

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																								
	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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 2) Mild 4) Marked

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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	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																								
	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

males
(cont...)

Stomach, Glandular Erosion	+																								
Inflammation	+																								
Necrosis	+																								

CARDIOVASCULAR SYSTEM

Blood Vessel Carotid Artery, Thrombosis	+																								
Heart Cardiomyopathy	+																								
Fibrosis	+																								
Atrium, Thrombosis	+																								
Epicardium, Inflammation	+																								

ENDOCRINE SYSTEM

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

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DAY ON TEST	0																									males (cont...)
	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 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	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	

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																							2	
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				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
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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		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	6	6	5	7	7	5	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	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	
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	
		0	0	0	0	0	0	0	0	0	0	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...)

Epithelium, Metaplasia, Squamous

SPECIAL SENSES SYSTEM

Eye	+ +																								
Cornea, Inflammation																									
Lens, Cataract																									
Retina, Degeneration																									
Retina, Fibrosis																									
Retina, Mineralization																									
Harderian Gland	+ +																								

URINARY SYSTEM

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

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DAY ON TEST	0 0																								* TOTALS	
	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	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
Perforation																							X		1
Muscularis, Degeneration																									2
Muscularis, Hemorrhage																									2
Muscularis, Inflammation																									X
Periesophageal Tissue, Foreign Body																									4
Periesophageal Tissue, Inflammation																									
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parasite Metazoan																X		X					X		12
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																									1
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																							2		2
Basophilic Focus			X	X				X	X	X		X	X	X	X	X	X	X				X		21	

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	DAY ON TEST																							* TOTALS		
	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	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	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	
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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	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
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	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																									

Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Erosion																										1	1 1.0	
Inflammation																										1	2 1.5	
Necrosis																											2	1.5

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Carotid Artery, Thrombosis																											2	1 2.0			
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Cardiomyopathy	3	2	3	2	2	2	1	2	2	2	2	2	1	3	2	2	3	2	3	3							1	1 1 1 3	48 2.1		
Fibrosis																														1	2.0
Atrium, Thrombosis							1							1	3				1										2	8 1.9	
Epicardium, Inflammation																													2	1 2.0	

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Degeneration, Cystic																															1 1.0
Hypertrophy																														1	1.0
Zona Fasciculata, Hyperplasia				1							1				1		1			4									1	9 1.3	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Hyperplasia														1							2								2	9 2.0	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					

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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	
	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
																									* TOTALS

Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia																										1 2.0	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Pars Distalis, Angiectasis									2								1									2 1.5	
Pars Distalis, Hyperplasia																1			2	3	1	3				16 2.0	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
C-cell, Angiectasis																											1 2.0
C-cell, Hyperplasia				1		1		4		1	2		1				1				1			2		14 1.6	
Follicular Cell, Hyperplasia																										1 2.0	

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation																											1 2.0	
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																												1 4.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation		1		2		2	1	3		2	1		3	2		1						1		2	2		26 1.8	
Epithelium, Hyperplasia																									4		3 2.0	

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+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

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2) Mild 4) Marked

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

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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
FISCHER 344 RATS MALE		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			
0 MG/KG		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			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	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	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

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	M	M	M	1	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy																													3 2.7
Ectasia													2																1 2.0

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	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	
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	
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	3	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	

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Fibrosis																										1 2.0
Hematopoietic Cell Proliferation	1	2	1	1	1			1	1	1	1				1	2				2	2	1		1	29 1.2	
Pigmentation, Hemosiderin	1		1	1		1		1	1		1	1		1		1			1			1	1	1	30 1.0	
Thrombosis											3															1 3.0
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	3	2	3	4	3	3		4	4	2	4	4	3	3	3	3	3	3	3	3	3	4	4	4	3	48 3.3
Inflammation																							2			1 2.0

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Ulcer																2										1 2.0
Epidermis, Cyst Epithelial Inclusion																							X			2
Epidermis, Hyperplasia																3	2									2 2.5
Subcutaneous Tissue, Inflammation, Histiocytic																	3									1 3.0

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cranium, Osteopetrosis																											1 2.0
Femur, Osteopetrosis																										2	1 2.0

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	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		
<hr/>																											
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
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	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

NERVOUS SYSTEM

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

RESPIRATORY SYSTEM

Larynx																												1		
Inflammation																													1	2.0
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation							1						1																4	2.0
Inflammation, Chronic Active																													1	1.0
Thrombosis				1											1														3	1.0
Alveolar Epithelium, Hyperplasia							1																						10	1.6
Alveolar Epithelium, Metaplasia, Squamous						2																							2	1.5
Alveolus, Infiltration Cellular, Histiocyte	1			1											2														15	1.3
Arteriole, Hypertrophy						1																							1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Foreign Body				X											X														7	
Thrombosis																2													1	2.0
Nasolacrimal Duct, Foreign Body																													1	
Nasolacrimal Duct, Inflammation																													1	1.0
Respiratory Epithelium, Inflammation						2									2														3	1.8
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

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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
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	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

Epithelium, Metaplasia, Squamous 2 1 2.0

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cornea, Inflammation												2													1 2.0
Lens, Cataract																	2								2 2.5
Retina, Degeneration												1							3						4 2.5
Retina, Fibrosis										1															1 1.0
Retina, Mineralization																			1						1 1.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Accumulation, Hyaline Droplet							1													3					2 2.0	
Mineralization	1	1			1		1	1				1	1	1	1			1			1		1		26 1.0	
Nephropathy	3	1	3	1	2		1	2	1	3	3	2	1	2	2	1	1	2	2	2		1	1	3	3	47 1.9
Papilla, Transitional Epithelium, Hyperplasia											1														1 1.0	
Renal Tubule, Hyperplasia, Atypical																								2	1 2.0	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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DAY ON TEST		7	7	6	7	7	7	7	7	6	7	7	6	7	7	7	7	4	5	5	7	7	7	7	7
DAY ON TEST		2	2	4	2	2	2	2	2	9	2	2	5	2	2	2	2	3	3	2	2	2	2	2	2
DAY ON TEST		8	8	5	7	6	8	7	8	7	9	9	8	9	9	7	9	8	5	9	7	7	7	7	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	
	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	
	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	
	ANIMAL ID	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	
	ANIMAL ID	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
1250 MG/KG																									

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parasite Metazoan	X				X						X				X				X	X	X			
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis					2															1	1	1		
Basophilic Focus		X		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				X		X	X		
Degeneration, Cystic			1									1							1					
Eosinophilic Focus							X							X										
Fatty Change, Diffuse										3								1	2					
Hematopoietic Cell Proliferation																			1					1
Hepatodiaphragmatic Nodule												X		X	X		X	X						
Inflammation	1	1		1	1	1	1		1	1	1		1	1	1	1			1		1	1	1	1

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

DAY ON TEST	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																								
FISCHER 344 RATS MALE 1250 MG/KG	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																								
ANIMAL ID	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...)

CARDIOVASCULAR SYSTEM

Blood Vessel	+ +																								
Heart	+ +																								
Cardiomyopathy	2 2 2 3 2 2 2 2 1 2 3 2 2 2 2 2 1 1 1 3 3 2 2 2																								
Atrium, Thrombosis																									
Valve, Thrombosis	3 1																								

ENDOCRINE SYSTEM

Adrenal Cortex	+ +																								
Hypertrophy																									
Necrosis	2																								
Zona Fasciculata, Hyperplasia	1 1 2 1																								
Adrenal Medulla	+ +																								
Hyperplasia	1 2 3																								
Infiltration Cellular, Lymphocyte																									
Islets, Pancreatic	+ +																								
Hyperplasia	1																								
Parathyroid Gland	+ +																								
Hyperplasia	1																								
Pituitary Gland	+ +																								

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 + .. 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
	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 1250 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	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...)

Pars Distalis, Angiectasis			2					1																		
Pars Distalis, Hyperplasia		1		3				1				3		1	3		1	1						2		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C-cell, Hyperplasia		4	1	4		1										2			1	1	2					
Follicular Cell, Hyperplasia														1												

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis								3																		
Inflammation																										
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation		2				2		1	1	2		1		1		1	2		1		2		2		2	
Epithelium, Hyperplasia				1	2			1							3										2	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Interstitial Cell, Hyperplasia			4			2												2	1		2				1	

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TDMS No. 20005 - 05
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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
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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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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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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	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	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	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	7	8	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	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
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
	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	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	5

males (cont...)

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrosis																											
Hemorrhage																											
Inflammation			3									3											2				
Alveolar Epithelium, Hyperplasia		1											1			2											
Alveolus, Infiltration Cellular, Histiocyte					1					2	1	1		2		1						1					
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body					X	X						X													X		
Olfactory Epithelium, Inflammation																											
Respiratory Epithelium, Hyperplasia																											2
Respiratory Epithelium, Inflammation				1	1	1						2															2
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lens, Cataract					1																							
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Metaplasia																												

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accumulation, Hyaline Droplet																											3

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	DAY ON TEST																									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	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	
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	0	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	
Amyloid Deposition																									2	
Mineralization	1	1		1	1							1	1		1		1	1	1	1	1	1	1	1		
Nephropathy	2	3	2	2	3	3	3	3	2	1	1	1	2	2	2	2	2	1	1	2	2	3	2	2	2	
Cortex, Cyst Papilla, Transitional Epithelium, Hyperplasia																										
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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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	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	1	1	1	1	4

FISCHER 344 RATS MALE 1250 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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	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
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parasite Metazoan				X	X									X												10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis				1																	1					6 1.2
Basophilic Focus	X	X	X				X		X		X									X	X	X				23
Clear Cell Focus	X	X	X		X		X		X											X						22
Degeneration, Cystic			1		1	1					2															7 1.1
Eosinophilic Focus	X	X	X										X										X			7
Fatty Change, Diffuse																										3 2.0
Hematopoietic Cell Proliferation				1					1								1	1								6 1.0
Hepatodiaphragmatic Nodule																								X		6
Inflammation	1	1	1	1	1	1	1		1		1					1	1			1		1	1	1	1	34 1.0

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Ginseng

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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	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	1	8	7	7	9	4
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	
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	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	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			

Mixed Cell Focus																									1													
Necrosis																									4	1.8												
Pigmentation, Hemosiderin																									4	1.5												
Bile Duct, Hyperplasia	2	2	2	2	2	2	2	2	2	2	3	2	2	2	3	1	2	3	1	2	2	2	2	2	2	3	49	2.2										
Centrilobular, Degeneration																									2	2.5												
Hepatocyte, Hyperplasia																									1	2.0												
.....																																						
Mesentery																									9													
Fat, Necrosis	4																			3	3	1	1									8	2.1					
.....																																						
Oral Mucosa																									1													
.....																																						
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Atrophy																									22	1.6												
Inflammation	1																			3	3	1	1	3	4	4	1	1									2	1.0
Duct, Cyst																									1	2.0												
.....																																						
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
.....																																						
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Inflammation																									3	2.3												
Necrosis																									1	3.0												
Epithelium, Hyperplasia																									2	3.0												
.....																																						
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Inflammation																									1	2.0												
Necrosis																									1	2.0												

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 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																								* TOTALS		
	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																										
FISCHER 344 RATS MALE 1250 MG/KG ANIMAL ID	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																										
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	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	
	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		

CARDIOVASCULAR SYSTEM

Blood Vessel	+ +																								50		
Heart	+ +																								50		
Cardiomyopathy	2	2	3	2	2	2	2	2	2	1	2	2	2	1	4	2	1	2	2	2	2	2	2	2	2	50	2.0
Atrium, Thrombosis															2												2.5
Valve, Thrombosis																											1.0

ENDOCRINE SYSTEM

Adrenal Cortex	+ +																								50		
Hypertrophy	1																							1		2	1.0
Necrosis																											2.0
Zona Fasciculata, Hyperplasia			1																					1		6	1.2
Adrenal Medulla	+ +																								50		
Hyperplasia		2			1				1				2					3	1					3		11	1.8
Infiltration Cellular, Lymphocyte								2																		1	2.0
Islets, Pancreatic	+ +																								50		
Hyperplasia	1																									2	1.0
Parathyroid Gland	+ +																								49		
Hyperplasia									2										2						M	3	1.7
Pituitary Gland	+ +																								50		

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

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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	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					
<hr/>																														
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				
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				
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				
	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			
<hr/>																														
Pars Distalis, Angiectasis																								2	3	3 1.7				
Pars Distalis, Hyperplasia	3						2	3				1	1	4	2						2	1	2	2				20 2.0		
<hr/>																														
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
C-cell, Hyperplasia										2	1				1						3	1	1				50 14 1.8			
Follicular Cell, Hyperplasia																								1	1	1 1.0				
<hr/>																														
GENERAL BODY SYSTEM																														
NONE																														
<hr/>																														
GENITAL SYSTEM																														
<hr/>																														
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
																								50						
<hr/>																														
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Fibrosis																								50						
Inflammation																						3	1	1 3.0						
<hr/>																														
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Inflammation				2	1			2			2				1	1	1	2	2	2	1			2	1	1	2	2	3	50 29 1.6
Epithelium, Hyperplasia				1					1																7 1.6					
<hr/>																														
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
																								50						
<hr/>																														
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Interstitial Cell, Hyperplasia						1							4				2	2						2				50 12 2.0		

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 Species/Strain: RATS/F 344

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DAY ON TEST	0																								* TOTALS
	7	7	7	7	7	6	7	6	7	5	7	6	5	5	7	7	6	5	7	5	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	
	8	9	8	8	8	7	8	5	7	1	8	6	6	9	4	7	1	1	1	1	8	7	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	
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	
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	1	
	7	7	7	7	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	

HEMATOPOIETIC SYSTEM

Bone Marrow	+ +																								50	
Hyperplasia																									28	2.5
Myelofibrosis	2 2 3 2 4 3 4 1 3 2 3 2 3 2 1																								1	1.0
Lymph Node	+ + + + + + + +																								15	
Mediastinal, Hemorrhage	2																								1	2.0
Mediastinal, Infiltration Cellular, Histiocyte																									1	2.0
Mediastinal, Infiltration Cellular, Plasma Cell	2																								3	2.0
Pancreatic, Atrophy																									4	1.4
Pancreatic, Ectasia	2																								4	2.3
Lymph Node, Mandibular	M M																								0	
Lymph Node, Mesenteric	+ +																								50	
Atrophy	2 2 3 2																								6	2.5
Ectasia	4 4																								2	4.0
Spleen	+ +																								50	
Angiectasis																									3	1.3
Fibrosis																									2	1.2
Hematopoietic Cell Proliferation	2 1 1 2 1 1 2																								26	1.4
Hyperplasia, Histiocytic																									4	2.4
Necrosis																									2	1.5
Pigmentation, Hemosiderin	1 1 2 1 1 1 1 1 2 1																								30	1.1
Lymphoid Follicle, Hyperplasia	4																								1	4.0

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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	
ANIMAL ID		7	7	7	7	7	6	7	6	7	5	7	6	5	5	7	7	6	5	7	5	7	7	6	7
FISCHER 344 RATS MALE 1250 MG/KG		2	2	2	2	2	1	2	4	2	8	2	6	7	8	2	2	8	6	0	6	2	2	2	2

Lung	+																								50						
Fibrosis													1						1							2	1.0				
Hemorrhage																												1	2.0		
Inflammation									1		3							3	1						1				8	2.0	
Alveolar Epithelium, Hyperplasia								1			1					2	2												7	1.4	
Alveolus, Infiltration Cellular, Histiocyte						1	1						2			2	1			1					2					14	1.4

Nose	+																								50								
Foreign Body							X										X		X											7			
Olfactory Epithelium, Inflammation						1			1																							2	1.0
Respiratory Epithelium, Hyperplasia																																1	2.0
Respiratory Epithelium, Inflammation									1							2		1		2		1						1				11	1.4

Trachea	+																								50	
---------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----	--

SPECIAL SENSES SYSTEM

Eye	+																								50											
Lens, Cataract																																	1	1.0		
Harderian Gland	+																								50											
Metaplasia																																	2		1	2.0

URINARY SYSTEM

Kidney	+																								50												
Accumulation, Hyaline Droplet																																		1		2	2.0

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	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	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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	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	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	
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	
	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	
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

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	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	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	1
Acinus, Hyperplasia																									
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Necrosis																									
Duct, Metaplasia, Squamous																									
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization	1																								
Tongue																									
Epithelium, Hyperplasia																									

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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
	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 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	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	
	0	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...)

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	2	2
Atrium, Thrombosis																									

ENDOCRINE SYSTEM

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

Page 36

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	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
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TDMS No. 20005 - 05
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 Ginseng
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 First Dose M/F: 01/21/04 / 01/22/04
 Lab: BAT

DAY ON TEST	Animals																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
0	0	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	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	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 2500 MG/KG ANIMAL ID	Animals																									males (cont...)
	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	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	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
0	0	0	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	6	

HEMATOPOIETIC SYSTEM

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

INTEGUMENTARY SYSTEM

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

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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									1
Alveolar Epithelium, Hyperplasia																									1
Alveolar Epithelium, Metaplasia																									1

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 Page 39

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	
	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	

males
(cont...)

Alveolar Epithelium, Metaplasia, Squamous																									
Alveolus, Infiltration Cellular, Histiocyte													1	1			1			1			1	1	1
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Foreign Body																							X	X	
Olfactory Epithelium, Inflammation																							1		
Respiratory Epithelium, Inflammation					1																			2	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Anterior Chamber, Posterior Chamber, Fibrosis																								
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Metaplasia				2																				

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization	1	1				1	1				1		1		1	1	1		1		1	1		1
Nephropathy	1	2	3	2	1	2	3	2	2	1	2	1	2	1	2	2	2	2	1	2	3	2	2	2
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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 Page 40

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

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Ginseng
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 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	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			
	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...)		

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Ginseng

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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	0	7	7	7	7	6	7	6	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	
	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	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	
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	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	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	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	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

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	7	0	7	7	7	7	6	7	6	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

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	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

Mixed Cell Focus	X																							1			
Necrosis																								2	1 2.0		
Bile Duct, Cyst																								2	1 2.0		
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 1.5		
Centrilobular, Degeneration																								1	1 1.0		
Serosa, Fibrosis																								2	1 2.0		
Mesentery																								+	6		
Fat, Necrosis																								+	1 3	4 2.0	
Oral Mucosa																									1		
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy	1				2	1			1	3			1	1						1		1		1	1	23 1.2	
Acinus, Hyperplasia		1			1																					2 1.0	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																									3	1 3.0	
Necrosis																									2	1 2.0	
Duct, Metaplasia, Squamous																									4	1 4.0	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																									1	1 1.0	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mineralization																										1 1.0	
Tongue																										1	
Epithelium, Hyperplasia																									3	1 3.0	

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Page 43

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
FISCHER 344 RATS MALE ANIMAL ID		7	7	6	7	7	6	6	7	7	7	7	7	7	7	0	7	7	7	7	6	7	6	7	7
	2500 MG/KG	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
	* 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

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
Atrium, Thrombosis							1														1				50 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

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+ .. Tissue examined microscopically

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BLANK .. Not examined microscopically

Page 44

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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	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	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
	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	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	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	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	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			
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C-cell, Hyperplasia	1						2		1	4	2			1	1												50	
																												14 1.6

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
Inflammation																											2	1 2.0																							
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
Inflammation																												1 2.0																							
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
Inflammation																											1	2	2		1	1			2									2			1	2			
Epithelium, Hyperplasia																											3	2	1		1																				
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
Interstitial Cell, Hyperplasia																											2	3																2	2						

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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

	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	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	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
																								* TOTALS	

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	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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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	1		33 1.2	
Necrosis																				4					1 4.0	
Pigmentation, Hemosiderin	1		2			2		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	4	4		3	3	4	3	3	47 3.3

INTEGUMENTARY SYSTEM

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

DAY ON TEST	0																								* TOTALS
	7																								
FISCHER 344 RATS MALE 2500 MG/KG ANIMAL ID	0																								* TOTALS
	1																								
	+																								* TOTALS
	2																								
Mammary Gland Cyst	+																								* TOTALS
	1																								
Skin Epidermis, Cyst Epithelial Inclusion	+																								* TOTALS
	6																								
MUSCULOSKELETAL SYSTEM																									
Bone Femur, Osteopetrosis	+																								* TOTALS
	2																								
NERVOUS SYSTEM																									
Brain Necrosis	+																								* TOTALS
	2																								
Peripheral Nerve Infiltration Cellular, Mononuclear Cell	+																								* TOTALS
	2																								
RESPIRATORY SYSTEM																									
Lung Fibrosis Inflammation Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia	+																								* TOTALS
	1																								
	3																								
	1																								

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Ginseng

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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	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	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	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					
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	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	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					

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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	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...)

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

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

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 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...)

Fibrosis																											
Pars Distalis, Angiectasis																											
Pars Distalis, Hyperplasia	2			2			1					1	1	1	3						2						
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C-cell, Hyperplasia		1		1						2			1				2	4	2	1				1			

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation		4																								
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation		2	2	2		1						1	1		1			3		2					1	
Epithelium, Hyperplasia			3			2																				
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																										
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Germinal Epithelium, Degeneration															4											
Interstitial Cell, Hyperplasia		2							2			4								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
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 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 53

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
FISCHER 344 RATS MALE ANIMAL ID	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
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	0	0	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	6	6	6	6	6	6	6	6	6	7	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	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	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

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	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	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
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	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	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...)

Cyst

3

Skin
Epidermis, Cyst Epithelial Inclusion

+
 X X X X X X

MUSCULOSKELETAL SYSTEM

Bone
Femur, Osteopetrosis

+ +

Skeletal Muscle

+

NERVOUS SYSTEM

Brain

+ +

RESPIRATORY SYSTEM

Lung
Fibrosis
Hemorrhage
Inflammation
Alveolar Epithelium, Hyperplasia
Alveolar Epithelium, Metaplasia
Alveolus, Infiltration Cellular, Histiocyte

+
 1
 2
 3
 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

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 |
|-----------------------|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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...) | | | | | | | | | | | | | | | | | | | | | | | | |

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
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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

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 | |
|--------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 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 |
| DAY ON TEST | | 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 |
| DAY ON TEST | | 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 |
| 5000 MG/KG | | 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 |
| 5000 MG/KG | | 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 |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | |

males
(cont...)

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 Page 57

TDMS No. 20005 - 05
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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 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|----------|
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
5000 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

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

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TDMS No. 20005 - 05

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Species/Strain: RATS/F 344

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Ginseng

CAS Number: 50647-08-0

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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 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 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 | 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 |
| Inflammation | | | 1 | 1 | 1 | | 1 | 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 | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 1.6 |
| Acinus, Basophilic Focus | | | 4 | 1 | 1 | | | 2 | 1 | 3 | 3 | 1 | | | | 1 | | 3 | 1 | 1 | | | 1 | 1 1.0 | |
| Acinus, Hyperplasia | | | | 1 | | | | | | | | | | | | | | | | | | 2 | | | 3 1.3 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.7 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | | | | | | | * 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 | |
| | 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
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 | |
| 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 | |

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex Degeneration, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Hypertrophy | | | | | | 2 | | | | | | | | | | | | | | | | | 3 | | | 4 | 2.0 |
| Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 2 | 1.0 |
| Zona Fasciculata, Hyperplasia | | | 1 | | | | | | | | | 1 | | | | 2 | | | | | | | 4 | 1 | | 6 | 1.7 |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 11 | 1.8 |
| Islets, Pancreatic Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Parathyroid Gland Hyperplasia | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 46 | 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
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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 | 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 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | 4 | | | | | | | | | 2 4.0 | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | 3 | | 2 | | | | | | | 3 | 1 | 1 | | | 3 | | | | | 1 | 1 | 1 | 2 | | 21 1.7 |
| Epithelium, Hyperplasia | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 | 4 2.0 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Germinal Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Interstitial Cell, Hyperplasia | | 2 | | | | | | | | | | 1 | | | | | | | 2 | | | | 3 | 2 | 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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|--|
| 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 | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | |
| | 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 | | |
| 5000 MG/KG | 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 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | 3 | | 2 | | 2 | 3 | | | | | 1 | | 1 | 2 | | | 2 | | 1 | | 3 | 1 | 3 | | 3 | 28 2.0 |
| Lymph Node | + | | | | | | | | | + | | | | | | | | | | | | | | | + | 6 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 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 | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | 2 | | | | | | | | | | | | | | | | | 1 | | | | | | | 4 1.8 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 |
| Hematopoietic Cell Proliferation | 2 | | | | | | | | 1 | | | | 2 | | | 1 | | | 1 | | 2 | 1 | | 1 | 1 | 26 1.3 |
| Necrosis | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 2.0 |
| Pigmentation, Hemosiderin | | 2 | | 1 | | | | 1 | | | 1 | 1 | | 2 | 1 | | 1 | 1 | 2 | | | | 1 | 1 | | 31 1.2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | | 4 | 3 | 3 | | 3 | 3 | | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 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
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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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|-----------------|--|
| | 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 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Epidermis, Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | 7 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Femur, Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Inflammation | 1 1 1 1 2 3 | | | | | | | | | | | | | | | | | | | | | | | | 8 1.8 | | |
| Alveolar Epithelium, Hyperplasia | 4 1 1 2 | | | | | | | | | | | | | | | | | | | | | | | | 6 1.7 | | |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 1 1 1 1 1 1 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
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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TDMS No. 20005 - 05
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Ginseng
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Date Report Requested: 07/23/2008
 Time Report Requested: 11:57:36
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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 |
|------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

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 | | | |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|-----|-----|
| FISCHER 344 RATS MALE | | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 7 | 6 | 7 | 6 | 6 | 7 | 6 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | | | |
| 5000 MG/KG | | 2 | 1 | 7 | 2 | 0 | 7 | 3 | 2 | 4 | 2 | 9 | 7 | 2 | 1 | 8 | 4 | 2 | 2 | 1 | 8 | 2 | 5 | 2 | 2 | | | |
| ANIMAL ID | | 0 | 7 | 1 | 7 | 5 | 8 | 4 | 7 | 7 | 9 | 9 | 3 | 7 | 3 | 1 | 4 | 8 | 8 | 6 | 1 | 9 | 2 | 7 | 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 | 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 | | | | |
| | | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| Nephropathy | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 1 | 1 | | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 2 | 44 | 1.5 | |
| Cortex, Hemorrhage | | | | | | | | | | | | | | | | | | 3 | | | | | | | | 1 | 3.0 | |
| Papilla, Necrosis | | | | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Renal Tubule, Dilatation | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Urinary Bladder Inflammation | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 4.0 |

*** 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 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 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 |

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 | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | X X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change, Focal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change, Diffuse | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | 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
 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 | |
| | 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 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Acinus, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | + | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peridontal Tissue, 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 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 | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 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 |
| 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 |
| | 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 |
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Uterus Endometrium, Hyperplasia, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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
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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 | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 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 MG/KG | 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 | |
| 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 | 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 | 5 | | |

MUSCULOSKELETAL SYSTEM

Bone
 Femur, Osteopetrosis +

Skeletal Muscle
 Atrophy +
 3

NERVOUS SYSTEM

Brain
 Infiltration Cellular, Mononuclear Cell
 Cerebrum, Necrosis +
 4 1

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:
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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 | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 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 9 5 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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...) | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 1 2 1 1 1 2 1 2 1 2 2 1 1 1 1 3 1 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Papilla, Transitional Epithelium, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Transitional Epithelium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 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 | |
| | 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 | |

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
 Page 74

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 | 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 | 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 | |
| 0 MG/KG | 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 | |
| ANIMAL ID | 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 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 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 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 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 | | + | | | | + | | | | | | | | | | + | | + | | | | | | | | 9 1.6 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Atrophy | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 16 1.4 |
| Inflammation | 1 | | | 1 | | 1 | | | 1 | | | | 1 | 1 | | | | | 3 | | | | 1 | | | 1 2.0 |
| Acinus, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 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 | 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 | |
| 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 | 50 |
| 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 | 47 |
| 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 | 41 |
| 0 | 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| 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 | 41 |
| 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 | 1 |
| 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 |

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 | | | | | | | | | | | | | | | | | | | | | | | | * 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 | |
| | 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 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemorrhage | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pars Distalis, Angiectasis | | | | | | | 3 | 2 | | | | | | | | | | 3 | | | | | | | 7 2.3 |
| Pars Distalis, Hyperplasia | | | | | 1 | 2 | | | | | | | 2 | 4 | | 1 | 1 | | 3 | | | | 3 | | 23 2.3 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C-cell, Hyperplasia | | 1 | | | 1 | 3 | 1 | 1 | | | | | | | | | | 2 | 1 | | | 1 | | | 18 1.7 |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | 4 | | | | | | | | | | | | | | 3 | | | | | | | 6 3.3 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | 1 | | | | | | | | | | | | | 4 1.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | 2 | | | | 2 | | | | | | | | 2 | | 3 | | | | | | 2 | | 1 | 3 | 13 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
 Page 77

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 | 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 | 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 | 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 | 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 | 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 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 1 | 2 | 3 | 4 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------|
| Myelofibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Deep Cervical, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Lymph Node, Mesenteric Atrophy | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Hematopoietic Cell Proliferation | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hyperplasia, Histiocytic Pigmentation, Hemosiderin | 1 1 1 2 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 1 1 1 1 2 1 1 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 42 1.3 |
| Capsule, Fibrosis | 1 1 2 1 2 1 2 1 2 2 1 1 1 1 2 2 1 1 1 1 1 1 2 1 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 44 1.4 |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 48 |
| Atrophy | 3 3 3 3 2 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 2 3 3 3 3 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 3.0 |

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 | 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 | 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 | 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 | 0 | 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 |
| 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 | 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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 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

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|---|---|----------|
| | 0
7
2
8 | 0
7
2
8 | 0
6
7
7 | 0
6
8
8 | 0
6
3
0 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | 0
6
2
9 | 0
5
9
2 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
6
3
0 | 0
5
5
4 | 0
6
9
8 | 0
7
2
8 | 0
7
3
0 | 0
7
2
8 | 0
6
2
9 | 0
6
2
8 | 0
7
2
9 | 0
6
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 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 | 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 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | 1 | | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | 4 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | 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 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 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

Page 80

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 | * 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 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 | | |
| 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 | 39 1.0 | | |
| Nephropathy | 2 | 2 | | 1 | | 2 | | 2 | 2 | 1 | | 2 | 1 | 1 | 2 | | 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
 Page 81

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 | 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 |
| 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 | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 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 | | | | 3 | | 3 | | | | | | | | | | | | 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

Page 82

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

| 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 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
1250 MG/KG | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium, Thrombosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

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

| | 0 | 0 | 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 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | 6 | 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 | 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 | 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 |
| 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 |
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | 1 | 1 | 2 | 1 | 2 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | 1 | 3 | 1 | 1 | 1 | 2 | 2 |
| Pigmentation, Hemosiderin | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 3 | 3 | 4 | 3 | 3 | | 2 | 2 | 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
 Page 86

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 | 5 | 4 | 6 | 5 | 7 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 6 | 0 | 0 | |
| 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 | 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 | |
| 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 | |
| | 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 | |

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

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | 1 | | | | | | | | | | 2 | 2 | | | | | | 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
 Page 87

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 | 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 | | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | 3 | | | | | | | | | | | | | | | 3 | | | | | |
| Retina, Degeneration | | | 1 | 2 | | | | | | | | | | | | | | | | 2 | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | | 1 | 1 | | |
| Nephropathy | 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
 2) Mild 4) Marked
 Page 88

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 | 0 | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|--|---------------|
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | X | X | | | | | | | | | | | | 4 |
| Inflammation | | 1 | 1 | 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
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 90

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 |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-----------------|
| | 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 | 8 |
| | 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 | 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 | 8 | 8 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
1250 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 | 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 | 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 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | 2 | | 1 | | | | | | 6 1.2 | |
| Hypertrophy | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | | 2 | | | 6 1.5 | |
| Zona Fasciculata, Hyperplasia | 2 | | 2 | | | 1 | | | | | | | | 1 | | | | 2 | | | 1 | | | | | 10 1.4 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 45 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 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 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| C-cell, Hyperplasia | 1 | | | 1 | 1 | 1 | 1 | | 1 | 3 | | | 1 | | | 1 | | 1 | 2 | | | | | | | 18 1.2 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|--|
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 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
1250 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 | 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 | 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 | | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Clitoral Gland
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0 |
| Ovary
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 5 3.4 |
| Uterus
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Cervix, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| 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 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 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 | M | 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 | 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 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 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 |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | * 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 | |
| | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 7 1.3 |
| Alveolar Epithelium, Hyperplasia | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | 10 1.1 |
| Alveolar Epithelium, Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Alveolar Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Alveolus, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 13 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nasolacrimal Duct, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Respiratory Epithelium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

Date Report Requested: 07/23/2008

Ginseng

Time Report Requested: 11:57:36

CAS Number: 50647-08-0

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 | 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 |
| 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 |
| | 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...)

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 |
| 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 |
| 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
 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 | |
| | 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
2500 MG/KG

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

CARDIOVASCULAR SYSTEM

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

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 | 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 |
| 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 | | 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 | 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 | | | | | | | | | | | | | | | | |
| 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 | | | | | 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

Page 98

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 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | 0 |
| | 7 | 0 | 9 | 1 | 8 | 8 | 0 | 3 | 8 | 8 | 9 | 0 | 0 | 9 | 9 | 3 | 9 | 8 | 9 | 3 | 0 | 2 | 9 | 4 |
| FISCHER 344 RATS FEMALE
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 |
| | 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 |

females (cont...)

GENITAL SYSTEM

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

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node Deep Cervical, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node Mediastinal, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node 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 |

* .. 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 | 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 | |
| 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 | |
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Histiocytic | 1 | 1 | 1 | 1 | 1 | 1 | | 3 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | | 1 | 1 | |
| 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
 + .. 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 | |
| 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...) |

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 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
 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 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
2500 MG/KG | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 2 2 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 4 4 4 4 5 0 | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

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

* .. 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 | | | | | | | | | | | | | | | | | | | | | | | | | * 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 | | |
| | 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 | 2 | |
| | 8 | 5 | 0 | 9 | 0 | 9 | 9 | 6 | 8 | 9 | 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 | 0 | 0 | |
| | 0 | 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 | |
| | 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 | |
| 2500 MG/KG | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex
Degeneration, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hypertrophy | | | 2 | | | | | | | | | | | | | | 1 | | | | | | | | 4 1.3 |
| Zona Fasciculata, Hyperplasia | | | | 2 | 1 | | | 1 | | | | | | | | | | 2 | | | | | | | 7 1.3 |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | 1 | 1 | | | | | | | | | | | | | | | 50 |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | 50 |
| Parathyroid Gland | + | + | + | + | M | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 46 |
| Pituitary Gland
Pars Distalis, Angiectasis | + | + | + | + | 2 | + | + | 2 | 2 | | | 2 | | | | | | | 2 | | | | | 2 | 6 2.0 |
| Pars Distalis, Hyperplasia | | | | 2 | | 3 | | 1 | | 2 | | 1 | | 2 | | | 1 | | 1 | 2 | | | | 19 1.8 | |
| Pars Intermedia, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | 1 | 3 | | | 4 | | 2 | | 1 | 1 | | | 2 | | 1 | | | | | | | | 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

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

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Bone Marrow
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 18 1.7 |
| Lymph Node
Deep Cervical, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | + | | | | | | + | | | | | 4 | 1 2.0 |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | 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 | 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

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 | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 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 | 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 | | |
| 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 | 5 | 6 | 7 | 8 | 9 | 0 | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Lymph Node, Mesenteric Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | 3 | 1.3 |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia, Histiocytic Pigmentation, Hemosiderin | 1 | 1 | 2 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | | 2 | 1 | | 1 | 1 | 2 | 42 | 1.3 | |
| | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 40 | 1.2 | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 49 | 3.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

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

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

Brain + 50

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Congestion | 2 | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 2 6 1.5 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | | | | | | 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

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 |
| 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
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 | 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 | 4 | |
| | 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 |
| 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
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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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | 1 | 1 | 2 | | | | | | | | | | | | | | 1 |
| 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 | 0 | 0 | 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
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 | |
| | 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 | 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...)

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

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Degeneration, Cystic
Hypertrophy
Necrosis
Zona Fasciculata, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | 1 | | | | 1 | | | | | 3 | 2 | | | | | 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
 Page 112

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 | 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 | 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 | 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 |
| 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 | |
| | 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 | 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 | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| 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
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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 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 |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 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 | 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 |
| FISCHER 344 RATS FEMALE
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 |
| | | 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 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | 2 | | 1 | 1 | | | 2 | | 2 | 1 | 1 | 1 | | 2 | 2 | | 2 | 1 | 1 | 1 | 1 | 2 | 2 |
| Pigmentation, Hemosiderin | | 1 | | 2 | 1 | 2 | | 2 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 |
| Red Pulp, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | 3 | 2 | 3 | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 |

females
(cont...)

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Epidermis, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 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
 Page 114

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 | 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 |
| 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 | 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...)

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
 Page 115
 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 |
|--------------------------------|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 0 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 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 | |
| | | 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 | |
| | 5000 MG/KG | 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 | 4 |

females (cont...)

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

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cornea, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cornea, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lens, Cataract | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | |
| Papilla, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Infarct | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 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 | 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 | | |
| 4 | 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 | 3 | 3 | |
| 1 | 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 | |
| | 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 | 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 |

Urinary Bladder Mineralization +

* .. 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 | |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | 0 | 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 | 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 | | |
| | 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 | 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 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 |
| Periesophageal Tissue, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 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 |
| 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 |

* .. 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 5 6 6 7 7 5 5 6 7 7 7 7 5 5 6 7 6 5 6 7 7 7 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
5000 MG/KG
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 45 1.1 | |
| Mixed Cell Focus | | | | | | | | | | | | | | X | | | | | | | | | 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 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 6 2.2 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 12 1.1 | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Epithelium, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.7 | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 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

| | 0 | 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 | |
| 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 | 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 |
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Inflammation | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Cardiomyopathy | 1 1 1 2 1 2 2 1 1 1 3 1 2 2 1 1 1 1 1 1 1 1 2 2 1 | | | | | | | | | | | | | | | | | | | | | | | 46 1.5 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Atrium, Thrombosis | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 4 1.3 | | |
| Hypertrophy | 1 1 2 | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | | |
| Zona Fasciculata, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | 8 1.0 | | |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Parathyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Pars Distalis, Angiectasis | 3 2 | | | | | | | | | | | | | | | | | | | | | | | 3 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

Page 120

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 | |
| | 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 | 0 | 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 | 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 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---------------|--|
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 3.0 | | |
| Pars Distalis, Hyperplasia | 2 | | 1 | | | | | 1 | 3 | 1 | | | | | 1 | 1 | 2 | 4 | 1 | 3 | | | | | 3 | 20 1.9 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 19 1.5 | |
| C-cell, Hyperplasia | 1 | 1 | 3 | | | | | 3 | | | | | 1 | | 1 | | | | | 2 | | 2 | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

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

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 18 2.0 |
| Hyperplasia | 3 | 1 | 1 | | | | | 1 | | | | | 2 | 4 | | | | | 4 | 1 | | | | | 1 | 1 2.0 |
| Myelofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 | 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 | 0 | 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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

Bone + 50

NERVOUS SYSTEM

Brain + 50

Infiltration Cellular, Mononuclear Cell 1 1.0

RESPIRATORY SYSTEM

Larynx + 2

Foreign Body X X 2

Lung + 50

Congestion 2 1 2.0

Fibrosis 1 1.0

Hemorrhage 1 1.0

Inflammation 1 1 5 1.4

Mineralization 1 3.0

Alveolar Epithelium, Hyperplasia 1 5 1.6

Alveolar Epithelium, Metaplasia, Squamous 1 1 1.0

Alveolus, Infiltration Cellular, Histiocyte 1 1 1 9 1.0

Nose + 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 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 5 | 6 | 7 | 6 | 5 | 6 | 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 | 4 |
| | 1 | 0 | 2 | 2 | 0 | 0 | 8 | 3 | 0 | 7 | 0 | 8 | 8 | 8 | 2 | 0 | 9 | 9 | 0 | 5 | 0 | 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 |
| 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 |
| 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 | 4 |
| | 7 | 7 | 7 | 7 | 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 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--------------|
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Olfactory Epithelium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.3 |
| Respiratory Epithelium, Inflammation | 1 | | | 1 | | | 2 | | | 2 | 2 | | | 2 | 2 | | | 2 | 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 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 46 1.1 |
| Nephropathy | 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

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 | 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 | | | |
| <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 | 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 |
| 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 | 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 | 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 | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Urinary Bladder Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
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Page 125