

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

F1_R2

C Number: C20005
Lock Date: 09/07/2006
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.0.0

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DAY ON TEST	0 0																								
	7 6 6 5 7 7 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 3 7																								
2 8 8 7 2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 1 2 0 2 9 2																									
9 9 2 0 8 9 2 8 8 7 9 8 7 9 7 8 7 8 7 9 7 1 8 8 8																									
FISCHER 344 RATS MALE 0 MG/KG	ANIMAL ID																								
	0 0																								
	0 0																								
	0 0																								
	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 2 3 4 5																								

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+ +																								
Perforation																									
Muscularis, Degeneration																									
Muscularis, Hemorrhage																									
Muscularis, Inflammation																									
Periesophageal Tissue, Foreign Body																									
Periesophageal Tissue, Inflammation																									
Intestine Large, Cecum	+ +																								
Intestine Large, Colon	+ +																								
Parasite Metazoan	X X																								
Intestine Large, Rectum	+ +																								
Inflammation	2																								
Intestine Small, Duodenum	+ +																								
Intestine Small, Ileum	+ +																								
Intestine Small, Jejunum	+ +																								
Liver	+ +																								
Angiectasis																									
Basophilic Focus	X X																								

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	7	6	6	5	7	7	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	3	7	
FISCHER 344 RATS MALE 0 MG/KG	0																								
	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
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
	males (cont...)																								
Clear Cell Focus	X				X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Degeneration, Cystic																									
Eosinophilic Focus									X						X						X				
Fatty Change, Diffuse			3				2																		
Hematopoietic Cell Proliferation																							1		
Hepatodiaphragmatic Nodule														X							X				
Inflammation	1		1			1		1	1	1	1		1			1	1	1	1	1	1	1	1	1	
Mixed Cell Focus										X			X			X									
Necrosis		1		1	1	2																			
Pigmentation, Hemosiderin																									
Bile Duct, Hyperplasia		3	2	4	2	3	1	1	1	2	2	2	3	2	2	2	2	2	2	2	1	2	2	1	2
Centrilobular, Degeneration						2	3																		
Hepatocyte, Hyperplasia	2																								
Mesentery		+	+				+						+					+			+				
Fat, Necrosis		4	2										1					3			3				
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy	1					2			1	1		3	1	1			2	1		1		1			
Inflammation																								1	
Acinus, Hyperplasia			1																						
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Foreign Body																									
Inflammation			3			2																			
Necrosis			1																						
Epithelium, Hyperplasia			3			1																			

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DAY ON TEST	ANIMAL ID																									males (cont...)
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	6	6	5	7	7	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	3	7	
2	8	8	7	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	2	9	2	
9	9	2	0	8	9	2	8	8	7	9	8	7	9	7	8	7	8	7	9	7	1	8	8	8	8	
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	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	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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Erosion																									
Inflammation				2																					
Necrosis				2			1																		

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Carotid Artery, Thrombosis																									
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	2	2	1	2	2	4	2	2	2	2	2	3		2	2	2	2	2	3	2	1	3	1	2	
Fibrosis																							2		
Atrium, Thrombosis			1			4	2																		
Epicardium, Inflammation																									

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Degeneration, Cystic																									
Hypertrophy											1														
Zona Fasciculata, Hyperplasia					1									1			1								
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	1	3	1			3					1													4	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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	7	6	6	5	7	7	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	3
2	8	8	7	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	2	9	2		
9	9	2	0	8	9	2	8	8	7	9	8	7	9	7	8	7	8	7	9	7	1	8	8	8			
<hr/>																											
FISCHER 344 RATS MALE 0 MG/KG	0																									males (cont...)	
	0																										
	0																										
	0																										
	1																										
ANIMAL ID	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5			

Parathyroid Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<hr/>																											
Pituitary Gland Pars Distalis, Angiectasis Pars Distalis, Hyperplasia	1	2		1	3	1		2	1	3		3		1									4				
<hr/>																											
Thyroid Gland C-cell, Angiectasis C-cell, Hyperplasia Follicular Cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<hr/>																											

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<hr/>																											
Preputial Gland Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<hr/>																											
Prostate Inflammation Epithelium, Hyperplasia	1	3	2		2	3					2	2															
<hr/>																											

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2	8	8	7	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	2	9	2		
9	9	2	0	8	9	2	8	8	7	9	8	7	9	7	8	7	8	7	9	7	1	8	8	8		
.....																										
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	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	

Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia				4																						
Inflammation																										
.....																										
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Interstitial Cell, Hyperplasia		2	3	2										1			3									

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia		4		4	2	1		1					1		2	1		2	1	2	3	3				
Myelofibrosis																										
Necrosis																										
Thrombosis			1																							
.....																										
Lymph Node																										
Mediastinal, Ectasia															+	+										
Mediastinal, Hyperplasia, Lymphoid															2											
Mediastinal, Infiltration Cellular, Plasma Cell																							2			
.....																										
Lymph Node, Mandibular	M	M	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M		
.....																										
Lymph Node, Mesenteric	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy							3		3			2														
Ectasia																										

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	2	8	8	7	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	2	9	2
	9	9	2	0	8	9	2	8	8	7	9	8	7	9	7	8	7	8	7	9	7	1	8	8	8
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males (cont...)

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																									
Hematopoietic Cell Proliferation	1						2	1		1		1	1		1	1		1	1	1		3		1	
Pigmentation, Hemosiderin	1					1		1	1	1	1	1	1	1	1	1	1	1	1	1	1		2		
Thrombosis																									
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy	3		4	4	3	3	4	3	4	3	4	4	3	3	4	3	3	4	3	3	3	3	3	3	3
Inflammation																									

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ulcer																									
Epidermis, Cyst Epithelial Inclusion	X																								
Epidermis, Hyperplasia																									
Subcutaneous Tissue, Inflammation, Histiocytic																									

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cranium, Osteopetrosis																									
Femur, Osteopetrosis																									

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2	8	8	7	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	2	9	2			
9	9	2	0	8	9	2	8	8	7	9	8	7	9	7	8	7	8	7	9	7	1	8	8	8			
.....																											
FISCHER 344 RATS MALE ANIMAL ID	0																										
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	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			

males
(cont...)

Epithelium, Metaplasia, Squamous

SPECIAL SENSES SYSTEM

Eye	+																										
Cornea, Inflammation	+																										
Lens, Cataract	3																										
Retina, Degeneration	4																										
Retina, Fibrosis	2																										
Retina, Mineralization																											
.....																											
Harderian Gland	+																										

URINARY SYSTEM

Kidney	+																										
Accumulation, Hyaline Droplet																											
Mineralization	1 1																										
Nephropathy	3 2																										
Papilla, Transitional Epithelium, Hyperplasia																											
Renal Tubule, Hyperplasia, Atypical																											
.....																											
Urinary Bladder	+																										

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6	5	7	7	7	4	5	7	7	7	7	7	5	6	7	7	6	6	7	7	4	6	6	6	7	
	5	3	2	2	2	4	5	2	2	2	2	2	5	1	0	2	5	7	2	2	6	5	4	7	2	
	7	3	9	9	7	0	9	8	8	9	8	7	9	7	9	9	2	1	7	7	4	0	6	3	8	
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	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	
Clear Cell Focus			X	X	X			X	X	X	X	X			X		X	X					X		28	
Degeneration, Cystic			1		1						2	1		1		1	1				1				9 1.1	
Eosinophilic Focus								X			X			X	X	X									8	
Fatty Change, Diffuse															1							4			4 2.5	
Hematopoietic Cell Proliferation																1									2 1.0	
Hepatodiaphragmatic Nodule							X																		3	
Inflammation	1		1	1	1	1		1	1	1	1	1		1		1	1	1	1			1	1	1	35 1.0	
Mixed Cell Focus			X																						4	
Necrosis																				2	1				6 1.3	
Pigmentation, Hemosiderin																2									1 2.0	
Bile Duct, Hyperplasia	2	3	1	1	1	1	2	2	2	2	2	2	3	3	2	3	1	2	3	2		3	2	1	2	47 2.0
Centrilobular, Degeneration	1																								3 2.0	
Hepatocyte, Hyperplasia																									1 2.0	
Mesentery	+	+								+							+		+	+	+				13	
Fat, Necrosis	3	1								3							3		1		4				11 2.5	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy				1	1		1	1	1	2	1			2		1		1	1	1				1	24 1.3	
Inflammation																									1 1.0	
Acinus, Hyperplasia																									1 1.0	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Foreign Body																								X	1	
Inflammation							1														1		4		5 2.2	
Necrosis																					2		4		3 2.3	
Epithelium, Hyperplasia																					1		4		4 2.3	

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 BLANK .. Not examined microscopically
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TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

DAY ON TEST	ANIMAL ID																								* TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	5	7	7	7	4	5	7	7	7	7	7	5	6	7	7	6	6	7	7	4	6	6	6	7		
5	3	2	2	2	4	5	2	2	2	2	2	5	1	0	2	5	7	2	2	6	5	4	7	2		
7	3	9	9	7	0	9	8	8	9	8	7	9	7	9	9	2	1	7	7	4	0	6	3	8		
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	2	2	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	

Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia																									1 4.0	
Inflammation														1											1 1.0	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Interstitial Cell, Hyperplasia	2	2					3					4								4	3			3	2	13 2.6

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia		4	1		2		3					1	3	4		3	2	4			2	3			25 2.4
Myelofibrosis																					1				1 1.0
Necrosis																						2			1 2.0
Thrombosis																									1 1.0
Lymph Node			+				+						+										+	7	
Mediastinal, Ectasia																							2		2 2.0
Mediastinal, Hyperplasia, Lymphoid			2																						1 2.0
Mediastinal, Infiltration Cellular, Plasma Cell																									1 2.0
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	1
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																									3 2.7
Ectasia														2											1 2.0

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 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	0
	7	7	6	7	7	7	7	7	7	6	7	7	6	7	7	7	7	4	5	5	7	7	7	7	7
	2	2	4	2	2	2	2	2	2	9	2	2	5	2	2	2	2	3	3	2	2	2	2	2	2
	8	8	5	7	6	8	7	8	7	9	9	8	9	9	7	9	8	5	9	7	7	7	7	8	7
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1250 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	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

males
(cont...)

Thymus	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M
Atrophy	3	3	3	4	3	3	3	3	3		3	4	3	3	3	4	3	3	4	4	4	4	3	4	

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ulcer																									
Epidermis, Cyst Epithelial Inclusion						X				X															

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Femur, Osteopetrosis																									

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gliosis, Focal																									
Necrosis										1															

RESPIRATORY SYSTEM

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TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 07/23/2008
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First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

Ginseng

CAS Number: 50647-08-0

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	6	7	6	7	5	7	6	5	5	7	7	6	5	7	5	7	7	7	6	7			
	2	2	2	2	2	1	2	4	2	8	2	6	7	8	2	2	8	6	0	6	2	2	2	2	2			
	8	9	8	8	8	7	8	5	7	1	8	6	6	9	4	7	1	1	1	1	8	7	7	9	4			
.....																												
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1250 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	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		* TOTALS	
Amyloid Deposition																											1 2.0	
Mineralization	1				1	1	1	1		1	1			1	1	1			1	1		1	1	1	1		31 1.0	
Nephropathy	1	3	1	2	2	1	2	1	4	1	2	1	1	1	3	2	1	1	4	2	2	3	2	1	2		50 1.9	
Cortex, Cyst													2														1 2.0	
Papilla, Transitional Epithelium, Hyperplasia												1															1 1.0	
.....																												
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50

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TDMS No. 20005 - 05
 Test Type: CHRONIC
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 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

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 First Dose M/F: 01/21/04 / 01/22/04
 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	0	0
	7	7	7	7	6	6	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	7	7	7
	2	2	2	0	0	5	2	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2	2	2
	7	7	8	7	9	2	9	8	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7	7	8
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0	0	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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	males (cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Parasite Metazoan	+	+	+	+	+	+	X	+	+	X	+	+	+	+	+	+	+	+	+	X	+	+	X	+	+
Intestine Large, Rectum Inflammation	+	+	+	+	+	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum Inflammation, Histiocytic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus	X	X	X			X	X				X	X		X	X	X			X	X		X	X	X	
Clear Cell Focus	X	X	X				X		X	X		X			X	X			X			X	X	X	
Degeneration, Cystic					2																		1		
Eosinophilic Focus								X				X										X			
Hematopoietic Cell Proliferation	1				1																				
Hepatodiaphragmatic Nodule									X																
Inflammation	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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TDMS No. 20005 - 05

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344

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Ginseng

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First Dose M/F: 01/21/04 / 01/22/04

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		
ANIMAL ID		7	7	7	7	6	6	7	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	
2500 MG/KG		2	2	2	0	0	5	2	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2	
		7	7	8	7	9	2	9	8	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7	8
FISCHER 344 RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

**males
(cont...)**

Mixed Cell Focus																										
Necrosis																										
Bile Duct, Cyst																										
Bile Duct, Hyperplasia		1	1	1	3	1	2		1	1	1	2	2	2		1	1	1	1	2	1	2	1	1	2	2
Centrilobular, Degeneration																										
Serosa, Fibrosis																										
Mesentery		+														+										
Fat, Necrosis		3																								
Oral Mucosa															+											
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy		1		1		1						3			1				1					1	1	1
Acinus, Hyperplasia																										
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																										
Necrosis																										
Duct, Metaplasia, Squamous																										
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																										
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization		1																								
Tongue																										
Epithelium, Hyperplasia																										

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 Route: GAVAGE
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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
		7	7	7	7	6	6	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	7
		2	2	2	0	0	5	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2
		7	7	8	7	9	2	9	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344 RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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
		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	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

males (cont...)

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	2	2	3	2	3	2	2	3	3	2	2	2	2	3	2	2	3	2	2	2	3	2	3
Atrium, Thrombosis										2													2

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																							
Degeneration, Cystic						3																	
Hypertrophy	3				1				1		1		1										
Zona Fasciculata, Hyperplasia								1													1	1	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia				1				1															3
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																							2
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																							

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

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TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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	0
	7	7	7	7	6	6	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	7	7
	2	2	2	0	0	5	2	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2	2
	7	7	8	7	9	2	9	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7	7	8
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0	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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

Necrosis Pars Distalis, Angiectasis Pars Distalis, Hyperplasia	1	1					3					2	2				2					1	1	
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			1			1				2		2					2					2	1	

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																								2
Prostate Inflammation Epithelium, Hyperplasia	+	+	+	+	+	3	1	2			2	1	1			1			2	2		1	1	
											2							1	1			2		
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Testes Interstitial Cell, Hyperplasia	2	2			1	3					2						2			2				

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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	0
	7	7	7	7	6	6	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	7	7
	2	2	2	0	0	5	2	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2	2
	7	7	8	7	9	2	9	8	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7	8
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0	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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia			1	3	3	1		1		1	2	1		1		2		3		2	2			1	1
Myelofibrosis																									
Lymph Node					+																				+
Mediastinal, Infiltration Cellular, Plasma Cell					2																				
Mediastinal, Necrosis																									
Pancreatic, Ectasia					2																				
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy											3													1	2
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation	3	1	1				1	1		1	2	1	1	1	1		1	2		1	2			1	
Necrosis																									
Pigmentation, Hemosiderin			1	1			1	2	1	1	1			1	1	1	1	1		2	1	1		1	1
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy	3	3	3	3	3	4	3	3	3	3	3	3	3	3	4	3	3	4	4	3	3	3	3	4	3

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

Ginseng

CAS Number: 50647-08-0

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
		7	7	7	7	6	6	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7
		2	2	2	0	0	5	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2
		7	7	8	7	9	2	9	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7
FISCHER 344 RATS MALE	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	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
																							males
																							(cont...)

Mammary Gland Cyst	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																							1
Skin Epidermis, Cyst Epithelial Inclusion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
				X			X			X													

MUSCULOSKELETAL SYSTEM

Bone Femur, Osteopetrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
---------------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NERVOUS SYSTEM

Brain Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
					3																		
Peripheral Nerve Infiltration Cellular, Mononuclear Cell																							+

RESPIRATORY SYSTEM

Lung Fibrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																							1
Lung Inflammation																1							
								1	1					3			3						1
Lung Alveolar Epithelium, Hyperplasia																							
Lung Alveolar Epithelium, Metaplasia																							

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 x .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

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TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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	0
	7	7	7	7	6	6	7	7	7	7	7	7	7	5	7	7	7	6	5	7	7	7	7	7	7
	2	2	2	0	0	5	2	2	2	2	2	2	2	3	2	2	2	5	3	2	2	2	2	2	2
	7	7	8	7	9	2	9	8	8	8	8	9	7	3	9	9	9	7	8	7	9	7	7	7	8
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2500 MG/KG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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

males
(cont...)

Alveolar Epithelium, Metaplasia,
 Squamous
 Alveolus, Infiltration Cellular, Histiocyte

1 1

Nose
 Foreign Body
 Olfactory Epithelium, Inflammation
 Respiratory Epithelium, Inflammation

+ X + + + +
 X
 1
 1 2

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye
 Anterior Chamber, Posterior Chamber,
 Fibrosis

+ +

Harderian Gland
 Metaplasia

+
 2

URINARY SYSTEM

Kidney
 Mineralization
 Nephropathy

+
 1
 1 2 3 2 1 2 3 2 2 1 2 1 2 1 2 2 2 2 1 2 3 2 2 2 2

Urinary Bladder

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 |
| | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 0 | 0 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 5 | 3 | 2 | 2 | 2 | 2 | 2 |
| | 7 | 7 | 8 | 7 | 9 | 2 | 9 | 8 | 8 | 8 | 8 | 8 | 9 | 7 | 3 | 9 | 9 | 9 | 7 | 8 | 7 | 9 | 7 | 7 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

**males
 (cont...)**

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 41

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 | 2 | |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 | 7 | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 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 | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parasite Metazoan | X | | | | | | X | X | X | | | X | | | | | | | X | X | | | | | 11 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Histiocytic | | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Basophilic Focus | | X | X | X | | | | | | | X | | X | | X | | X | X | | X | X | | X | X | 27 |
| Clear Cell Focus | X | X | | X | | | | | X | | X | X | | X | | X | | X | X | | X | | X | X | 25 |
| Degeneration, Cystic | | | | | | 1 | | | | 1 | | | 1 | | | | | | | | | | | | 5 1.2 |
| Eosinophilic Focus | X | | | | | | | | | | | X | | | | | | | | | | | | | 5 |
| Hematopoietic Cell Proliferation | | | | | | 1 | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 41 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | | |
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 | |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 | 7 | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 | * TOTALS |
| Mixed Cell Focus | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Bile Duct, Hyperplasia | 2 | 1 | | 2 | | 2 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | | 44 |
| Centrilobular, Degeneration | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 |
| Serosa, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Atrophy | 1 | | | | 2 | 1 | | | 1 | 3 | | 1 | 1 | | | | | | | 1 | | 1 | | 1 | 1 | 23 |
| Acinus, Hyperplasia | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | 2 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Duct, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
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 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 | 2 | |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 | 7 | 0 | |
| FISCHER 344 RATS MALE
2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 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 | 0 | * TOTALS |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 50 |
| Atrium, Thrombosis | | | | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | 3 1.3 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.5 |
| Zona Fasciculata, Hyperplasia | 1 | | | | | | | | | | 1 | | | | | | 1 | | 2 | | | | | | | | 7 1.1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | 4 | | | | | | 1 | | 3 | | | | | | | | | 6 2.2 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Page 44

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | |
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 | 7 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---|---|---------------|---------------|
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | |
| Pars Distalis, Hyperplasia | 1 | | | | | | 2 | | | | | 1 | 4 | | | | | 1 | 2 | | | | 3 | | 1 | 2 | 3 | 18 1.8 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 14 1.6 |
| C-cell, Hyperplasia | 1 | | | | | | 2 | | | 1 | | 4 | 2 | | | | | 1 | 1 | | | | | | | | | | |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|---------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 20 1.6 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 2 | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | 8 1.6 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 11 2.1 | | | | | | | | | | | | | | | | | | | | | |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | 7 7 6 7 7 6 6 7 7 7 7 7 7 0 7 7 7 7 6 7 6 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
2500 MG/KG
ANIMAL ID | 2 2 7 2 1 6 9 2 2 2 2 2 2 0 2 2 2 2 2 8 2 3 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 8 6 8 3 3 9 7 7 8 8 9 8 6 8 7 8 9 7 1 8 3 7 9 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 2 2 2 3 3 3 3 3 3 3 3 3 3 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 | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hyperplasia | 2 2 2 3 4 1 3 1 4 1 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | 27 1.9 |
| Myelofibrosis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Lymph Node | + + | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mediastinal, Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pancreatic, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hematopoietic Cell Proliferation | 1 1 2 1 1 3 1 1 1 1 1 1 1 1 1 1 4 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | 33 1.2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pigmentation, Hemosiderin | 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | 31 1.1 |
| Thymus | + + M + | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Atrophy | 3 3 3 4 3 4 3 3 4 3 4 3 3 3 3 3 4 4 3 3 4 3 3 | | | | | | | | | | | | | | | | | | | | | | | | | 47 3.3 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 46

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 | 7 | | | | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 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 | | | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-------|
| Mammary Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0 |
| Skin Epidermis, Cyst Epithelial Inclusion | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | X | + | + | + | + | X | + | + | + | + | 50 | 6 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone Femur, Osteopetrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 2.5 |
| Peripheral Nerve Infiltration Cellular, Mononuclear Cell | | | | | | | | + | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Lung Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0 |
| Lung Inflammation | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 2 | 3 1.3 |
| Lung Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 2.0 |
| Lung Alveolar Epithelium, Metaplasia | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 47

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

Ginseng

CAS Number: 50647-08-0

| 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 | 2 |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 |

| FISCHER 344 RATS MALE
2500 MG/KG
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 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---------------|
| Alveolar Epithelium, Metaplasia,
Squamous | | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | | 2 1.0 | |
| Alveolus, Infiltration Cellular, Histiocyte | | | 1 | | 1 | 1 | | | | 1 | | | | 1 | 1 | 1 | | | 2 | | | 1 | 1 | | 1 | | 18 1.1 |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Foreign Body | | | | | | | | | | | | | | | | | | | X | | | X | | X | X | X | 9 |
| Olfactory Epithelium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 1.5 |
| Respiratory Epithelium, Inflammation | | | | | | | 1 | | 2 | | | | | | 3 | | | 2 | | | 1 | 1 | | 2 | 2 | | 10 1.7 |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|--------------|
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Anterior Chamber, Posterior Chamber,
Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 | |
| Harderian Gland
Metaplasia | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---------------|
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Mineralization | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | 1 | | | | | 1 | | 1 | 1 | | 29 1.0 | |
| Nephropathy | | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | | 50 1.8 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked
Page 48

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 |
| | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 |
| | 2 | 2 | 7 | 2 | 1 | 6 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 3 | 2 | 2 |
| | 7 | 8 | 6 | 8 | 3 | 3 | 9 | 7 | 7 | 8 | 8 | 9 | 8 | 6 | 8 | 7 | 8 | 9 | 7 | 1 | 8 | 3 | 7 | 9 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Page 49

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 6 |
| | | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 | 9 |
| | | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 | 8 |
| FISCHER 344 RATS MALE
5000 MG/KG | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 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 | 5 |

males
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon
Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Basophilic Focus | X | X | X | | X | | | | X | | | X | | | | | | X | X | | X | X | | X | X | |
| Clear Cell Focus | X | | X | | X | | X | | | | X | | | | | | X | X | | X | X | | X | X | | |
| Degeneration, Cystic | | | | 2 | | | | | 2 | | | | | | | | 1 | 1 | | | | | | | | |
| Eosinophilic Focus | X | | | | X | | | | | | | | | | | X | | | X | X | | | | | X | |
| Fatty Change, Focal | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | X | | | | | | | | X | | | | | | | | | X | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | | | |
|------------------------------|--------------------------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|--|
| | | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | | |
| | | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 | | |
| | | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 | | |
| FISCHER 344 RATS MALE | 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 | | |
| | 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 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 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | males (cont...) | | |
| | Inflammation | 1 | 1 | 1 | | 1 | 1 | 1 | | | | 1 | 1 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | Mixed Cell Focus | | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bile Duct, Hyperplasia | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | | 3 | 1 | 2 | | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | Hepatocyte, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Oval Cell, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | Atrophy | | | | | 1 | 1 | | | | | 1 | | | 1 | | | | 2 | 2 | 1 | | 2 | | | | | |
| | Acinus, Basophilic Focus | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| | Acinus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Epithelium, Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 51

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | |
| | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 | |
| | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 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 | |

males
(cont...)

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | | 2 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| Atrium, Thrombosis | | | | | | | | 1 | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | 2 | | | | | 1 | | | | | | | | | | | |
| Necrosis | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Zona Fasciculata, Hyperplasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | 2 | | | 1 | 1 | | | 4 | | | | | | 1 | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 52

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | | |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS MALE | | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 |
| 5000 MG/KG | | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 |
| ANIMAL ID | | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

males
(cont...)

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | 2 | | 3 | 1 | | 1 | | | 3 | 3 | | | 2 | 3 | 2 | | | 1 | 1 | | 1 | | 1 | 4 |
| Lymph Node Mediastinal, Hyperplasia, Lymphoid | | | | + | | | | | | + | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric Atrophy Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | 1 | | | | | | | | | | 3 | |
| Spleen Fibrosis Hematopoietic Cell Proliferation Necrosis Pigmentation, Hemosiderin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | | | 2 | 1 | | 1 | | 2 | 3 | 1 | 1 | 1 | 1 | | | 1 | 1 | | | 1 | 2 | 1 | 1 | 2 |
| | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | | 1 | 1 | 2 | 1 | 1 | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 3 | 4 | 3 | 4 | 4 | 3 | 3 | | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 4 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE
5000 MG/KG | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-------------|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 0 | 0 | 0 |
| 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 | 0 | 0 | 0 |
| 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epidermis, Cyst Epithelial Inclusion | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | X |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Femur, Osteopetrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | + | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|---|--|--|--|--|---|---|--|--|---|--|--|--|---|---|--|--|--|--|---|--|---|---|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 | 1 | | 1 | 1 | | | | | 1 | 1 | | | 1 | | | | 1 | 1 | | | | | 1 | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 55

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 |
| | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 |
| | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| | 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 |

males
(cont...)

Nose +
 Foreign Body X X
 Olfactory Epithelium, Inflammation 1 1
 Respiratory Epithelium, Inflammation 3 1 1 1 3 1

Trachea +
 Inflammation
 Ulcer
 Epithelium, Metaplasia, Squamous

SPECIAL SENSES SYSTEM

Eye +
 Cornea, Inflammation
 Lens, Cataract
 Retina, Degeneration 1
 Retina, Necrosis 1

Harderian Gland +

Zymbal's Gland

URINARY SYSTEM

Kidney +
 Accumulation, Hyaline Droplet 1
 Mineralization 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | |
|------------------------------|--|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 2 | 4 | 7 | 5 | 7 | 3 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | |
| | | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 5 | 6 | 2 | 7 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 9 | |
| | | 9 | 7 | 8 | 4 | 8 | 8 | 8 | 0 | 7 | 9 | 1 | 7 | 0 | 8 | 4 | 4 | 6 | 8 | 8 | 7 | 7 | 1 | 7 | 9 | 8 | |
| FISCHER 344 RATS MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 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 | |
| | | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | | 2 | 1 | 2 | 1 | | | 1 | 1 | 2 | | 1 | | 1 | 2 | | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | |
| Cortex, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder Inflammation | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 57

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|
| | 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 | 50 |
| | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 50 |
| | 2 | 1 | 7 | 2 | 0 | 7 | 3 | 2 | 4 | 2 | 9 | 7 | 2 | 1 | 8 | 4 | 2 | 2 | 1 | 8 | 2 | 5 | 2 | 2 | 2 | 50 |
| | 0 | 7 | 1 | 7 | 5 | 8 | 4 | 7 | 7 | 9 | 9 | 3 | 7 | 3 | 1 | 4 | 8 | 8 | 6 | 1 | 9 | 2 | 7 | 4 | 7 | 50 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 50 |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 50 |
| | 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 | 50 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Colon | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Basophilic Focus | | | | | | X | | X | | X | X | | X | | | X | X | | | | | X | X | | | 20 | |
| Clear Cell Focus | | | | X | X | | | X | | X | | X | | | | X | | | | | | X | X | | | 20 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.4 |
| Eosinophilic Focus | | | | | | | | | X | | | | | | | | | | | | | | | | | 8 | |
| Fatty Change, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Hepatodiaphragmatic Nodule | X | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|-----------------|
| | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | | |
| | 2 | 1 | 7 | 2 | 0 | 7 | 3 | 2 | 4 | 2 | 9 | 7 | 2 | 1 | 8 | 4 | 2 | 2 | 1 | 8 | 2 | 5 | 2 | 2 | 2 | | |
| | 0 | 7 | 1 | 7 | 5 | 8 | 4 | 7 | 7 | 9 | 9 | 3 | 7 | 3 | 1 | 4 | 8 | 8 | 6 | 1 | 9 | 2 | 7 | 4 | 7 | | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 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 | | * TOTALS |
| Inflammation | | | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | | 1 | | 1 | | 32 1.0 | |
| Mixed Cell Focus | | | | | | | | | | | | X | | | | | | | X | | | | X | | | 5 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | |
| Bile Duct, Hyperplasia | 2 | | 1 | 1 | 1 | 1 | | 1 | 2 | 1 | | | 3 | | 2 | | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 39 1.4 | |
| Hepatocyte, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Oval Cell, Hyperplasia | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Mesentery | | | | | | | | | | + | + | | | | | + | | | | | | + | | | | 5 | |
| Fat, Necrosis | | | | | | | | | | 3 | 1 | | | | | 3 | | | | | | 2 | | | | 4 2.3 | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | | | 4 | 1 | 1 | | | | 2 | 1 | 3 | 3 | 1 | | | | | 1 | | 3 | 1 | 1 | | | 1 | 22 1.6 | |
| Acinus, Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Acinus, Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | | | 2 | | | | 3 1.3 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | 2 | | | | | | | | | | | | | | | | | | | | 2 | | | | 2 2.0 | |
| Necrosis | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Epithelium, Dysplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 1.0 | |
| Epithelium, Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | 2 | | | | 3 1.7 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Dysplasia | | | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | |
| | 2 | 1 | 7 | 2 | 0 | 7 | 3 | 2 | 4 | 2 | 9 | 7 | 2 | 1 | 8 | 4 | 2 | 2 | 1 | 8 | 2 | 5 | 2 | 2 | 2 | 2 | | |
| | 0 | 7 | 1 | 7 | 5 | 8 | 4 | 7 | 7 | 9 | 9 | 3 | 7 | 3 | 1 | 4 | 8 | 8 | 6 | 1 | 9 | 2 | 7 | 4 | 7 | | | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mineralization | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | | 49 2.0 |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hypertrophy | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | 4 2.0 |
| Necrosis | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 2 1.0 |
| Zona Fasciculata, Hyperplasia | | | 1 | | | | | | | | | | | 1 | | | | 2 | | | | | | | 4 | 1 | 6 1.7 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | 2 | | | | | 2 | | | | | | 1 | | | | | | | | | | | | | | | 11 1.8 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 1.0 |
| Parathyroid Gland | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | |
|------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 |
| | 2 | 1 | 7 | 2 | 0 | 7 | 3 | 2 | 4 | 2 | 9 | 7 | 2 | 1 | 8 | 4 | 2 | 2 | 1 | 8 | 2 | 5 | 2 | 2 | 2 |
| | 0 | 7 | 1 | 7 | 5 | 8 | 4 | 7 | 7 | 9 | 9 | 3 | 7 | 3 | 1 | 4 | 8 | 8 | 6 | 1 | 9 | 2 | 7 | 4 | 7 |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 MG/KG | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--------------|
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pars Distalis, Hyperplasia | | | | | | | 1 | 3 | 2 | 1 | 3 | | | 1 | 3 | | | | | 2 | | 1 | 4 | | | 21 1.9 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| C-cell, Hyperplasia | | | | | | | 2 | | | | | 2 | | | | | | | | 1 | | 3 | | 2 | | 14 1.8 | |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 2 4.0 |
| Prostate Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Epithelium, Hyperplasia | | | 3 | | 2 | | | | | | | | 3 | 1 | 1 | | | | | 3 | | | | | | 21 1.7 |
| | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 4 2.0 |
| Seminal Vesicle Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Germinal Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 9 2.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | 7 6 6 7 6 6 5 7 6 7 6 6 7 6 6 0 7 7 7 6 7 6 7 6 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
5000 MG/KG
ANIMAL ID | 2 1 7 2 0 7 3 2 4 2 9 7 2 1 8 4 2 2 1 8 2 5 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 7 1 7 5 8 4 7 7 9 9 3 7 3 1 4 8 8 6 1 9 2 7 4 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|----|-----|
| Bone Marrow Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 28 | 2.0 |
| Lymph Node Mediastinal, Hyperplasia, Lymphoid | + | | | | | | | | | | | | | | | | | | | | | | | | 6 | 1 | 2.0 |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | 0 | | |
| Lymph Node, Mesenteric Atrophy Hyperplasia, Lymphoid | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 4 | 1.8 |
| Spleen Fibrosis Hematopoietic Cell Proliferation Necrosis Pigmentation, Hemosiderin | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 1 | 2.0 |
| Thymus Atrophy | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 46 | 3.4 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
|---------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 62

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|-------|-------|---|-------|-------|--------|
| | 7 6 6 7 6 6 5 7 6 7 6 6 7 6 6 0 7 7 7 6 7 6 7 6 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
5000 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | | | | | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Epidermis, Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | X | 7 | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Femur, Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 2 2.5 | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.0 | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | |
| Inflammation | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2 | 3 | 8 1.8 | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 1 | 2 | 1 | 6 1.7 | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 2 | 2 | 19 1.1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
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 A .. Autolysis precludes evaluation
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TDMS No. 20005 - 05
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Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | * TOTALS |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 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 | 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 | 0 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Foreign Body | | | | | | X | | | | | | | | | | | X | | X | | | | | | | | 5 | |
| Olfactory Epithelium, Inflammation | 2 | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 4 | 1.5 |
| Respiratory Epithelium, Inflammation | 3 | | 3 | 2 | 3 | 2 | | | 3 | | | | | 2 | | | 2 | | 2 | 2 | | | | | | | 16 | 2.1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Ulcer | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | 1 | 3.0 |
| Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 1.0 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cornea, Inflammation | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lens, Cataract | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Retina, Degeneration | 2 | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Retina, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Mineralization | | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 35 | 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 64

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------------|-----------|--|
| | 07 | 06 | 06 | 07 | 06 | 06 | 05 | 07 | 06 | 07 | 06 | 06 | 07 | 06 | 06 | 00 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 06 | 07 | |
| | 20 | 17 | 71 | 27 | 05 | 78 | 34 | 27 | 77 | 49 | 29 | 73 | 13 | 83 | 41 | 28 | 28 | 16 | 86 | 21 | 59 | 27 | 24 | 74 | 77 | |
| FISCHER 344 RATS MALE | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| 5000 MG/KG | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | |
| ANIMAL ID | 76 | 78 | 89 | 01 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | 11 | 22 | |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| Nephropathy | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 44 | |
| Cortex, Hemorrhage | | | | | | | | | | | | | | | 3 | | | | | | | | | | 1 | |
| Papilla, Necrosis | | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Renal Tubule, Dilatation | | 4 | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | 4 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 65

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | |
|--------------------------------|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | |
| | | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | |
| | | 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 5 | 9 | |
| FISCHER 344 RATS FEMALE | 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 MG/KG | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon
Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | X | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | 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 |
| Clear Cell Focus | | | | | X | X | X | X | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | X | | | | | | X | | | | | X | | | | | X | | | | | | | X |
| Fatty Change, Focal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change, Diffuse | | | | | | | | 1 | | | | 2 | | | | | | | | | | | 1 | | |
| Hematopoietic Cell Proliferation | | 1 | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | | | | | | | | X | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 l .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | |
| | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | |
| | 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 5 | 9 | |
| FISCHER 344 RATS FEMALE
0 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | |
| Inflammation | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Mixed Cell Focus | | | | | | | | | | | | X | | | | | | | | | | | X | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | | |
| Bile Duct, Hyperplasia | | | | | 1 | 1 | | 2 | | | 2 | | | | | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | |
| Mesentery | + | | | + | | | | | | | | + | | | | | | | | + | | | + | | |
| Fat, Necrosis | 1 | | | 1 | | | | | | | | 1 | | | | | | | | 2 | | | 1 | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | 1 | | | | | | 1 | | 1 | | 1 | | | | | | | | 1 | | | 4 | 2 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | + | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Peridontal Tissue, Inflammation | | + | | | | | | | | | | | | | | | | | | | | | | 2 | |

females (cont...)

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 67

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 |
|--------------------------------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | |
| | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | |
| | 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 9 | 5 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 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 | |
| | females (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Cardiomyopathy
Endocardium, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | 1 | 2 | 2 | 3 | | 2 | 2 | 2 | | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic
Hypertrophy | | | | | 4 | | | | | | 2 | | 1 | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| Zona Fasciculata, Hyperplasia | | | 2 | 1 | | | | | | 1 | 1 | | | | | | 1 | 1 | | | | | | | 1 | |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic
Atrophy
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | M | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | | |
| 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | | |
| 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 9 | 5 | 9 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Angiectasis | 2 | | | 3 | | | | | | | | | | | | | | 2 | 1 | | | | | | |
| Pars Distalis, Hyperplasia | | | 4 | | 4 | 2 | 4 | 1 | 4 | 2 | | 3 | 1 | 1 | | | 1 | | 1 | 1 | | | 3 | 4 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C-cell, Hyperplasia | | 2 | 2 | | | | | | 2 | 2 | 3 | | | 1 | | | | | 1 | 4 | 2 | | 1 | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | 1 | | | | | | | | 4 | | | | 4 | 4 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Endometrium, Hyperplasia, Cystic | | | 1 | | | | | | | | | | | | | | | 1 | | 1 | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | 2 | | | | | 3 | 2 | | 2 | 2 | | | | 1 | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | | |
| | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | |
| | 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 5 | 9 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | females (cont...) | |
| | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Myelofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node
Deep Cervical, Infiltration Cellular,
Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Histiocytic
Pigmentation, Hemosiderin
Capsule, Fibrosis
Lymphoid Follicle, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 2 | 2 | | 2 | 1 | 1 | 1 | 1 | | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | | | 1 | 1 | 1 | | 2 | 1 | 2 | | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 |
| Thymus
Atrophy | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| | 3 | 3 | 4 | 4 | 4 | 3 | | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | | 3 | 4 | 3 | 3 | 3 | 3 | 2 |

INTEGUMENTARY SYSTEM

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

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| | 7 7 7 7 7 7 7 7 7 7 6 7 7 7 5 3 7 7 7 7 7 7 6 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
0 MG/KG | 2 2 2 3 3 3 2 3 3 2 5 2 2 3 6 9 3 3 2 3 2 2 2 3 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 9 8 0 0 0 9 0 0 9 0 9 9 0 1 7 0 0 9 0 9 9 5 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 MG/KG | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 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 |

females
(cont...)

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone
Femur, Osteopetrosis | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle
Atrophy | +
3 | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Brain
Infiltration Cellular, Mononuclear Cell
Cerebrum, Necrosis | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve
Radial, Ulnar, Degeneration | +
2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord | + | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Larynx
Foreign Body | +
X | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 71

| | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | |
| | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | |
| | 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 5 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Alveolar Epithelium, Hyperplasia | 1 | | | | 1 | 1 | | 1 | | | | | | | | 2 | | | | | | | | | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 | 1 | 1 | | | | | 1 | | | | 1 | | | 1 | | | | | | | | 1 | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Inflammation | | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

females (cont...)

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | 3 | | | | | | | | | | | | | | | | 3 | | | |
| Optic Nerve, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | 4 | | | | | | | | | | | | | | | | 4 | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked
Page 72

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | | |
| 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 6 | 9 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | | |
| 8 | 9 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 9 | 9 | 9 | 5 | 9 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | 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 | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | |
| Nephropathy | 1 | 2 | 1 | 1 | 1 | | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Papilla, Transitional Epithelium, Hyperplasia | | | | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation | | | | | 2 | | | | | | | | | | | | 2 | | | | | | | | | |
| Pelvis, Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Hyperplasia, Atypical | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Infarct | | | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Calculus Gross Observation | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia, Adenomatous | | | | | 4 | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 73

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | | |
| | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | |
| | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Parasite Metazoan | | | | | | | X | | | | | | | | | | | X | | X | | | | | | 5 | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Basophilic Focus | X | X | X | X | X | | X | X | X | X | X | X | X | X | | | X | X | X | X | X | | X | | | 46 | | |
| Clear Cell Focus | | | | | | X | | | | | | | | | | | | X | | | | | | | | 6 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Eosinophilic Focus | X | X | | | | X | | X | X | X | X | | | | X | | | X | | | X | X | | | | 16 | | |
| Fatty Change, Focal | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | 5 | 1.2 | |
| Hematopoietic Cell Proliferation | | | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | 6 | 1.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | X | | | | X | | | 4 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 | * TOTALS |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----------|
| | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | | | | |
| | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | | | | |
| | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 | | | | |
| Inflammation | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 43 1.1 | |
| Mixed Cell Focus | | X | | | | | | | | X | X | | | | | | | | | | | | | | | | | 5 | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | |
| Bile Duct, Hyperplasia | | | | | 2 | | 1 | 2 | | | | 1 | | | | | | | | 1 | | 3 | 1 | | | | | 19 1.3 | |
| Mesentery | | + | | | | + | | | | | | | | | | + | | + | | | | | | | | | | 9 | |
| Fat, Necrosis | | 3 | | | | 1 | | | | | | | | | | 1 | | 3 | | | | | | | | | | 9 1.6 | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Atrophy | 1 | | | 1 | | 1 | | | 1 | | | | 1 | 1 | | | | | | 3 | | | | 1 | | | | 16 1.4 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 | |
| Acinus, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 | |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Inflammation | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 2.0 | |
| Necrosis | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 | |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Peridontal Tissue, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

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 | | |
| | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | |
| | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | |
| | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 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 | * TOTALS |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Blood Vessel Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Heart Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 47 | 1.8 |
| Endocardium, Hyperplasia | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | | 1 | 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 3.0 |
| Degeneration, Cystic | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | | | 5 | 2.0 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Necrosis | | | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | 2 | 1.5 |
| Zona Fasciculata, Hyperplasia | | | 1 | | | | | | | | | 1 | | | | | 3 | | | | | | 1 | | | 11 | 1.3 |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 | 1.5 |
| Islets, Pancreatic Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|------------|
| | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 2 | 8 | |
| | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | 2 | 8 | |
| | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | 2 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 6 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| Myelofibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Deep Cervical, Infiltration Cellular,
Histiocyte | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |
| Lymph Node, Mesenteric
Atrophy | + | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 2.0 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 2.0 |
| Hematopoietic Cell Proliferation
Hyperplasia, Histiocytic
Pigmentation, Hemosiderin
Capsule, Fibrosis
Lymphoid Follicle, Atrophy | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | 1 | 1 | 2 | | 1 | 2 | | 1 | 42 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.4 | 4.0 |
| | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | | 2 | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | 44 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 | 1.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | | | 48 | 3.0 |
| Atrophy | 3 | 3 | 3 | 3 | 2 | 3 | 3 | | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 47 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|--|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | | |
| | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | | | |
| | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | | |
| | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | | |
| ----- | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
0 MG/KG | 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 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Femur, Osteopetrosis | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | 1 | | 3 | 1.0 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|-----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Cerebrum, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Radial, Ulnar, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|--|
| Larynx | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Page 79

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 |
| | | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 |
| | | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 |
| FISCHER 344 RATS FEMALE | 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 MG/KG | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|---|---|---|--|--|--|--|---|---|---|---|--|---|--|---|-----------|------------|------------|-----------|------------|------------|------------|------------|--|
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Inflammation | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4 | 1.0 | | | | | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | 1 | 1 | | | | | | | 1 | 1 | | | | | | | 1 | 10 | 1.1 | | | | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 | 1 | | | | 1 | | | | | | | 1 | 1 | | | | | | 1 | 14 | 1.0 | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | |
| Foreign Body | | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Olfactory Epithelium, Inflammation | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 1.0 | | |
| Respiratory Epithelium, Inflammation | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|-----------|----------|------------|
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Fibrosis | | | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lens, Cataract | | | | | | | | | | | | | | | | | | 4 | | | | | | | | 3 | 3.3 |
| Optic Nerve, Degeneration | | | | | | | | | | | | | | | | | | 3 | | | | | | | | 1 | 3.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | 4 | | | | | | | | 3 | 4.0 |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| DAY ON TEST | | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 |
| | | 2 | 2 | 7 | 8 | 8 | 3 | 3 | 3 | 3 | 2 | 9 | 3 | 2 | 2 | 3 | 5 | 9 | 6 | 2 | 3 | 2 | 2 | 8 | 7 | 2 | 8 |
| | | 8 | 8 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 9 | 9 | 0 | 9 | 4 | 8 | 8 | 0 | 8 | 9 | 0 | 2 | 8 | 8 |
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 MG/KG | 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 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 | * TOTALS |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Accumulation, Hyaline Droplet | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 39 1.0 |
| Nephropathy | | 2 | 2 | | 1 | | 2 | | 2 | 2 | 1 | | 2 | 1 | 1 | 2 | | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 42 1.3 |
| Papilla, Necrosis | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Papilla, Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pelvis, Inflammation | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.7 |
| Pelvis, Transitional Epithelium, Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal Tubule, Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Calculus Gross Observation | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Transitional Epithelium, Hyperplasia, Adenomatous | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|---|
| | 7 | 7 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | | |
| | 3 | 3 | 8 | 7 | 1 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 7 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 0 | 5 | |
| | 0 | 0 | 6 | 6 | 8 | 0 | 9 | 2 | 0 | 8 | 0 | 0 | 0 | 8 | 9 | 1 | 9 | 6 | 6 | 0 | 4 | 8 | 0 | 9 | 1 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | | |
| | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Muscularis, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | X | X | | | | | X | X | | | | | | | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | X | | | X | X | | | X | X | X | X | X | X | | X | | | X | X | X | X | X | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | X | | X | X | | | | | X | | | | | | | X |
| Fatty Change, Focal | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | 1 | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|
| | 7 7 5 4 6 5 7 3 7 5 7 7 6 7 7 7 7 5 7 5 6 6 7 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
1250 MG/KG
ANIMAL ID | 3 3 8 7 1 0 2 2 3 9 3 3 7 2 2 0 2 0 2 3 4 1 4 0 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 0 6 6 8 0 9 2 0 8 0 0 0 8 9 1 9 6 6 0 4 8 0 9 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | 1 | | | | 1 | 1 | 1 | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 2 | 3 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Centrilobular, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 3 | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Epithelium, Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 83

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 5 4 6 5 7 3 7 5 7 7 6 7 7 7 7 5 7 5 6 6 7 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
1250 MG/KG
ANIMAL ID | 3 3 8 7 1 0 2 2 3 9 3 3 7 2 2 0 2 0 2 3 4 1 4 0 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 0 6 6 8 0 9 2 0 8 0 0 0 8 9 1 9 6 6 0 4 8 0 9 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1250 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1250 MG/KG
ANIMAL ID | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1250 MG/KG
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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 2 2 2 1 1 1 2 2 2 2 1 1 2 1 2 2 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium, Thrombosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Zona Fasciculata, Hyperplasia | 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Angiectasis | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 4 1 1 1 2 3 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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TDMS No. 20005 - 05
 Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | |
| | 3 | 3 | 8 | 7 | 1 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 7 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 0 | 5 |
| | 0 | 0 | 6 | 6 | 8 | 0 | 9 | 2 | 0 | 8 | 0 | 0 | 0 | 8 | 9 | 1 | 9 | 6 | 6 | 0 | 4 | 8 | 0 | 9 | 1 |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Ovary
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Uterus
Inflammation
Thrombosis
Cervix, Cyst, Multiple
Endometrium, Hyperplasia, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| | | | | | 1 | | | | | | | | | | | 1 | | | | | | 1 | 4 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | 3 | | 1 | | | | | 1 | | 3 | | | 4 | 4 | 4 | | 1 | 2 | | 2 |
| Lymph Node
Deep Cervical, Infiltration Cellular,
Histiocyte
Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 x .. Lesion present
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 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| | 7 | 7 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | | | |
| | 3 | 3 | 8 | 7 | 1 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 7 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 0 | 5 | | |
| | 0 | 0 | 6 | 6 | 8 | 0 | 9 | 2 | 0 | 8 | 0 | 0 | 0 | 8 | 9 | 1 | 9 | 6 | 6 | 0 | 4 | 8 | 0 | 9 | 1 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1250 MG/KG | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | females (cont...) |

Lymph Node, Mesenteric

+ +

Spleen
 Hematopoietic Cell Proliferation
 Pigmentation, Hemosiderin

+
 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 2
 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 2 1 2 1

Thymus
 Atrophy

+
 3 3 4 3 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 2 4 3

INTEGUMENTARY SYSTEM

Mammary Gland
 Hyperplasia

+ +

Skin
 Epidermis, Cyst Epithelial Inclusion

+ +

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | |
| | 3 | 3 | 8 | 7 | 1 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 7 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 0 | 5 |
| | 0 | 0 | 6 | 6 | 8 | 0 | 9 | 2 | 0 | 8 | 0 | 0 | 8 | 9 | 1 | 9 | 6 | 6 | 0 | 4 | 8 | 0 | 9 | 1 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | |
| | 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 |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | 1 | | | | | | | | | 2 | 2 | | | | | 1 | 1 | | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Alveolus, Infiltration Cellular, Histiocyte | | | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | |
| Nasolacrimal Duct, Inflammation | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Inflammation | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| | 7 | 7 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | | | | |
| | 3 | 3 | 8 | 7 | 1 | 0 | 2 | 2 | 3 | 9 | 3 | 3 | 7 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 0 | 5 | | | |
| | 0 | 0 | 6 | 6 | 8 | 0 | 9 | 2 | 0 | 8 | 0 | 0 | 0 | 8 | 9 | 1 | 9 | 6 | 6 | 0 | 4 | 8 | 0 | 9 | 1 | | | |
| FISCHER 344 RATS FEMALE
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 |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | females (cont...) |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cornea, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cornea, Inflammation | | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | 1 | 1 | | 1 | 1 | | |
| | 1 | 1 | | | | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | 1 | 1 | 1 | | 1 | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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TDMS No. 20005 - 05
 Test Type: CHRONIC
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Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 |
| | 8 | 6 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 4 | 3 | 3 | 0 | 2 | 2 |
| | 0 | 7 | 9 | 0 | 9 | 0 | 9 | 5 | 0 | 0 | 9 | 9 | 8 | 9 | 0 | 4 | 3 | 0 | 8 | 4 | 0 | 0 | 9 | 9 | 8 |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 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 | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Muscularis, Degeneration | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parasite Metazoan | | | X | | | X | X | | | | | X | | | | | | | X | | | | | | 9 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Basophilic Focus | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | | X | X | X | X | | | X | X | 38 |
| Clear Cell Focus | | | | | | | | | X | | | | | | | | X | | | | | | | X | 3 |
| Eosinophilic Focus | | | | | | X | | | | X | | X | | | X | | | | | | X | | | | 10 |
| Fatty Change, Focal | | | | | | | | | | | | 1 | | | | | | | | | | | | | 2 1.0 |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | | | | | | | | | | | 4 2.5 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | 1 | | 1 | 1 | | | | | 1 | | 1 | | 6 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
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 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 | |
| | 8 | 6 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 4 | 3 | 3 | 0 | 2 | 2 | |
| | 0 | 7 | 9 | 0 | 9 | 0 | 9 | 5 | 0 | 0 | 9 | 9 | 8 | 9 | 0 | 4 | 3 | 0 | 8 | 4 | 0 | 0 | 9 | 9 | 8 | |

FISCHER 344 RATS FEMALE
ANIMAL ID
1250 MG/KG

| | 0 | 0 | 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 |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | X | | | | | | | | | | | | 4 |
| Inflammation | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | 38 1.1 |
| Mixed Cell Focus | | | | | | | | | | | X | X | | | | | | | | | | | | | | | 3 |
| Necrosis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Pigmentation, Hemosiderin | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | 3 1.0 |
| Bile Duct, Hyperplasia | 1 | | | | | 1 | | | 1 | 1 | | 1 | 2 | | | 1 | | | | | | | | 1 | | | 19 1.2 |
| Centrilobular, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Mesentery | | | + | + | | | | | | + | | | | + | | | | | | | | | | | | | 8 |
| Fat, Necrosis | | | 3 | 1 | | | | | | 3 | | | | | 3 | | | | | | | | | | | | 8 2.3 |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | 1 | 1 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 | | | 11 1.2 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Epithelium, Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
Page 90
1-4 .. Lesion qualified as:
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2) Mild 4) Marked

TDMS No. 20005 - 05
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 Ginseng
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 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 | 0 | 0 | 0 | 0 |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 | | | |
| | 8 | 6 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 4 | 3 | 3 | 0 | 2 | 2 | | | |
| | 0 | 7 | 9 | 0 | 9 | 0 | 9 | 5 | 0 | 0 | 9 | 9 | 8 | 9 | 0 | 4 | 3 | 0 | 8 | 4 | 0 | 0 | 9 | 9 | 8 | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1250 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | | 2 | 2 | | 2 | 2 | | 1 | 1 | | | 43 1.4 |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | 2 | | 1 | | | | | | 1 | | 6 1.2 |
| Hypertrophy | | | | | 1 | | | | | | 1 | | | | | | | 1 | | | | | | 2 | | | | 6 1.5 |
| Zona Fasciculata, Hyperplasia | 2 | | 2 | | | 1 | | | | | | | | 1 | | | | 2 | | | | 1 | | | | | | 10 1.4 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 45 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 2 1.5 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pars Distalis, Hyperplasia | | | 3 | | | 2 | | | 2 | 3 | 3 | | 2 | 3 | | | | 2 | | | | 1 | 1 | | 4 | 1 | | 19 2.2 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C-cell, Hyperplasia | 1 | | | 1 | 1 | 1 | 1 | | 1 | 3 | | | 1 | | | 1 | | 1 | 2 | | | | | | | | | 18 1.2 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 91

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------|
| | 6 6 7 7 7 7 7 0 7 7 7 7 6 7 6 5 7 7 6 7 7 0 7 7 | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
1250 MG/KG
ANIMAL ID | 8 6 2 3 2 3 2 0 3 3 2 2 2 3 3 1 3 3 2 4 3 3 0 2 2 | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 7 9 0 9 0 9 5 0 0 9 9 8 9 0 4 3 0 8 4 0 0 9 9 8 | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 3 | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 7 7 7 8 8 8 8 8 8 8 8 8 8 8 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 |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|--------------|
| Clitoral Gland Inflammation | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 1 1.0 |
| Ovary Cyst | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 5 3.4 |
| Uterus Inflammation | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 1 2.0 |
| Uterus Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Uterus Cervix, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Uterus Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 5 2.2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|---------------|
| Bone Marrow Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 18 2.2 |
| Lymph Node Deep Cervical, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1 2.0 |
| Lymph Node Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 2.0 |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 | |
| | 8 | 6 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 4 | 3 | 3 | 0 | 2 | 2 | |
| | 0 | 7 | 9 | 0 | 9 | 0 | 9 | 5 | 0 | 0 | 9 | 9 | 8 | 9 | 0 | 4 | 3 | 0 | 8 | 4 | 0 | 0 | 9 | 9 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1250 MG/KG | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hematopoietic Cell Proliferation | 2 | 1 | | 2 | 2 | | 1 | | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | | 2 | 1 | 41 1.3 |
| Pigmentation, Hemosiderin | | 1 | 1 | | 1 | 1 | 2 | | 2 | 1 | 1 | 2 | | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | 2 | 1 | 41 1.2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | 4 | 3 | 3 | 3 | 3 | 4 | 3 | | 2 | 3 | 3 | 3 | 3 | 3 | | 3 | 3 | 44 3.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | 2 | | | | | | | 3 | | | | | | | | | | | | 2 2.5 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Epidermis, Cyst Epithelial Inclusion | | | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 93

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 |
|--------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 |
| | | 8 | 6 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 4 | 3 | 3 | 0 | 2 | 2 |
| | | 0 | 7 | 9 | 0 | 9 | 0 | 9 | 5 | 0 | 0 | 9 | 9 | 8 | 9 | 0 | 4 | 3 | 0 | 8 | 4 | 0 | 0 | 9 | 9 | 8 |
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1250 MG/KG | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 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 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cornea, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | |
| Nephropathy | | | 1 | 1 | 3 | | 2 | | 1 | 1 | 1 | 1 | 1 | | 1 | 2 | 3 | 1 | 1 | 1 | | 1 | 1 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 0 | 7 | 7 | 5 | | | |
| | 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | |
| | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 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 | 5 | |

females
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | X | X | | | | | X | | | | X | | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | 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 |
| Clear Cell Focus | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Cytoplasmic Alteration, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | X | | | | X | | | | | | X | X | | X | X | | | | | | | |
| Fatty Change, Diffuse | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | 1 | | 1 | | | 1 | | | | | | | | | | | | 1 |
| Hepatodiaphragmatic Nodule | | | | | | X | | | | | | | | | | X | | | | | | | | | | |
| Inflammation | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 |
| Mixed Cell Focus | | | X | | | | | | | | | | | | X | | | | X | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
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 1) Minimal 3) Moderate
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TDMS No. 20005 - 05
 Test Type: CHRONIC
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Ginseng
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 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 | 5 | | |
| 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | | |
| 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 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 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|--|--|---|--|---|---|--|--|--|---|--|--|---|---|--|---|--|---|---|---|---|--|--|
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | 1 | | 1 | | | | 1 | | 1 | 2 | | | | 2 | | | 1 | 1 | | | | 1 | 1 | | | | |
| Centrilobular, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | 2 | | 3 | | 3 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 1 | | 1 | | | | | | | | | | | | | | | | 1 | | 2 | | | 1 | 1 | 1 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|---|---|---|--|--|--|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | | | 2 | 2 | 2 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 97

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | |
| | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 0 | 7 | 7 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | 0 | 0 | 0 | 0 | 0 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 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 | | | | | | | |

females
(cont...)

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Degeneration, Cystic
Hypertrophy
Zona Fasciculata, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | 1 | | |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + |
| Pituitary Gland
Pars Distalis, Angiectasis
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | 3 | | 2 | 2 | 1 | | 2 | 1 | | | 3 | | | | | | | | 2 | | 2 | | | | | | | | | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | 1 | | | | | | 3 | | | 1 | | 1 | | | | | | 1 | | 1 | | | | | | | 2 | 1 | 1 | | | |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 98

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

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 | 0 | 0 | 0 |
|--------------------------------|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|---|
| | | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 0 | 7 | 7 | 5 | | | | |
| | | 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | |
| | | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | |
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 2500 MG/KG | 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 | 2 | |
| | 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 | females (cont...) | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ovary Cyst | + | + | + | + | + | + | + | 3 | + | + | 4 | + | 4 | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus Endometrium, Hyperplasia, Cystic | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 | + | + | + | + | + | + |
| Vagina Inflammation | | | | | | | | + | | | | | | | | | | | | | | | | | + | 2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | 1 | | | 1 | 2 | 3 | | | | | | 2 | | 1 | 1 | | | | | | 2 | |
| Lymph Node Deep Cervical, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 Page 99
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|---|
| | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 0 | 7 | 7 | 5 | | | |
| | 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | | |
| | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 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 | | females (cont...) | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen Hematopoietic Cell Proliferation | 1 | 1 | 1 | 1 | 1 | 1 | | 3 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | | 1 | 1 | | | |
| Hyperplasia, Histiocytic Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | 1 | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | | 1 | 1 | 2 | | | |
| Thymus Atrophy | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | | 3 | 3 | 3 | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 100

TDMS No. 20005 - 05
 Test Type: CHRONIC
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 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 0 | 7 | 7 | 5 | | | | |
| | 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | | |
| | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 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 | | | females (cont...) |

Brain +

RESPIRATORY SYSTEM

| | |
|---|---|
| Lung | + |
| Congestion | 2 |
| Inflammation | 1 1 1 1 3 |
| Alveolar Epithelium, Hyperplasia | 1 1 |
| Alveolar Epithelium, Metaplasia, Squamous | 1 |
| Alveolus, Infiltration Cellular, Histiocyte | 1 1 1 1 1 1 1 1 1 |
| Nose | + |
| Foreign Body | X |
| Respiratory Epithelium, Inflammation | 1 |
| Trachea | + |

SPECIAL SENSES SYSTEM

| | |
|-------------------------------|---|
| Eye | + |
| Synechia | |
| Cornea, Fibrosis | |
| Cornea, Hyperplasia, Squamous | |
| Lens, Cataract | 2 2 |
| Optic Nerve, Degeneration | |
| Retina, Degeneration | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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TDMS No. 20005 - 05
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
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 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 0 | 7 | 7 | 5 | |
| 9 | 3 | 2 | 9 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 0 | 6 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 0 | | |
| 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 9 | 4 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | females
(cont...) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | |
| Nephropathy | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Papilla, Transitional Epithelium,
Hyperplasia | | | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 102

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 | 2 |
| | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 9 | 8 |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 4 | 5 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parasite Metazoan | | | | | | | | X | | | | X | X | | | | | | | | | | | | | 7 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Basophilic Focus | X | | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 46 | |
| Clear Cell Focus | | | | | | | X | | | | | X | | X | X | | | X | | | | | | | | 8 | |
| Cytoplasmic Alteration, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | 1.0 | |
| Eosinophilic Focus | | | | X | | | | X | X | X | | X | | X | | | | | | | | | | | | 12 | |
| Fatty Change, Diffuse | | | | 2 | | | | | | | | | | | | | | | | 1 | | | | | | 4 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 1.3 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1.0 | |
| Mixed Cell Focus | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 43 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 |
| 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 8 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|--------|---|-------|
| Necrosis | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | | |
| Bile Duct, Hyperplasia | | | | 3 | 1 | 1 | | | | | | | | | | | | | | 1 | 1 | 2 | 17 1.3 | | | |
| Centrilobular, Degeneration | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.5 | | | | |
| Oval Cell, Hyperplasia | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | 2 | 2 1.0 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | 6 | 6 1.8 | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | + | 1 | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 12 1.2 | | |
| Atrophy | | | | | | | | | | | 2 | 1 | 1 | | | | | | | | | | | 1 | 1 | 1 1.0 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 48 1.7 |
| Cardiomyopathy | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|---|--|
| | 0
7
2
8 | 0
2
7
5 | 0
7
3
0 | 0
7
2
9 | 0
7
3
0 | 0
1
2
9 | 0
7
2
9 | 0
5
8
6 | 0
7
2
8 | 0
7
2
9 | 0
7
2
9 | 0
6
4
6 | 0
7
3
0 | 0
7
3
0 | 0
4
5
9 | 0
6
8
0 | 0
7
2
9 | 0
6
8
0 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 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 | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|--------|-------|
| Adrenal Cortex
Degeneration, Cystic
Hypertrophy
Zona Fasciculata, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 4 1.3 | 1 1.0 | 7 1.3 |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 1.3 | | |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 | | |
| Parathyroid Gland | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 46 | | | |
| Pituitary Gland
Pars Distalis, Angiectasis
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 2.0 | 19 1.8 | 1 2.0 |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 17 1.6 | | |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 105

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| DAY ON TEST | 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | |
| | 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 | 2 | |
| | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 9 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 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 | * TOTALS |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 9 2.6 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 1.0 |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 18 1.7 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deep Cervical, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| 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 |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| | | 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 |
| | | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 8 |
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2500 MG/KG | 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 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | 1 | | | | | | | | | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Histiocytic | 1 | 1 | 2 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | | 2 | 1 | | 1 | 1 | 2 |
| Pigmentation, Hemosiderin | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | | | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked
Page 107

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| DAY ON TEST | 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 9 | 8 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Congestion | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 6 1.5 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | 2 | | 1 | | | | | | | | 2 | | | | | 1 | | 6 1.3 |
| Alveolar Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Alveolus, Infiltration Cellular, Histiocyte | | | | | | 1 | 1 | | 1 | | | | 1 | 1 | | 1 | | | | 1 | | | | | | | 15 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Respiratory Epithelium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Synechia | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Cornea, Fibrosis | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Cornea, Hyperplasia, Squamous | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Lens, Cataract | | | | | | | | | | | | | | 2 | | | | | | | 2 | | | | | | 4 2.0 |
| Optic Nerve, Degeneration | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | 1 2.0 |
| Retina, Degeneration | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | 2 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Page 108

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 | 0 | 0 |
|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| | 7 | 2 | 7 | 7 | 7 | 1 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 7 | 3 | 2 | 3 | 1 | 2 | 8 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 5 | 8 | 2 | 2 | 8 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 9 | 9 | 6 | 0 | 0 | 9 | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 9 | 8 | 8 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 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 | 0 | 0 | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infarct | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | | 41 1.0 |
| Nephropathy | | | 3 | 1 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 43 1.1 |
| Papilla, Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

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 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | |
| | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 9 | 0 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 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 | |

females
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Perforation | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Foreign Body | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Inflammation | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Necrosis | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | | | | X | | | | | | | X | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Basophilic Focus | X | | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X |
| Clear Cell Focus | | | | | X | | | | | | | X | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | X | | | | | X | X | | | | | | X | X | X | X | | | X | |
| Fatty Change, Diffuse | | | | | | | | | | | | | | 1 | 2 | 1 | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

TDMS No. 20005 - 05
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Ginseng
CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
Time Report Requested: 11:57:36
First Dose M/F: 01/21/04 / 01/22/04
Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 4 0 7 7 5 6 6 7 7 6 7 7 6 7 7 6 6 7 6 7 7 7 7 7 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
5000 MG/KG
ANIMAL ID | 6 6 3 2 5 9 6 2 0 8 2 3 8 3 3 3 1 2 2 2 2 2 2 3 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 1 0 9 2 9 3 9 1 8 8 0 4 0 0 9 8 9 4 9 9 9 9 0 9 | | | | | | | | | | | | | | | | | | | | | | | | |

| | 0 | 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 Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | X | | | | | | | | X | | X | | | | | | | | | | | | X |
| Inflammation | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mixed Cell Focus | | | | | | | | | | | | X | | | | | | | | | | | | | | X | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | | | | | | | | 1 | 1 | 1 | | | 1 | | | | | | | | | | | | 1 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | 3 | | | | | | | 1 | 1 | | 2 | | | | | | | | | | | | 3 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Epithelium, Cyst | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
l .. Insufficient tissue

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

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Page 111

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 4 |

FISCHER 344 RATS FEMALE

5000 MG/KG

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | | | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | | | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 1 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | 1 | | | | | | | | | | | | | | 1 | | | | | |
| Hypertrophy | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | 3 | 2 | | | | | | | | | | | | |
| Zona Fasciculata, Hyperplasia | | | | 1 | | | | 1 | 1 | 1 | | 1 | | | | | | | 1 | 1 | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Angiectasis | | | | | | | | | | 3 | 2 | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

Ginseng

CAS Number: 50647-08-0

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 4 |
| | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 9 | 0 | 9 |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 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 |

females (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 1 | | 2 | | | | 4 | | 1 | | | | | 1 | 2 | 3 | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Hyperplasia | | | 2 | 1 | | | | | 1 | | 1 | | 1 | | | 2 | | 1 | 1 | 1 | 2 | 1 | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ovary Cyst | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | 3 | 4 | | | 4 | | | | | | | | | 2 | | | | | | | 1 | | |
| Uterus Endometrium, Hyperplasia, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Myelofibrosis | 2 | 2 | | | | | | | | 1 | | | | | 2 | 3 | 1 | | 3 | 2 | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 113

TDMS No. 20005 - 05

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

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 |
| | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 4 |
| | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 0 | 9 |
| FISCHER 344 RATS FEMALE
ANIMAL ID
5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lymph Node
Mediastinal, Hyperplasia, Lymphoid
Mediastinal, Infiltration Cellular, Plasma
Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 4 |
| | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 0 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

MUSCULOSKELETAL SYSTEM

Bone +

NERVOUS SYSTEM

Brain Infiltration Cellular, Mononuclear Cell +

RESPIRATORY SYSTEM

Larynx Foreign Body

Lung Congestion +

Fibrosis 1

Hemorrhage

Inflammation 3 1 1

Mineralization 3

Alveolar Epithelium, Hyperplasia 4 1 1 1

Alveolar Epithelium, Metaplasia, Squamous

Alveolus, Infiltration Cellular, Histiocyte 1 1 1 1 1 1

Nose +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
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 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 4 |
| | | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| | | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 0 | 9 |
| FISCHER 344 RATS FEMALE | 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 | |
| 5000 MG/KG | 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 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Olfactory Epithelium, Inflammation | | | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 |
| Respiratory Epithelium, Inflammation | | | | | | | | | | 1 | | | | | 1 | | | | | | | 2 | 2 | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cornea, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Cornea, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | |
| Nephropathy | 1 | 1 | 1 | 2 | | | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 4 | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Pelvis, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Renal Tubule, Infarct | | | | | | | | | | | | | | | | | | | | | | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Page 116

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 |
| | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 4 |
| | 6 | 6 | 3 | 2 | 5 | 9 | 6 | 2 | 0 | 8 | 2 | 3 | 8 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 1 | 1 | 0 | 9 | 2 | 9 | 3 | 9 | 1 | 8 | 8 | 0 | 4 | 0 | 0 | 9 | 8 | 9 | 4 | 9 | 9 | 9 | 9 |
| FISCHER 344 RATS FEMALE
ANIMAL ID
5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | + |
| | | | | | | | | | | | | | | | | | | | | | | | 2 |

females (cont...)

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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 A .. Autolysis precludes evaluation
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 1) Minimal 3) Moderate
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 Page 117

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
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 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

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

| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| FISCHER 344 RATS FEMALE
5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 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 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Periesophageal Tissue, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parasite Metazoan | | | | | | X | | | | | | X | | | | | | | | | | | | | 4 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 1.5 |
| Basophilic Focus | X | X | X | X | | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 45 |
| Clear Cell Focus | X | | | | | | | | X | | | | | X | | | | | | | | | X | | 6 |
| Eosinophilic Focus | | | | | | | X | | | | | | | | X | | X | | | | | | X | | 13 |
| Fatty Change, Diffuse | | | | | 2 | | | | | 2 | | | | | | | | | | | | | | | 5 1.6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | |
|-------------------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|---|---|---|---|---|
| | 0701 | 0703 | 0705 | 0706 | 0707 | 0708 | 0709 | 0710 | 0711 | 0712 | 0713 | 0714 | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | | 0727 | 0728 | 0729 | 0730 | 0731 | | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 5000 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 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 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|------------|------------|-----------|------------|------------|------------|
| Hematopoietic Cell Proliferation | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 | | | | | |
| Hepatodiaphragmatic Nodule | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | | |
| Inflammation | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | | 1 | 1 | 1 | 45 | 1.1 | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| Necrosis | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 1.0 | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | 9 | 1.0 | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | | 6 | 2.2 | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 6 | 2.2 | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | 12 | 1.1 | | |
| Atrophy | | 1 | | 1 | | | | 1 | | | 1 | | | | | | 1 | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | 12 | 1.1 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | 50 | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | 50 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Epithelium, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 1 | | 3 | 1.7 | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | 50 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

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

| FISCHER 344 RATS FEMALE
5000 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Pars Distalis, Hyperplasia | 2 | | 1 | | | | 1 | 3 | 1 | | | | | 1 | 1 | 2 | 4 | 1 | 3 | | | | | | 4 | 1.9 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| C-cell, Hyperplasia | 1 | 1 | 3 | | | | 3 | | | | | | | | | 1 | | 1 | | | | | | | 2 | 1.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | | | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 | 2.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | | | | | | | 1 | | | | | | 2 | | | | | | | | | | | 7 | 2.4 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | 2 | | | | | 1 | | | | | 1 | | | | | | 2 | 4 | 1.5 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | 3 | 1 | 1 | | | 1 | | | 2 | 4 | | | | | | | 4 | 1 | | | | | | | 1 | 2.0 | |
| Myelofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 121

TDMS No. 20005 - 05

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ginseng

CAS Number: 50647-08-0

Date Report Requested: 07/23/2008

Time Report Requested: 11:57:36

First Dose M/F: 01/21/04 / 01/22/04

Lab: BAT

Table with columns for DAY ON TEST, ANIMAL ID, and FISCHER 344 RATS FEMALE 5000 MG/KG. Includes a row for * TOTALS.

Lymph Node
+ 4
Mediastinal, Hyperplasia, Lymphoid 1 3.0
Mediastinal, Infiltration Cellular, Plasma Cell 2 1 2.0

Lymph Node, Mandibular
M 0

Lymph Node, Mesenteric
+ 50
Atrophy 1 3.0
Hyperplasia, Lymphoid 2 2 2.0

Spleen
+ 50
Hematopoietic Cell Proliferation 2 1 2 1 1 1 1 2 1 2 2 1 1 3 1 1 1 1 2 38 1.4
Pigmentation, Hemosiderin 1 1 2 2 1 2 2 1 1 1 2 1 2 1 1 2 2 2 2 2 1 1 1 43 1.4
Red Pulp, Atrophy 1 4.0

Thymus
+ 50
Atrophy 3 3 3 3 3 3 3 3 3 4 3 3 4 3 3 3 3 4 3 3 4 4 4 3 3 50 3.1

INTEGUMENTARY SYSTEM

Mammary Gland
+ 50

Skin
+ 50
Ulcer 1 2.0
Epidermis, Atrophy 1 4.0
Subcutaneous Tissue, Inflammation 1 2.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20005 - 05
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Ginseng
 CAS Number: 50647-08-0

Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
 First Dose M/F: 01/21/04 / 01/22/04
 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 | 0 | 0 |
| | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 5 | 6 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 5 | 5 |
| | 0 | 3 | 7 | 1 | 0 | 3 | 2 | 6 | 9 | 7 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 4 | 7 | 7 | 3 | 2 | 2 | 4 | 4 |
| | 1 | 0 | 2 | 2 | 0 | 0 | 8 | 3 | 0 | 7 | 0 | 8 | 8 | 8 | 2 | 0 | 9 | 9 | 0 | 5 | 0 | 0 | 9 | 9 | 1 | 1 |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 MG/KG | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 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 | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 | |
| Olfactory Epithelium, Inflammation | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.3 |
| Respiratory Epithelium, Inflammation | 1 | | | | | | | 1 | | | | | | | | 2 | | | | | | | | | | 2 | 2 | 10 | 1.5 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cornea, Fibrosis | | | | | | | | | | | | 2 | | | | | 3 | | | | | | | | | | | 2 | 2.5 |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 2 | 2.0 |
| Cornea, Pigmentation, Hemosiderin | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lens, Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Retina, Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|------------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 46 | 1.1 |
| Nephropathy | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 39 | 1.2 | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Pelvis, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Renal Tubule, Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

