3
2
2 | 0
0
3
2
3 | | 0
0
3
2
4 | 0
0
3
2
5 |
| | | | | |
| Lung | | + | | |
| Adenocarcinoma, Metastatic, Uterus | | | | | X | | | |
| Leiomyosarcoma, Metastatic, Vagina | | | | | X | | | |
| Lymphoma Malignant | | | | |
| Nose | | + | | |
| Trachea | | + | | |
| SPECIAL SENSES SYSTEM | | | | |
| Eye | | + | | |
| Harderian Gland | | + | | |
| Zymbal's Gland | | | | |
| Adenocarcinoma | | | | |
| URINARY SYSTEM | | | | |
| Kidney | | + | | |
| Leukemia Mononuclear | | | | |
| Urinary Bladder | | + | | |
| Leiomyosarcoma, Metastatic, Vagina | | | | | X | | | |
| 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | | DAY ON TEST | | 0 | * TOTALS |
|--|--|-------------|----------|
| | | ANIMAL ID | | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | | |
| | | | | 9 | 3 | 3 | 3 | 4 | 3 | 3 | 0 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 7 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | | |
| | | | | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 6 | 1 | 2 | 2 | 2 | 2 | 0 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 0 | 0 | |
| | | 0 | 0 | | |
| | | 0 | 0 | | |
| | | 3 | 3 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |

ALIMENTARY SYSTEM

| | |
|------------------------------------|----|
| Esophagus | + | + | + | + | M | + | 49 |
| Intestine Large, Cecum | + | 50 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum | + | 50 |
| Intestine Small, Jejunum | + | 50 |
| Liver | + | 50 |
| Cholangioma | | | | | X | | 1 |
| Leiomyosarcoma, Metastatic, Vagina | | 1 |
| Leukemia Mononuclear | | | | | | X | | | | | X | | | | | | | | | | | | | | | | | 2 |
| Mesentery | 1 |
| Leiomyosarcoma, Metastatic, Vagina | | 1 |
| Pancreas | + | 50 |
| Salivary Glands | + | + | + | + | M | + | 49 |
| Stomach, Forestomach | + | 50 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
5
9
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
6
4
2 | 0
7
3
1 | 0
7
3
1 | 0
5
0
0 | 0
7
1
6 | 0
7
3
1 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
2
0 | 0
6
7
6 | 0
5
8
5 | 0
7
3
1 | 0
7
3
1 | 0
7
3
0 | 0
7
3
0 | 0
6
7
5 | 0
7
3
0 | 0
7
3
0 | * TOTALS |
|--|-------------|----------|
| | ANIMAL ID | 0
0
3
2
6 | 0
0
3
2
7 | 0
0
3
2
8 | 0
0
3
2
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
0
3
3
7 | 0
0
3
3
8 | 0
0
3
3
9 | 0
0
3
4
0 | 0
0
3
4
1 | 0
0
3
4
2 | 0
0
3
4
3 | 0
0
3
4
4 | 0
0
3
4
5 | 0
0
3
4
6 | 0
0
3
4
7 | 0
0
3
4
8 | 0
0
3
4
9 | |
| | | |
| Stomach, Glandular | | + | 50 |
| CARDIOVASCULAR SYSTEM | | |
| Blood Vessel | | + | 50 |
| Heart | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leiomyosarcoma, Metastatic, Vagina | | | 1 |
| ENDOCRINE SYSTEM | | |
| Adrenal Cortex | | + | 50 |
| Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | | + | 50 |
| Islets, Pancreatic | | + | 50 |
| Parathyroid Gland | | M | + | M | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | 44 |
| Pituitary Gland | | + | 50 |
| Leukemia Mononuclear | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Adenoma | | | | | | X | X | | X | | | | | X | | | | | | | X | | | X | | 12 |
| Pars Distalis, Adenoma, Multiple | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Thyroid Gland | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| C-cell, Adenoma | | | | | | | | | | X | X | X | | | X | | | X | X | X | | | X | | | 13 |
| C-cell, Carcinoma | | | | | X | | | | | X | | | | | | | | | | | | | | | | 2 |

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

Lab: BAT[illegible]

NONE

GENITAL SYSTEM

[illegible]

HEMATOPOIETIC SYSTEM

[illegible]

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
5
9
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
6
4
2 | 0
7
3
1 | 0
7
3
1 | 0
5
0
0 | 0
7
1
6 | 0
7
3
1 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
2
0 | 0
6
7
6 | 0
5
8
5 | 0
7
3
1 | 0
7
3
1 | 0
7
3
0 | 0
7
3
0 | 0
6
7
5 | 0
7
3
0 | 0
7
3
0 | * TOTALS | |
|--|-------------|----------|----|
| | ANIMAL ID | 0
0
3
2
6 | 0
0
3
2
7 | 0
0
3
2
8 | 0
0
3
2
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
0
3
3
7 | 0
0
3
3
8 | 0
0
3
3
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
0
3
3
7 | 0
0
3
3
8 | 0
0
3
3
9 | | |
| | | | |
| Leiomyosarcoma, Metastatic, Vagina | | | 1 |
| Spleen | + | + | + | 50 |
| Leukemia Mononuclear | | | | | X | | | | | X | | | | | | | | | | | | | | | | | 2 |
| Thymus | + | + | + | + | M | + | 49 |
| INTEGUMENTARY SYSTEM | | | |
| Mammary Gland | + | + | + | 50 |
| Adenocarcinoma | | X | | 2 |
| Adenoma | | | | X | | 3 |
| Fibroadenoma | X | | | | | | | X | | | X | X | | | | | X | | | | X | X | X | | | | 15 |
| Fibroadenoma, Multiple | | | | | | | | | | | | | X | | | | | | | | | | | | | | 8 |
| Skin | + | + | + | 50 |
| MUSCULOSKELETAL SYSTEM | | | |
| Bone | + | + | + | 50 |
| Skeletal Muscle | | | 1 |
| Diaphragm, Leiomyosarcoma, Metastatic, Vagina | | | 1 |
| NERVOUS SYSTEM | | | |
| Brain | + | + | + | 50 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | 0
5
9
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
6
4
2 | 0
7
3
1 | 0
7
3
1 | 0
5
0
0 | 0
7
1
6 | 0
7
3
1 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
4
2
0 | 0
6
7
6 | 0
5
8
5 | 0
7
3
1 | 0
7
3
1 | 0
7
3
0 | 0
7
3
0 | 0
6
7
5 | 0
7
3
0 | 0
7
3
0 | * TOTALS |
|--|-------------|-------------------|
| | ANIMAL ID | 0
0
3
2
6 | 0
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3
2
7 | 0
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2
8 | 0
0
3
2
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
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3
3
7 | 0
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3
3
8 | 0
0
3
3
9 | 0
0
3
4
0 | 0
0
3
4
1 | 0
0
3
4
2 | 0
0
3
4
3 | 0
0
3
4
4 | 0
0
3
4
5 | 0
0
3
4
6 | 0
0
3
4
7 | 0
0
3
4
8 | 0
0
3
4
9 | |
| | | |
| Lung
Adenocarcinoma, Metastatic, Uterus
Leiomyosarcoma, Metastatic, Vagina
Lymphoma Malignant | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
1
1
1 |
| Nose | | + | 50 |
| Trachea | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| SPECIAL SENSES SYSTEM | | |
| Eye | | + | 50 |
| Harderian Gland | | + | 50 |
| Zymbal's Gland
Adenocarcinoma | | | | | | | | | | | | | | | | | | + | | | | | | | | 1
1 |
| URINARY SYSTEM | | |
| Kidney
Leukemia Mononuclear | | + | 50
1 |
| Urinary Bladder
Leiomyosarcoma, Metastatic, Vagina | | + | 50
1 |
| SYSTEMIC LESIONS | | |
| Multiple Organ
Leukemia Mononuclear | | + | 50
2 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
500mg/L female | DAY ON TEST | | 0 | 0 | |
|--|-------------|--|----------|
| | ANIMAL ID | | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | |
| | | | 9 | 3 | 3 | 3 | 4 | 3 | 3 | 0 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 7 | 8 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | |
| | | | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 6 | 1 | 2 | 2 | 2 | 2 | 0 | 6 | 5 | 1 | 1 | 0 | 0 | 5 | 0 | 0 | |
| | | | 0 | 0 | |
| | | | 0 | 0 | |
| | | | 3 | 3 | |
| | | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | | | * TOTALS | |
| Lymphoma Malignant | | | X | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
2 | 0
6
8
9 | 0
7
0
4 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
6
5
8 | 0
7
3
0 | 0
7
2
4 | 0
7
3
0 | 0
7
3
1 | 0
6
0
1 | 0
4
1
3 | 0
7
3
1 | 0
7
6
1 | 0
7
3
6 | 0
7
1
6 | 0
7
3
0 | 0
7
3
0 | 0
5
5
3 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
1
1 | females
(cont...) |
|---|-------------|----------------------|
| | ANIMAL ID | 0
0
3
5
1 | 0
0
3
5
2 | 0
0
3
5
3 | 0
0
3
5
4 | 0
0
3
5
5 | 0
0
3
5
6 | 0
0
3
5
7 | 0
0
3
5
8 | 0
0
3
5
9 | 0
0
3
6
0 | 0
0
3
6
1 | 0
0
3
6
2 | 0
0
3
6
3 | 0
0
3
6
4 | 0
0
3
6
5 | 0
0
3
6
6 | 0
0
3
6
7 | 0
0
3
6
8 | 0
0
3
6
9 | 0
0
3
7
0 | 0
0
3
7
1 | 0
0
3
7
2 | 0
0
3
7
3 | 0
0
3
7
4 | 0
0
3
7
5 | |

ALIMENTARY SYSTEM

| |
|---------------------------|
| Esophagus | + |
| Intestine Large, Cecum | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + |
| Liver | + |
| Cholangioma | | | | | | X | |
| Hepatocellular Adenoma | X | | | | | |
| Lymphoma Malignant |
| Mesentery | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| Pancreas | + |
| Lymphoma Malignant |
| Salivary Glands | + |
| Lymphoma Malignant |
| Stomach, Forestomach | + |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
2 | 0
6
8
9 | 0
7
0
4 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
6
5
8 | 0
7
3
0 | 0
7
2
4 | 0
7
3
0 | 0
7
3
1 | 0
6
0
1 | 0
4
1
3 | 0
7
3
1 | 0
7
3
1 | 0
6
7
6 | 0
7
1
6 | 0
7
3
0 | 0
7
3
0 | 0
5
5
3 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
1
1 | females
(cont...) |
|---|-------------|----------------------|
| | ANIMAL ID | 0
0
3
5
1 | 0
0
3
5
2 | 0
0
3
5
3 | 0
0
3
5
4 | 0
0
3
5
5 | 0
0
3
5
6 | 0
0
3
5
7 | 0
0
3
5
8 | 0
0
3
5
9 | 0
0
3
6
0 | 0
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3
6
1 | 0
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3
6
2 | 0
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3
6
3 | 0
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3
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4 | 0
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3
6
5 | 0
0
3
6
6 | 0
0
3
6
7 | 0
0
3
6
8 | 0
0
3
6
9 | 0
0
3
7
0 | 0
0
3
7
1 | 0
0
3
7
2 | 0
0
3
7
3 | 0
0
3
7
4 | 0
0
3
7
5 | |
| | | |
| Stomach, Glandular | | + |
| CARDIOVASCULAR SYSTEM | | |
| Blood Vessel | | + |
| Heart | | + |
| ENDOCRINE SYSTEM | | |
| Adrenal Cortex | | + |
| Adrenal Medulla | | + |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Islets, Pancreatic | | + |
| Adenoma | | |
| Carcinoma | | | X | |
| Parathyroid Gland | | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | + |
| Pituitary Gland | | + |
| Pars Distalis, Adenoma | | | | | | | | X | X | X | X | | | | | X | X | | | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma, Multiple | | | X | |
| Thyroid Gland | | + |
| Bilateral, C-cell, Adenoma | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| C-cell, Adenoma | | | | | | X | | | | | | | X | | | | | | | | X | | | | | | |
| C-cell, Carcinoma | | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | | DAY ON TEST | | | females
(cont...) |
|---|--|-----------------------|--|----------------------|
| | | 0
7
3
2 | 0
6
8
9 | 0
7
0
4 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
6
5
8 | 0
7
3
0 | 0
7
2
4 | 0
7
3
0 | 0
7
3
1 | 0
4
1
3 | 0
7
3
1 | 0
7
3
1 | 0
6
7
6 | 0
7
1
6 | 0
7
3
0 | 0
7
3
0 | 0
5
5
3 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
1
1 | | | |
| ANIMAL ID | | 0
0
3
5
1 | 0
0
3
5
2 | 0
0
3
5
3 | 0
0
3
5
4 | 0
0
3
5
5 | 0
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6 | 0
0
3
5
7 | 0
0
3
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8 | 0
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3
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9 | 0
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6
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3
6
1 | 0
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6
2 | 0
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3 | 0
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6
4 | 0
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3
6
5 | 0
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3
6
6 | 0
0
3
6
7 | 0
0
3
6
8 | 0
0
3
6
9 | 0
0
3
7
0 | 0
0
3
7
1 | 0
0
3
7
2 | 0
0
3
7
3 | 0
0
3
7
4 | 0
0
3
7
5 | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland

+ +

Ovary

+ +

Lymphoma Malignant

Uterus

+ +

Adenocarcinoma

X

Adenoma

X

Lymphoma Malignant

Squamous Cell Carcinoma

Endometrium, Polyp Stromal

X

Endometrium, Polyp Stromal, Multiple

X

Vagina

+ +

HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Lymph Node

+

Axillary, Lymphoma Malignant

Bronchial, Lymphoma Malignant

Lumbar, Lymphoma 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
2 | 0
6
8
9 | 0
7
0
4 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
6
5
8 | 0
7
3
0 | 0
7
2
4 | 0
7
3
0 | 0
7
3
1 | 0
6
0
1 | 0
4
1
3 | 0
7
3
1 | 0
7
3
1 | 0
6
7
6 | 0
7
1
6 | 0
7
3
0 | 0
7
3
0 | 0
5
5
3 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
5
1
1 | females
(cont...) |
|--|-------------|----------------------|
| | ANIMAL ID | 0
0
3
5
1 | 0
0
3
5
2 | 0
0
3
5
3 | 0
0
3
5
4 | 0
0
3
5
5 | 0
0
3
5
6 | 0
0
3
5
7 | 0
0
3
5
8 | 0
0
3
5
9 | 0
0
3
6
0 | 0
0
3
6
1 | 0
0
3
6
2 | 0
0
3
6
3 | 0
0
3
6
4 | 0
0
3
6
5 | 0
0
3
6
6 | 0
0
3
6
7 | 0
0
3
6
8 | 0
0
3
6
9 | 0
0
3
7
0 | 0
0
3
7
1 | 0
0
3
7
2 | 0
0
3
7
3 | 0
0
3
7
4 | 0
0
3
7
5 | |
| | | |
| Lymph Node, Mandibular
Lymphoma Malignant | | + |
| Lymph Node, Mesenteric
Lymphoma Malignant | | + |
| Spleen
Lymphoma Malignant | | + |
| Thymus
Lymphoma Malignant | | + |
| INTEGUMENTARY SYSTEM | | |
| Mammary Gland
Adenocarcinoma
Adenoma
Fibroadenoma
Fibroadenoma, Multiple | | + |
| | | |
| | | |
| | | |
| | | |
| Skin | | + |
| MUSCULOSKELETAL SYSTEM | | |
| Bone | | + |
| NERVOUS SYSTEM | | |
| Brain
Glioma 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: 03038 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Sodium Tungstate Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
 Time Report Requested: 10:13:17
 First Dose M/F: 01/30/12 / 01/31/12
 Lab: BAT

| | | | |
|---|-------------|------------------|----------|
| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
1 | 0
6
2
4 | 0
7
3
1 | 0
7
3
1 | 0
2
0
0 | 0
4
7
8 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
3 | 0
7
3
0 | 0
7
3
0 | 0
6
5
2 | 0
5
1
8 | 0
7
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
7
3
0 | 0
6
4
2 | 0
5
8
3 | 0
7
3
2 | 0
4
5
4 | * TOTALS |
| | ANIMAL ID | 0
0
3
7
6 | 0
0
3
7
7 | 0
0
3
7
8 | 0
0
3
7
9 | 0
0
3
8
0 | 0
0
3
8
1 | 0
0
3
8
2 | 0
0
3
8
3 | 0
0
3
8
4 | 0
0
3
8
5 | 0
0
3
8
6 | 0
0
3
8
7 | 0
0
3
8
8 | 0
0
3
9
0 | 0
0
3
9
1 | 0
0
3
9
2 | 0
0
3
9
3 | 0
0
3
9
4 | 0
0
3
9
5 | 0
0
3
9
6 | 0
0
3
9
7 | 0
0
3
9
8 | 0
0
3
9
9 | | |
| | | | |

ALIMENTARY SYSTEM

| | |
|---------------------------|----|
| Esophagus | + | 50 |
| Intestine Large, Cecum | + | 49 |
| Intestine Large, Colon | + | 50 |
| Intestine Large, Rectum | + | 50 |
| Intestine Small, Duodenum | + | 50 |
| Intestine Small, Ileum | + | 49 |
| Intestine Small, Jejunum | + | 50 |
| Liver | + | 50 |
| Cholangioma | 1 |
| Hepatocellular Adenoma | 1 |
| Lymphoma Malignant | X | | X | X | | | 3 |
| Mesentery | + | | 2 |
| Pancreas | + | 50 |
| Lymphoma Malignant | X | | 1 |
| Salivary Glands | + | 50 |
| Lymphoma Malignant | X | | 1 |
| Stomach, Forestomach | + | 50 |

* .. 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: 03038 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Sodium Tungstate Dihydrate
CAS Number: 10213-10-2

Date Report Requested: 06/26/2019
Time Report Requested: 10:13:17
First Dose M/F: 01/30/12 / 01/31/12
Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
1 | 0
6
2
4 | 0
7
3
1 | 0
7
3
1 | 0
2
0
0 | 0
4
7
8 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
0 | 0
6
5
2 | 0
5
1
8 | 0
7
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
6
4
2 | 0
5
8
3 | 0
7
3
2 | 0
4
5
4 | * TOTALS |
|---|-------------|------------------|----------|
| | ANIMAL ID | 0
0
3
7
6 | 0
0
3
7
7 | 0
0
3
7
8 | 0
0
3
7
9 | 0
0
3
8
0 | 0
0
3
8
1 | 0
0
3
8
2 | 0
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3
8
3 | 0
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3
8
4 | 0
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3
8
5 | 0
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3
8
6 | 0
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3
8
7 | 0
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3
8
8 | 0
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8 | 0
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9
9 | 0
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9
9 | 0
0
3
9
9 | 0
0
3
9
9 | 0
0
3
9
9 | 0
0
3
9
9 | | |
| | | | |
| Stomach, Glandular | | + | 50 |
| CARDIOVASCULAR SYSTEM | | | |
| Blood Vessel | | | + | 49 |
| Heart | | + | 50 |
| ENDOCRINE SYSTEM | | | |
| Adrenal Cortex | | + | 50 |
| Adrenal Medulla | | + | 50 |
| Pheochromocytoma Benign | | | 1 |
| Islets, Pancreatic | | + | 50 |
| Adenoma | | | | | | | | | | | | X | | | | | X | | | | | | | | | | 2 |
| Carcinoma | | | 1 |
| Parathyroid Gland | | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | 44 |
| Pituitary Gland | | + | 50 |
| Pars Distalis, Adenoma | | | X | | | | | | | X | | | | | | | X | | | | | | | | | | 9 |
| Pars Distalis, Adenoma, Multiple | | | 1 |
| Thyroid Gland | | + | 50 |
| Bilateral, C-cell, Adenoma | | | 1 |
| C-cell, Adenoma | | | X | | | | | | | | X | | | | X | | | | | | | | | X | | | 7 |
| C-cell, Carcinoma | | | X | | 4 |

* .. 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | | DAY ON TEST | | | | | ANIMAL ID | * TOTALS |
|---|--|-----------------------|--|--|--|-----------|----------|
| | | 0
7
3
1 | 0
6
2
4 | 0
7
3
1 | 0
7
3
1 | 0
2
0
0 | 0
4
7
8 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
0 | 0
6
5
2 | 0
5
1
8 | 0
7
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
7
3
0 | 0
6
4
2 | 0
5
8
3 | 0
7
3
2 | 0
4
5
4 | | | | | | |
| | | 0
0
3
7
6 | 0
0
3
7
7 | 0
0
3
7
8 | 0
0
3
7
9 | 0
0
3
8
0 | 0
0
3
8
1 | 0
0
3
8
2 | 0
0
3
8
3 | 0
0
3
8
4 | 0
0
3
8
5 | 0
0
3
8
6 | 0
0
3
8
7 | 0
0
3
8
8 | 0
0
3
8
9 | 0
0
3
9
0 | 0
0
3
9
1 | 0
0
3
9
2 | 0
0
3
9
3 | 0
0
3
9
4 | 0
0
3
9
5 | 0
0
3
9
6 | 0
0
3
9
7 | 0
0
3
9
8 | 0
0
3
9
9 | 0
0
4
0
0 | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|--------------------------------------|----|
| Clitoral Gland | + | + | + | + | + | + | + | M | + | 49 |
| Ovary | + | 50 |
| Lymphoma Malignant | X | | | | X | | | | 2 |
| Uterus | + | 50 |
| Adenocarcinoma | 5 |
| Adenoma | 1 |
| Lymphoma Malignant | X | | | 1 |
| Squamous Cell Carcinoma | X | | 2 |
| Endometrium, Polyp Stromal | 7 |
| Endometrium, Polyp Stromal, Multiple | | 1 |
| Vagina | + | 50 |

HEMATOPOIETIC SYSTEM

| | |
|-------------------------------|----|
| Bone Marrow | + | 50 |
| Lymph Node | 2 |
| Axillary, Lymphoma Malignant | 1 |
| Bronchial, Lymphoma Malignant | | 1 |
| Lumbar, Lymphoma Malignant | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | DAY ON TEST | 0
7
3
1 | 0
6
2
4 | 0
7
3
1 | 0
7
3
1 | 0
2
0
0 | 0
4
7
8 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
6
5
2 | 0
5
1
8 | 0
7
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
8 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
6
4
2 | 0
5
8
3 | 0
7
3
2 | 0
4
5
4 | * TOTALS | | |
|---|-------------|----------|-----------------------|--|
| | ANIMAL ID | 0
0
3
7
6 | 0
0
3
7
7 | 0
0
3
7
8 | 0
0
3
7
9 | 0
0
3
8
0 | 0
0
3
8
1 | 0
0
3
8
2 | 0
0
3
8
3 | 0
0
3
8
4 | 0
0
3
8
5 | 0
0
3
8
6 | 0
0
3
8
7 | 0
0
3
8
8 | 0
0
3
8
9 | 0
0
3
9
0 | 0
0
3
9
1 | 0
0
3
9
2 | 0
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3
9
3 | 0
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3
9
4 | 0
0
3
9
5 | 0
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3
9
6 | 0
0
3
9
7 | 0
0
3
9
8 | 0
0
3
9
9 | | 0
0
4
0
0 | |
| | | | | |
| Lymph Node, Mandibular
Lymphoma Malignant | | + | 50
2 | |
| Lymph Node, Mesenteric
Lymphoma Malignant | | + | 50
2 | |
| Spleen
Lymphoma Malignant | | + | 50
3 | |
| Thymus
Lymphoma Malignant | | + | 50
1 | |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland
Adenocarcinoma | | + | 50
2 | |
| Adenoma | | | | | X | X | | 2 | |
| Fibroadenoma | | | X | X | | | X | | | | X | | | X | | X | | | | | | X | | | | | 15 | |
| Fibroadenoma, Multiple | | | | | | | | | X | | | | | | | | | | | | | | X | | | | 3 | |
| Skin | | + | 50 | |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | | + | 50 | |
| NERVOUS SYSTEM | | | | |
| Brain
Glioma Malignant | | + | 50
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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

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Time Report Requested: 10:13:17

First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS
FEMALE
1000mg/L female | | DAY ON TEST | | * TOTALS | |
|---|--|-----------------------|----------|--|
| | | 0
7
3
1 | 0
6
2
4 | 0
7
3
1 | 0
7
3
1 | 0
2
0
0 | 0
4
7
8 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
0 | 0
6
5
2 | 0
5
1
8 | 0
7
3
0 | 0
7
3
2 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
6
4
2 | 0
5
8
3 | 0
7
3
2 | 0
4
5
4 | | | |
| | | | | |
| ANIMAL ID | | 0
0
3
7
6 | 0
0
3
7
7 | 0
0
3
7
8 | 0
0
3
7
9 | 0
0
3
8
0 | 0
0
3
8
1 | 0
0
3
8
2 | 0
0
3
8
3 | 0
0
3
8
4 | 0
0
3
8
5 | 0
0
3
8
6 | 0
0
3
8
7 | 0
0
3
8
8 | 0
0
3
8
9 | 0
0
3
9
0 | 0
0
3
9
1 | 0
0
3
9
2 | 0
0
3
9
3 | 0
0
3
9
4 | 0
0
3
9
5 | 0
0
3
9
6 | 0
0
3
9
7 | 0
0
3
9
8 | 0
0
4
0
0 | | |

RESPIRATORY SYSTEM

| | |
|--------------------|----|
| Lung | + | 50 |
| Lymphoma Malignant | | X | | | | 1 |
| Nose | + | 50 |
| Trachea | + | 50 |

SPECIAL SENSES SYSTEM

| | |
|--------------------|----|
| Eye | + | 50 |
| Harderian Gland | + | 50 |
| Lymphoma Malignant | | X | | | | 1 |

URINARY SYSTEM

| | |
|--------------------|----|
| Kidney | + | 50 |
| Lipoma | X | | | 1 |
| Lymphoma Malignant | | X | | | 1 |
| Urinary Bladder | + | 50 |

SYSTEMIC LESIONS

| | |
|--------------------|----|
| Multiple Organ | + | 50 |
| Lymphoma Malignant | | X | | X | 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: 03038 - 03

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Sodium Tungstate Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 06/26/2019

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First Dose M/F: 01/30/12 / 01/31/12

Lab: BAT

*** 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
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically