

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

C Number: C61541C
Lock Date: 03/03/1992
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
TDMSE Version: 1.7.0

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B6C3F1 MICE MALE 0 PPM	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	4	7	7	4	7	7	6	7	4	7	4	7	7	4	5	7	7	7	7	4	7
		2	3	3	5	2	3	5	3	3	2	2	2	5	3	9	3	3	5	4	3	3	3	5	2
		9	0	0	6	9	0	6	0	1	9	9	9	6	0	7	1	0	6	6	1	0	0	0	6
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	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...)																									

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+
Gallbladder Inflammation, Chronic Active	M	M	+	+	+	+	+	M	M	+	+	+	+	+	A	+	+	+	M	+	M	+	+	+	+
Intestine Large, Cecum Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus		3												X											
Clear Cell Focus						X			X	1							X				X				
Eosinophilic Focus					3	2			X	2							3								
Fatty Change, Focal																									
Hematopoietic Cell Proliferation																									
Inflammation, Chronic Active																									

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B6C3F1 MICE MALE 0 PPM	DAY ON TEST	0729	0723	0733	0745	0772	0747	0753	0733	0733	0722	0722	0722	0756	0740	0747	0733	0733	0745	0757	0777	0777	0777	0777	0747	077
		0	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	4	7	7	4	7	7	6	7	4	7	4	7	7	4	5	7	7	7	7	7	4	7
		2	3	3	5	2	3	5	3	3	2	2	2	5	3	9	3	3	5	4	3	3	3	3	5	2
		9	0	0	6	9	0	6	0	1	9	9	9	6	0	7	1	0	6	6	1	0	0	0	6	9
	ANIMAL ID	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	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	1	1	1	1	1	1	1	2	2	2	2	2	2	2
		males (cont...)																								
Mitotic Alteration																										
Mixed Cell Focus																										
Necrosis																										
Centrilobular, Cytomegaly																										
Centrilobular, Fatty Change																										
Mesentery																										
Pancreas																										
Inflammation, Chronic																										
Acinar Cell, Atrophy																										
Salivary Glands																										
Inflammation, Chronic																										
Stomach, Forestomach																										
Stomach, Glandular																										
Inflammation, Chronic Active																										
Tooth																										
Developmental Malformation																										

CARDIOVASCULAR SYSTEM

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

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

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hypertrophy, Focal	1					2		3	2	2		1		1			2			1			1		1
Extra Adrenal Tissue, Inflammation, Chronic Active																									
Subcapsular, Hyperplasia	1	3	1	1	1	1	1	3	4	1	1		2	1		1	1			1	2	2	1		1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	3			2		3	2		2	2															
Parathyroid Gland	+	+	M	+	+	+	+	+	M	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	M
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Cyst																	2								
Pars Distalis, Hyperplasia						2			2																
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Follicular Cell, Hyperplasia, Focal					1								1				1								

GENERAL BODY SYSTEM

Tissue NOS																									
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 1 0	0 0 0 1 1	0 0 0 1 2	0 0 0 1 3	0 0 0 1 4	0 0 0 1 5	0 0 0 1 6	0 0 0 1 7	0 0 0 1 8	0 0 0 2 9	0 0 0 2 0	0 0 0 2 1	0 0 0 2 2	0 0 0 2 3	0 0 0 2 4	0 0 0 2 5
																										males (cont...)

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Granuloma Sperm								2																	
Inflammation, Chronic Active									1					2	1										
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess			4																						
Dilatation	3	3		1	2	4	2	2	2	2	2	3	1		3	3	2	2	2	3		4	1	3	4
Inflammation, Chronic				1			2								2		2							1	
Inflammation, Chronic Active	3				1			2		2	3			4		3									
Prostate	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	
Inflammation, Chronic											1									1		1		1	
Inflammation, Chronic Active																									
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation	3					2		2		3						3			2		3	2			
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Myeloid Cell, Hyperplasia																									
Lymph Node																									

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

Lymph Node, Mandibular	+	+	+	+	M	+	+	M	M	M	+	M	+	+	+	+	+	M	M	+	+	+	+	M	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+
Hematopoietic Cell Proliferation																									
Hemorrhage			2						2		2					2				2			2		
Hyperplasia, Lymphoid																								2	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation			1									3	3					1							
Inflammation, Chronic Active																									
Thymus	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+	+	+	+
Atrophy	3	3							2																
Hyperplasia, Lymphoid								2																	

INTEGUMENTARY SYSTEM

Mammary Gland	M	M	M	M	M	M	+	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body												2													
Inflammation, Chronic Active												4													
Epidermis, Hyperplasia																							1		

MUSCULOSKELETAL SYSTEM

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[illegible]

NERVOUS SYSTEM

[illegible]

RESPIRATORY SYSTEM

[illegible]

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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	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	
		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

Chronic Active Respiratory Epithelium, Metaplasia	2																									
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

SPECIAL SENSES SYSTEM

Eye																										
Harderian Gland																										
Zymbal's Gland Hypertrophy																										

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst				2																					1
Inflammation, Chronic						1	2	1																	
Inflammation, Chronic Active																									
Metaplasia, Osseous																				2					1
Nephropathy	1	1	2		1	1	1	1	1	1	2	3	1	2		1	1	1	1	2	1	2	2	2	2
Renal Tubule, Degeneration, Hyaline																									
Renal Tubule, Hyperplasia	2										1														
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Infiltration Cellular, Lymphocyte	1	1				1									1	1		1	1	1		1			

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		2	3	3	5	2	3	5	3	3	2	2	2	5	3	9	3	3	5	4	3	3	3	3	5	2
	9	0	0	6	9	0	6	0	1	9	9	9	6	0	7	1	0	6	6	1	0	0	0	6	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		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, Chronic Active																										

males
(cont...)

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

B6C3F1 MICE MALE 0 PPM	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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4	
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	3	5	5	
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0
B6C3F1 MICE MALE 0 PPM	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	
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		males (cont...)																								

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gallbladder Inflammation, Chronic Active	+	+	+	+	M	+	+	+	+	+	M	M	+	M	+	+	+	+	2	+	+	M	M	+	+	+
Intestine Large, Cecum Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Duodenum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Basophilic Focus				X																						
Clear Cell Focus				X											X											
Eosinophilic Focus																										
Fatty Change, Focal						1													1	2						
Hematopoietic Cell Proliferation										1		1								1						
Inflammation, Chronic Active										1									1							

* .. 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 10

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

B6C3F1 MICE MALE 0 PPM		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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4		
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	2	3	5	5	
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0	
		ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	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		
		males (cont...)																									
Mitotic Alteration		1																									
Mixed Cell Focus																											
Necrosis		1																									
Centrilobular, Cytomegaly																											
Centrilobular, Fatty Change		1																									
Mesentery		+																									
Pancreas		+																									
Inflammation, Chronic		1																									
Acinar Cell, Atrophy		4																									
Salivary Glands		+																									
Inflammation, Chronic		2																									
Stomach, Forestomach		+																									
Stomach, Glandular		+																									
Inflammation, Chronic Active		1																									
Tooth		+																									
Developmental Malformation		X																									

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

+ .. Tissue examined microscopically

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l .. Insufficient tissue

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Page 11

TDMS No. 05068 - 10
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Species/Strain: MICE/B6C3F1

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Lab: MBA

B6C3F1 MICE MALE 0 PPM	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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4	
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	3	5	5	
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0
B6C3F1 MICE MALE 0 PPM	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	
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		males (cont...)																								

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+
Hypertrophy, Focal				2		1		1	2													1	1		
Extra Adrenal Tissue, Inflammation, Chronic Active													3												
Subcapsular, Hyperplasia	2					2	1		1			1	2			2	2		1		1	1	1	1	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia				1								2	2										1		
Parathyroid Gland	+	+	+	+	M	+	+	+	+	M	+	+	M	M	+	+	+	+	+	+	+	M	M	+	M
Pituitary Gland	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+
Pars Distalis, Cyst																									
Pars Distalis, Hyperplasia											2												1		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M
Follicular Cell, Hyperplasia, Focal					1															1					

GENERAL BODY SYSTEM

Tissue NOS	+
------------	---

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

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Page 12

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TDMS No. 05068 - 10
Test Type: CHRONIC
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B6C3F1 MICE MALE 0 PPM	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	males (cont...)	
		4	7	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	7	4		4
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	2	3	5		5
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6		0
B6C3F1 MICE MALE 0 PPM	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	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
		0	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

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Granuloma Sperm																										
Inflammation, Chronic Active																										
Preputial Gland	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+
Abscess																										
Dilatation																										
Inflammation, Chronic																										
Inflammation, Chronic Active																										
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+
Inflammation, Chronic																										
Inflammation, Chronic Active																										
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation																										
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Myeloid Cell, Hyperplasia																										
Lymph Node																										

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+ .. Tissue examined microscopically

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TDMS No. 05068 - 10
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B6C3F1 MICE MALE 0 PPM	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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4	
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	3	5	5	
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	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	
		males (cont...)																								

Lymph Node, Mandibular	+	M	+	+	M	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation					2				2																
Hemorrhage					2				4	3					3										
Hyperplasia, Lymphoid																									
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation					4				2	1	1	3	3		2				2		3				
Inflammation, Chronic Active																									
Thymus	+	+	+	+	M	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+
Atrophy												2			4										
Hyperplasia, Lymphoid																									

INTEGUMENTARY SYSTEM

Mammary Gland	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
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																									
Inflammation, Chronic Active																									
Epidermis, Hyperplasia																									

MUSCULOSKELETAL SYSTEM

TDMS No. 05068 - 10
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B6C3F1 MICE MALE 0 PPM	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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4	
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	2	3	5	5
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0
B6C3F1 MICE MALE 0 PPM	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	
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		males (cont...)																								

males
(cont...)

Bone +

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression																									
Mineralization	2	2		2					2	3		2	3		2	2	2		3		2				

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Congestion																									
Infiltration Cellular, Histiocyte																									
Infiltration Cellular, Lymphocyte				1		1			1															1	
Inflammation, Chronic Active												2													
Alveolar Epithelium, Hyperplasia																	3						3		
Bronchiole, Hyperplasia																									
Interstitium, Inflammation, Chronic Active																							2		
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Exudate																									
Olfactory Epithelium, Degeneration, Hyaline				1	1			2		1				2						2	1				
Respiratory Epithelium, Degeneration, Hyaline																									
Respiratory Epithelium, Hyperplasia, Glandular														2											
Respiratory Epithelium, Inflammation,																									

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B6C3F1 MICE MALE 0 PPM	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	6	7	6	7	7	7	7	2	7	7	4	6	5	7	7	7	7	7	7	7	4	4	
		5	3	0	2	8	3	3	3	2	2	2	3	5	9	7	3	2	3	2	3	2	3	5	5	
		6	0	9	9	9	0	0	1	9	7	9	0	6	3	9	0	9	1	9	0	9	9	1	6	0
B6C3F1 MICE MALE 0 PPM	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	
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		males (cont...)																								

Chronic Active
Respiratory Epithelium, Metaplasia

Trachea + M

SPECIAL SENSES SYSTEM

Eye

+

Harderian Gland

+

+

Zymbal's Gland
Hypertrophy

URINARY SYSTEM

Kidney
Cyst
Inflammation, Chronic
Inflammation, Chronic Active
Metaplasia, Osseous
Nephropathy
Renal Tubule, Degeneration, Hyaline
Renal Tubule, Hyperplasia

+
1
2 1 2 2 1 2 2 1 1 1 1 1 1 1 2 1 1 2 1

Urinary Bladder
Infiltration Cellular, Lymphocyte

+
1 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked
Page 16

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|------------------------------|-------------|--------------------|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | males
(cont...) | |
| | | 4 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 2 | 7 | 7 | 4 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | | 4 |
| | | 5 | 3 | 0 | 2 | 8 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 5 | 9 | 7 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 5 | | 5 |
| | | 6 | 0 | 9 | 9 | 9 | 0 | 0 | 1 | 9 | 7 | 9 | 0 | 6 | 3 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 9 | 1 | 6 | | 0 |
| | | | |
| | ANIMAL ID | 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 |
| Inflammation, Chronic Active | | 4 | | |

TDMS No. 05068 - 10
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| | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 | 0 |
| | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Esophagus | + | + | + | M | + | + | + | + | + | + | 57 | |
| Gallbladder | + | M | M | M | + | + | + | + | + | + | 44 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 3.5 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 59 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 59 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 59 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | |
| Basophilic Focus | | | | | | | | | | 2 | | 4 2.5 |
| Clear Cell Focus | | | | | | | | | | | | 7 1.0 |
| Eosinophilic Focus | | | | | | | 2 | X | | | | 9 2.1 |
| Fatty Change, Focal | | | | | | | | 1 | | | | 4 1.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 2 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 1.0 |

* .. 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 18

TDMS No. 05068 - 10
Test Type: CHRONIC
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| | | | | | | | | | | | | | | |
|------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|-----|-----|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0
7
3
0 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
4
5
6 | 0
7
3
1 | 0
4
5
6 | 0
7
3
0 | | | |
| | | | | | | | | | | | | | | |
| | ANIMAL ID | 0
0
0
5
1 | 0
0
0
5
2 | 0
0
0
5
3 | 0
0
0
5
4 | 0
0
0
5
5 | 0
0
0
5
6 | 0
0
0
5
7 | 0
0
0
5
8 | 0
0
0
5
9 | 0
0
0
6
0 | | | |
| | | | | | | | | | | | | | | |
| | | * TOTALS | | | | | | | | | | | | |
| Mitotic Alteration | | | | | | | | | | | | 1 | 1.0 | |
| Mixed Cell Focus | | | | | | | | | | | | 1 | | |
| Necrosis | | | | | | | | | | | | 2 | 1.5 | |
| Centrilobular, Cytomegaly | | | | | | | | | | | | 3 | 1.0 | |
| Centrilobular, Fatty Change | | | | | | | | | | | | 13 | 1.5 | |
| | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | 1 | | |
| | | | | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Inflammation, Chronic | | | | | | | | | | | | 2 | 1.0 | |
| Acinar Cell, Atrophy | | | | | | | | | | | | 2 | 3.0 | |
| | | | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | | + | + | + | + | + | + | 60 | | |
| Inflammation, Chronic | | | | | | 1 | 1 | 1 | 1 | 1 | | 1 | 27 | 1.1 |
| | | | | | | | | | | | | | | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | 60 | | |
| | | | | | | | | | | | | | | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | 1.0 | |
| | | | | | | | | | | | | | | |
| Tooth | | | | | | | | | | | | 9 | | |
| Developmental Malformation | | | | | | | | | | | | | 9 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|--|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | | 59 |
| Heart | + | + | + | + | + | + | + | + | + | + | | 60 |

* .. 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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1) Minimal 3) Moderate

2) Mild 4) Marked

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Lab: MBA

| | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|----------|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 | 0 |
| | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | * TOTALS | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | 59 | |
| Hypertrophy, Focal | 2 | | | 1 | 2 | 1 | | 2 | 2 | | 23 1.5 |
| Extra Adrenal Tissue, Inflammation, Chronic Active | | | | | | | | | | | 1 3.0 |
| Subcapsular, Hyperplasia | | 1 | | 1 | | 1 | 2 | 1 | | | 38 1.4 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | 59 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | | | | | | | | | 10 2.0 |
| Parathyroid Gland | + | + | + | M | M | M | + | + | + | 45 | |
| Pituitary Gland | + | + | + | + | + | M | + | + | + | 56 | |
| Pars Distalis, Cyst | | | | | | | | | | | 1 2.0 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | 4 1.8 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | 59 | |
| Follicular Cell, Hyperplasia, Focal | | | 2 | | | | | 1 | | | 7 1.1 |

GENERAL BODY SYSTEM

| | |
|------------|---|
| Tissue NOS | 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 20

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
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 Lab: MBA

| | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|-----------------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 PPM | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | * TOTALS |

GENITAL SYSTEM

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 60 | |
| Granuloma Sperm | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | 1 | | 5 1.4 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | 58 | |
| Abscess | | | | | | | | | | | | 1 4.0 |
| Dilatation | | | 2 | | 1 | 1 | 3 | 3 | 4 | 3 | 4 | 49 2.6 |
| Inflammation, Chronic | | | | | | | | 1 | | 2 | | 8 1.6 |
| Inflammation, Chronic Active | | | | | 1 | 2 | | | 1 | | | 23 2.0 |
| Prostate | + | + | + | + | + | + | + | + | + | + | 56 | |
| Inflammation, Chronic | | | | | | 1 | | | | 1 | | 12 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 3.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | 60 | |
| Dilatation | | | | | 2 | | | | | | | 10 2.4 |
| Testes | + | + | + | + | + | + | + | + | + | + | 60 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 60 | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Lymph Node | | | | | | | | | | | 6 | |

* .. 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 21

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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| | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 | 0 |
| | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 59 |
| Hematopoietic Cell Proliferation | | | 2 | | | | | | | | 5 2.0 |
| Hemorrhage | | | 2 | 2 | | | | | 2 | | 13 2.3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 60 |
| Hematopoietic Cell Proliferation | | | 3 | | | | | | | | 14 2.3 |
| Inflammation, Chronic Active | | | | 2 | | | | | | | 1 2.0 |
| Thymus | + | + | M | + | + | M | + | + | + | + | 53 |
| Atrophy | | | | | | | | | | | 5 2.8 |
| Hyperplasia, Lymphoid | | | | | | | | | | | 1 2.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | M | M | + | M | M | M | M | + | M | 4 |
| Skin | + | + | + | + | + | + | + | + | + | 60 |
| Foreign Body | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | 2 3.0 |
| Epidermis, Hyperplasia | | | | | | | | | | 1 1.0 |

MUSCULOSKELETAL 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

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2) Mild 4) Marked

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 Lab: MBA

| | | | | | | | | | | | |
|---------------------------|-------------|------|------|------|------|------|------|------|------|------|--|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | |
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| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Brain | + | + | + | + | + | + | + | + | + | + | 60 | |
| Compression | | | | | | | | | | | | 1 4.0 |
| Mineralization | 1 | 1 | | 1 | 2 | 2 | 2 | 2 | 2 | | | 40 1.8 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|----|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | 60 | |
| Congestion | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | 2 2.0 |
| Infiltration Cellular, Lymphocyte | | 1 | | | | | | 1 | | | | 13 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | 1 | | 6 2.0 |
| Bronchiole, Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Interstitium, Inflammation, Chronic Active | | | | | | | | | | | | 2 1.5 |
| Nose | + | + | + | + | + | + | + | + | + | + | 60 | |
| Exudate | | | | | | | | | | | | 1 1.0 |
| Olfactory Epithelium, Degeneration, Hyaline | | | 2 | 2 | | | | | | | | 25 1.7 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | | | | 1 2.0 |
| Respiratory Epithelium, Hyperplasia, Glandular | | | | | | | | | | | | 2 2.0 |
| Respiratory Epithelium, Inflammation, | | | | | | | | | | | | 2 1.5 |

* .. 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

Page 23

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 | 0 |
| | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|-------|
| Chronic Active
Respiratory Epithelium, Metaplasia | | | | | | | | | | | 1 2.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 59 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | |
|-------------------------------|---|--|--|--|--|--|--|--|--|--|-------|
| Eye | | | | | | | | | | | 1 |
| Harderian Gland | + | | | | | | | | | | 3 |
| Zymbal's Gland
Hypertrophy | + | | | | | | | | | | 1 |
| | 4 | | | | | | | | | | 1 4.0 |

URINARY SYSTEM

| | | | | | | | | | | | | |
|-------------------------------------|-----|---|---|---|---|---|---|---|---|---|----|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 60 | |
| Cyst | 1 | | | | | | | | | | | 4 1.3 |
| Inflammation, Chronic | 1 1 | | | | | | | | | | | 11 1.1 |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | 2 2.5 |
| Metaplasia, Osseous | | | | | | | | | | | | 2 1.5 |
| Nephropathy | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | | 2 | | 52 1.4 |
| Renal Tubule, Degeneration, Hyaline | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Hyperplasia | | | | | | | | | | | | 2 1.5 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 60 | |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | | | | | 16 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 24

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 |
| | | 0 | 9 | 1 | 0 | 9 | 9 | 6 | 1 | 6 | 0 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | |
| 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

Page 25

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|-----------------------------|-------------|--------------------|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | males
(cont...) | | |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | | 7 | |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | | 7 | 3 |
| | | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 1 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 1 | 9 | | 4 | 1 |
| | | | | |
| | ANIMAL ID | 0 | | 0 | 0 |
| | | 0 | | 0 | 0 |
| | | 0 | | 0 | 0 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | | 8 | 8 |
| | | 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 | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Gallbladder | + | M | + | + | + | M | + | M | + | 2 | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Degeneration, Hyaline Dilatation | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + | M | + | + | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Hyperplasia, Plasma Cell | 2 | + | + | + |
| Intestine Small, Jejunum | + |
| Liver | + |
| Basophilic Focus | | X | | | | | | | | | | | | X | | | | | | | | | | | X |
| Clear Cell Focus | | | | | | | | | X | | | | | | | | | | | | X | | | | |
| Cyst | | | | | | | | | | | | | | | | | 4 | | | | | | | | |
| Eosinophilic Focus | | | | | 2 | | | | X | | | | | | | 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 26

2) Mild 4) Marked

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 7 | 3 | |
| | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 1 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 1 | 9 | 4 | 1 |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 0 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
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| |
|----------------------------|
| Tooth |
| Developmental Malformation | |

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

| |
|----------------------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | I | + | + | + | + | + | + | + | + |
| Hypertrophy, Focal | | 2 | | | | | 2 | 2 | 4 | | 1 | | | | | | | | 2 | 2 | 2 | 1 | 1 | | 2 |
| Subcapsular, Hyperplasia | | | | 2 | 1 | 1 | | | | 1 | 1 | 1 | | | 2 | | | | 1 | 1 | 1 | 1 | 1 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | I | + | + | + | M | + | + | + | + |
| Islets, Pancreatic | + |
| Hyperplasia | | | | | | 2 | | | | | | 2 | | | | | | 1 | 2 | | | | 2 | 1 | |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | M | M | + | + | M | + | + | M | M | M | + | + | M | + | + | + |
| Pituitary Gland | + | M | + | + | + |
| Pars Distalis, Cyst | | | | | | | 2 | | | | 2 | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 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

Page 28

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2) Mild 4) Marked

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-------------------------------------|------------------------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0
3
9
6 | 0
7
2
9 | 0
4
5
6 | 0
4
5
6 | 0
7
3
0 | 0
6
9
7 | 0
7
2
9 | 0
7
3
1 | 0
7
3
1 | 0
6
0
3 | 0
7
4
1 | 0
7
7
6 | 0
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7
1 | 0
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5 | 0
7
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3 | 0
7
3
3 | 0
7
2
0 | 0
7
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6 | 0
7
3
1 | 0
7
2
5 | 0
7
3
1 | 0
7
2
9 | 0
7
3
1 | 0
7
2
9 | 0
4
7
4 | 0
7
3
1 |
| | ANIMAL ID | 0
0
0
6
1 | 0
0
0
6
2 | 0
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0
6
3 | 0
0
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6
4 | 0
0
0
6
5 | 0
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6 | 0
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7 | 0
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9 | 0
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9 | 0
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8
0 | 0
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8
1 | 0
0
0
8
2 | 0
0
0
8
3 | 0
0
0
8
4 | 0
0
0
8
5 |
| | Thyroid Gland | + |
| | Inflammation, Chronic Active | |
| | Follicle, Cyst | |
| Follicular Cell, Hyperplasia, Focal | | | | | | 1 | | 1 | | 1 | 1 | | | 1 | | 1 | | 2 | 2 | 1 | 1 | 2 | 1 | 1 | | | |
| GENERAL BODY SYSTEM | | NONE | |
| GENITAL SYSTEM | |
| Epididymis | | + |
| Inflammation, Chronic Active | | 1 | | | | | | | | 1 | | | | | | | | | | | | | 1 | | | | |
| Preputial Gland | | + |
| Abscess | |
| Dilatation | | | 2 | 3 | 2 | 3 | 2 | 4 | 2 | 2 | | 1 | 3 | 3 | 3 | | 4 | | | | | | | | | 2 | |
| Inflammation, Chronic | | | 2 | | 2 | | | | | | | | | | | | | | 1 | | | | | | | | |
| Inflammation, Chronic Active | | | | | | 2 | | | | 1 | 2 | | | | | 3 | 4 | | 2 | | 2 | 2 | 2 | | | | 2 |
| Prostate | | + |
| Inflammation, Chronic | | | 1 | | | | | | 1 | | | | 1 | | | 1 | 1 | | 1 | | | | 1 | | | | 1 |
| Seminal Vesicle | | + |
| Dilatation | | | | | | | 3 | | | | | | | | | | 1 | | 3 | | | | | | | | 2 |
| Testes | | + |

* .. 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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| | | | |
|-----------------------------|-------------|--------------------|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | males
(cont...) | |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | | |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 7 | 3 | | |
| | | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 3 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 4 | 1 | | |
| | ANIMAL ID | 0 | | |
| | | 0 | | |
| | | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

HEMATOPOIETIC SYSTEM

| |
|-------------------------------------|
| Bone Marrow
Congestion | + |
| Lymph Node | | | | | | | | | | | | | | | | | | | + | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | M | + | + |
| Lymph Node, Mesenteric
Granuloma | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Hemorrhage | | | 2 | | | | | | | | | | | | | | 2 | | 2 | | | 1 | | | |
| Hyperplasia, Histiocytic | | | | | | | 2 | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Spleen | + |
| Hematopoietic Cell Proliferation | | | 3 | | | | | | | | 2 | | | | | | 2 | 4 | | 1 | | | 1 | 3 | |
| Hyperplasia, Reticulum Cell | | | | 2 | |
| Thymus | + | M | + | + | + | + | + | + | + | M | + | + | M | + | M | + | M | M | + | + | + | + | + | + | + |
| Atrophy | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Necrosis | 1 | |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 30

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 7 |
| | | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 1 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 1 | 9 | 4 |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 0 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 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...)

Mammary Gland

M M

Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia
Subcutaneous Tissue, Abscess
Subcutaneous Tissue, Edema

+
1 1 1

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle
Inflammation, Chronic

NERVOUS SYSTEM

Brain
Mineralization

+
2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

RESPIRATORY SYSTEM

Lung
Infiltration Cellular, Lymphocyte
Inflammation, Chronic Active

+
1 2 1 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 31

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|-----------------------------|-------------|--------------------|---|
| | DAY ON TEST | 0 | | | |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | | 7 | |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | | 7 | 3 |
| | | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 3 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 1 | 9 | | 4 | 1 |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 0 | males
(cont...) | |
| | | 0 | | |
| | | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | | 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 |

Alveolar Epithelium, Hyperplasia
Interstitial, Inflammation, Chronic Active

2 2 4

| | |
|---|---|
| Nose | + |
| Olfactory Epithelium, Degeneration, Hyaline | 3 | | 1 | | 2 | | | 1 | | 2 | 1 | | 1 | | 2 | 1 | | | 1 | 2 | | | 2 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline |
| Respiratory Epithelium, Proliferation Connective Tissue | |
| | |

| |
|---------|
| Trachea | + |
|---------|

SPECIAL SENSES SYSTEM

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

URINARY SYSTEM

| |
|----------------------------|
| Kidney | + |
| Cyst |
| Inflammation, Chronic | | | 1 | | | 1 | | | | 1 | | 2 | | | 1 | 1 | | | | 1 | | | | |
| Metaplasia, Osseous | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | |
| Nephropathy | | | | | 1 | 1 | 1 | | 2 | 1 | | | | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| Pigmentation |
| Capsule, Fibrosis |
| Renal Tubule, Necrosis |
| Renal Tubule, Pigmentation | |
| |

* .. 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 32

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | |
| | | 3 | 7 | 4 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | |
| | | 9 | 2 | 5 | 5 | 3 | 9 | 2 | 3 | 3 | 0 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 7 | 3 |
| | | 6 | 9 | 6 | 6 | 0 | 7 | 9 | 1 | 1 | 3 | 1 | 6 | 1 | 0 | 0 | 9 | 6 | 1 | 5 | 1 | 9 | 1 | 9 | 4 | 1 |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 0 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 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 |
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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-----------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | | |
| | | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 0 | 4 | 7 | |
| | | 2 | 5 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 5 | 2 | 3 | 3 | 2 | 6 | 5 | 2 | 3 | 3 | 3 | 0 | 5 | 3 | |
| | | 9 | 6 | 9 | 0 | 4 | 1 | 1 | 9 | 9 | 0 | 6 | 9 | 0 | 0 | 9 | 6 | 6 | 9 | 1 | 3 | 1 | 1 | 8 | 6 | 1 |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 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 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| | | males (cont...) | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| Tooth | + | + | + | | | | | | | | | | | | | | | | | | | | | | |
| Developmental Malformation | X | | X | | | X | | | | | | | | | | | | | | | | | | X | |

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

| |
|----------------------------|
| Adrenal Cortex | + |
| Hypertrophy, Focal | | | | 2 | | 1 | 1 | 2 | | 1 | | | | 1 | 1 | | | 1 | 1 | | 1 | | | |
| Subcapsular, Hyperplasia | 2 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | 1 | 2 | 1 | | 1 | | 1 | | 1 | | | | 1 |
| |
| Adrenal Medulla | + |
| |
| Islets, Pancreatic | + |
| Hyperplasia | | 2 | | | | 1 | | 2 | | 3 | | | | | | | 2 | | | | | | | |
| |
| Parathyroid Gland | + | + | + | + | + | + | + | M | + | + | + | M | M | + | + | + | + | + | M | + | + | + | + | + |
| |
| Pituitary Gland | + |
| Pars Distalis, Cyst |
| Pars Distalis, Hyperplasia | |
| |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|------------------------------|---|-----------------------|--------------------|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0
7
2
9 | 0
4
5
6 | 0
5
5
9 | 0
7
3
0 | 0
7
2
4 | 0
7
3
1 | 0
7
3
1 | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
4
5
6 | 0
7
2
9 | 0
7
3
0 | 0
5
6
6 | 0
4
5
6 | 0
7
2
9 | 0
6
3
3 | 0
7
3
1 | 0
6
3
3 | 0
7
3
1 | 0
0
3
8 | 0
4
5
6 | 0
7
3
1 | males
(cont...) | |
| | ANIMAL ID | 0
0
0
8
6 | 0
0
0
8
7 | 0
0
0
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8 | 0
0
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9
9 | 0
0
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4 | 0
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6 | 0
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7 | 0
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8 | 0
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0
0
9 | | |
| | | | | |
| | Thyroid Gland | + | | + |
| | Inflammation, Chronic Active
Follicle, Cyst
Follicular Cell, Hyperplasia, Focal | | | | | | | | | | 2
1 | | 1 | | 4 | | | | 1 | 1 | 1 | | | | | 1 |
| GENERAL BODY SYSTEM | | | | |
| NONE | | | | |
| GENITAL SYSTEM | | | | |
| Epididymis | | + | + | |
| Inflammation, Chronic Active | | | | |
| Preputial Gland | | + | + | |
| Abscess | | | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Dilatation | | | 3 | 4 | | 3 | 4 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | | 2 | | 2 | 3 | 1 | 1 | | 1 | 1 | |
| Inflammation, Chronic | | | 1 | | |
| Inflammation, Chronic Active | | | | | | | | 1 | | 2 | 1 | | 2 | | 1 | 1 | | | | | 2 | 1 | | | | |
| Prostate | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | |
| Inflammation, Chronic | | | 1 | | 1 | | | 1 | 1 | | | | | 1 | 1 | | | | | | | | | | | |
| Seminal Vesicle | | + | + | |
| Dilatation | | | | | 2 | | | | | 2 | | | | | | | | | | | | 2 | | | | |
| Testes | | + | + | |

* .. 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 37

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
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Lab: MBA

| | | | | |
|-----------------------------|-------------|--------------------|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | males
(cont...) | | |
| | | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 0 | 4 | | 7 | |
| | | 2 | 5 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 5 | 2 | 3 | 3 | 2 | 6 | 5 | 2 | 3 | 3 | 3 | 0 | 5 | | 3 | |
| | | 9 | 6 | 9 | 0 | 4 | 1 | 1 | 9 | 9 | 0 | 6 | 9 | 0 | 0 | 9 | 6 | 6 | 9 | 1 | 3 | 3 | 1 | 1 | | 8 | 6 |
| | ANIMAL ID | 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 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | |

males
(cont...)

HEMATOPOIETIC SYSTEM

| |
|----------------------------------|
| Bone Marrow | + |
| Congestion |
| Lymph Node |
| Lymph Node, Mandibular | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric | + |
| Granuloma |
| Hematopoietic Cell Proliferation | 1 | | | 1 | |
| Hemorrhage | 2 | | | | | 2 | | | | | | | | 1 | | | | | | | | | | | |
| Hyperplasia, Histiocytic |
| Hyperplasia, Lymphoid |
| Spleen | + |
| Hematopoietic Cell Proliferation | | | 4 | | | | | 1 | | | | | | 1 | | 2 | | | | 4 | | | | | |
| Hyperplasia, Reticulum Cell |
| Thymus | + | + | M | + | M | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M | M | M | M | + | + |
| Atrophy | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Cyst |
| Hyperplasia, Lymphoid | | | 2 | |
| Necrosis |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 38

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|-----------------------------|-------------|--------------------|--------------------|--------------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | males
(cont...) | | |
| | | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 0 | 4 | | 7 | |
| | | 2 | 5 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 5 | 2 | 3 | 3 | 2 | 6 | 5 | 2 | 3 | 3 | 3 | 0 | 5 | | 3 | |
| | | 9 | 6 | 9 | 0 | 4 | 1 | 1 | 9 | 9 | 0 | 6 | 9 | 0 | 0 | 9 | 6 | 6 | 9 | 1 | 3 | 3 | 1 | 1 | | 8 | 6 |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 0 | males
(cont...) | |
| | | 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 |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 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 | males
(cont...) |

Mammary Gland

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

Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia
Subcutaneous Tissue, Abscess
Subcutaneous Tissue, Edema

+
2
1
3
3

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle
Inflammation, Chronic

+
1

NERVOUS SYSTEM

Brain
Mineralization

+
1 2 2 1 1 1 1 1 1 1 1

RESPIRATORY SYSTEM

Lung
Infiltration Cellular, Lymphocyte
Inflammation, Chronic Active

+
1 1 1 1 1 1 2 1 1 1 1

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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1) Minimal 3) Moderate

2) Mild 4) Marked

Page 39

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Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--|-------------|--------------------|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0
7
2
9 | 0
4
5
6 | 0
5
5
9 | 0
7
3
0 | 0
7
2
4 | 0
7
3
1 | 0
7
3
1 | 0
7
2
1 | 0
7
3
9 | 0
7
2
9 | 0
7
3
0 | 0
7
3
6 | 0
7
3
9 | 0
7
2
0 | 0
5
6
6 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | 0
6
3
3 | 0
7
3
1 | 0
7
3
1 | 0
0
0
8 | 0
4
5
6 | 0
7
3
1 | males
(cont...) | |
| | ANIMAL ID | 0
0
0
8
6 | 0
0
0
8
7 | 0
0
0
8
8 | 0
0
0
8
9 | 0
0
0
9
0 | 0
0
0
9
1 | 0
0
0
9
2 | 0
0
0
9
3 | 0
0
0
9
4 | 0
0
0
9
5 | 0
0
0
9
6 | 0
0
0
9
7 | 0
0
0
9
8 | 0
0
0
9
9 | 0
0
0
0
0 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
0
1
1 | 0
0
0
1
1 | 0
0
0
1
1 | 0
0
0
1
1 | 0
0
0
1
1 | 0
0
0
1
9 | 0
0
1
0
0 | | |
| | | | |
| | | | |
| | | | |
| Alveolar Epithelium, Hyperplasia
Interstitial, Inflammation, Chronic Active | | 2 | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| Nose | | + | |
| Olfactory Epithelium, Degeneration,
Hyaline | | | 1 | 1 | 1 | | 2 | 2 | | 1 | | 1 | 1 | | | 2 | 2 | 1 | | 1 | | 2 | 2 | | | | |
| Respiratory Epithelium, Degeneration,
Hyaline | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Proliferation
Connective Tissue | | | |
| Trachea | | + | |
| SPECIAL SENSES SYSTEM | | | |
| Harderian Gland | | | | | | | | | | | | | | + | | | | | | | | | | | | | + |
| URINARY SYSTEM | | | |
| Kidney | | + | |
| Cyst | | | |
| Inflammation, Chronic
Metaplasia, Osseous | | | 1 | | | | 1 | | | | | | 1 | | | 2 | | 1 | | | | 1 | | | 1 | | |
| Nephropathy | | 1 | 2 | | 1 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | | | 1 | 1 | 2 | 1 | 1 | | 1 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | |
| Capsule, Fibrosis | | | | | 2 | | |
| Renal Tubule, Necrosis | | | | | 2 | | |
| Renal Tubule, Pigmentation | | | |

* .. 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 40

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-----------------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 |
| | | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 0 | 4 | 7 | |
| | | 2 | 5 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 5 | 2 | 3 | 3 | 2 | 6 | 5 | 2 | 3 | 3 | 3 | 3 | 0 | 5 | 3 |
| | | 9 | 6 | 9 | 0 | 4 | 1 | 1 | 9 | 9 | 0 | 6 | 9 | 0 | 0 | 9 | 6 | 6 | 9 | 1 | 3 | 1 | 1 | 8 | 6 | 1 |
| | ANIMAL ID | 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 |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| | | males (cont...) | |
| Urinary Bladder | | + | + |
| Dilatation | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | 1 | 1 | |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 |
| | | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | |
| | ANIMAL ID | 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 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 58 | |
| Gallbladder | M | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Hyaline | | | | | | | | | | | | 1 2.0 |
| Dilatation | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | 1 1.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Large, Colon | + | + | + | + | M | + | + | + | + | + | 58 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | 1 2.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | |
| Basophilic Focus | | | | | | | | | | | | 4 |
| Clear Cell Focus | | | | | | | | | | | | 4 |
| Cyst | | | | | | | | | | | | 1 4.0 |
| Eosinophilic Focus | 2 | | | | | | | | X | | | 12 1.9 |

* .. 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 42

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--------------------------------------|-----------|---------------------|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 | 3 | |
| | | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 | 1 | |
| <hr/> | | | | | | | | | | | | |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | * TOTALS |
| Fatty Change, Focal | | 1 | | | | | | | | | | 4 1.0 |
| Infarct | | | | | | | | | | | | 3 2.7 |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 1.0 |
| Mitotic Alteration | | | | | | | | | | | | 1 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | 3 2.7 |
| Pigmentation | | 2 | | | | | | | | | | 1 2.0 |
| Centrilobular, Fatty Change | | 2 1 1 2 | | | | | | | | | | 18 1.3 |
| <hr/> | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | 3 |
| Fat, Necrosis | | | | | | | | | | | | 3 2.7 |
| <hr/> | | | | | | | | | | | | |
| Pancreas | | + + + + + + + + + + | | | | | | | | | | 60 |
| Acinar Cell, Atrophy | | | | | | | | | | | | 2 2.5 |
| Artery, Inflammation, Chronic Active | | 3 | | | | | | | | | | 1 3.0 |
| Duct, Cyst | | | | | | | | | | | | 1 4.0 |
| <hr/> | | | | | | | | | | | | |
| Salivary Glands | | + + + + + + + + + + | | | | | | | | | | 60 |
| Inflammation, Chronic | | 2 1 1 | | | | | | | | | | 27 1.2 |
| <hr/> | | | | | | | | | | | | |
| Stomach, Forestomach | | + + + + + + + + + + | | | | | | | | | | 60 |
| Hyperplasia | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 1.0 |
| <hr/> | | | | | | | | | | | | |
| Stomach, Glandular | | + + + + + + + + + + | | | | | | | | | | 60 |
| Dilatation | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | 1 | | | | | | | | | | 3 1.0 |
| Necrosis | | | | | | | | | | | | 1 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

Page 43

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 |
| | | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 |
| | <hr/> | | | | | | | | | |
| | ANIMAL ID | 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 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |
| Tooth | | + | | | | + | | | | 9 |
| Developmental Malformation | | X | | | | X | | | | 9 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 60 |
| Heart | + | + | + | + | + | + | + | + | + | + | 60 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 58 | | |
| Hypertrophy, Focal | 1 | | | 1 | | | 1 | | 1 | 1 | | 26 | 1.5 |
| Subcapsular, Hyperplasia | | | | | 1 | | 1 | 2 | 1 | | | 30 | 1.2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 57 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Hyperplasia | | | | | | | 2 | 2 | | | | 13 | 1.8 |
| Parathyroid Gland | + | M | + | + | + | + | M | + | + | M | 45 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Pars Distalis, Cyst | | | | | | | | | | | | 2 | 2.0 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | 2 | 1.5 |

* .. 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

Page 44

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------|
| | DAY ON TEST | 0
7
3
1 | 0
6
2
2 | 0
4
5
6 | 0
7
3
1 | 0
4
5
6 | 0
7
3
0 | 0
7
2
9 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | |
| B6C3F1 MICE MALE
750 PPM | ANIMAL ID | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | |
| | | * TOTALS | | | | | | | | | | |
| | Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 60 |
| | Inflammation, Chronic Active | | | | | | | | | | | 1 1.0 |
| | Follicle, Cyst | | | | | | | | | | | 1 2.0 |
| | Follicular Cell, Hyperplasia, Focal | 1 | | | | | 1 | | | | 1 | 25 1.2 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | |
| Epididymis | | + | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic Active | | | | | 1 | | | | | | | 4 1.0 |
| Preputial Gland | | + | + | + | + | + | + | + | + | + | + | 60 |
| Abscess | | | | | | | | | | | | 1 4.0 |
| Dilatation | | 2 | 3 | 2 | 1 | | 4 | 4 | 3 | 2 | 1 | 43 2.3 |
| Inflammation, Chronic | | | | | | 1 | | | 1 | | | 6 1.3 |
| Inflammation, Chronic Active | | | | | | | | 2 | | 1 | | 20 1.8 |
| Prostate | | + | + | + | + | + | + | + | + | + | + | 59 |
| Inflammation, Chronic | | | | | | | | | | | | 14 1.0 |
| Seminal Vesicle | | + | + | + | + | + | + | + | + | + | + | 60 |
| Dilatation | | | | | | | | | | | | 7 2.1 |
| Testes | | + | + | + | + | + | + | + | + | + | + | 60 |

* .. 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 45

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 |
| | | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 |
| | <hr/> | | | | | | | | | |
| | ANIMAL ID | 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 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 60 | |
| Congestion | | | | | | | | | | | | 1 4.0 |
| Lymph Node | | | | | | | | | | | 1 | |
| Lymph Node, Mandibular | + | + | + | + | + | M | + | + | + | M | 53 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 59 | |
| Granuloma | | | | | | | | | | | | 1 1.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 3 1.0 |
| Hemorrhage | | | | | | | 2 | | | | | 9 1.8 |
| Hyperplasia, Histiocytic | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | 4 | | 2 3.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hematopoietic Cell Proliferation | | 3 | | | | | | | | | | 13 2.4 |
| Hyperplasia, Reticulum Cell | | | | | | | | | | | | 1 2.0 |
| Thymus | + | + | + | M | + | + | + | + | M | + | 44 | |
| Atrophy | | | | | | | | | | | | 2 2.5 |
| Cyst | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 1.5 |
| Necrosis | | | | | | | | | | | | 1 1.0 |

INTEGUMENTARY 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

Page 46

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 |
| | | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | |
| | ANIMAL ID | 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 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | 1 |
| Skin | + | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic Active | | | | | | | | | | | 3 1.3 |
| Epidermis, Hyperplasia | | | | | | | | | | | 2 1.0 |
| Subcutaneous Tissue, Abscess | | | | | | | | | | | 1 3.0 |
| Subcutaneous Tissue, Edema | | | | | | | | | | | 1 3.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Bone | + | + | + | + | + | + | + | + | + | + | 60 |
| Skeletal Muscle | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | 1 1.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|--------|
| Brain | + | + | + | + | + | + | + | M | + | + | 59 |
| Mineralization | | | 1 | 1 | | | 1 | | | 2 | 25 1.3 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | 60 |
| Infiltration Cellular, Lymphocyte | | | 1 | | 1 | | | 1 | | | 19 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | 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

Page 47

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0
7
3
1 | 0
6
2
2 | 0
4
5
6 | 0
7
3
1 | 0
4
5
6 | 0
7
3
0 | 0
7
2
9 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | |
| | ANIMAL ID | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | |
| | | | | | | | | | | | | * TOTALS |
| | Alveolar Epithelium, Hyperplasia
Interstitial, Inflammation, Chronic Active | 2 | | | | | | | | | | 5 2.2
2 1.5 |
| | Nose | + | + | + | + | + | + | + | + | + | + | 60 |
| Olfactory Epithelium, Degeneration,
Hyaline | 1 | 2 | | 1 | 2 | | | | 1 | | 32 1.5 | |
| Respiratory Epithelium, Degeneration,
Hyaline | | | | | | | | | | | 2 1.0 | |
| Respiratory Epithelium, Proliferation
Connective Tissue | | | | | | | | | | | 1 3.0 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | 60 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | 3 | |
| URINARY SYSTEM | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | 60 | |
| Cyst | | | | | | | | | | | 2 2.0 | |
| Inflammation, Chronic | | | | | 2 | | | 1 | 1 | | 16 1.2 | |
| Metaplasia, Osseous | | | | | | 1 | | | | | 3 1.0 | |
| Nephropathy | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | 1 | 47 1.3 | |
| Pigmentation | | | | | | | | | | | 1 3.0 | |
| Capsule, Fibrosis | | | | | | | | | | | 1 2.0 | |
| Renal Tubule, Necrosis | | | | | | | | | | | 1 2.0 | |
| Renal Tubule, Pigmentation | | | | | | | | | | | 1 3.0 | |

* .. 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 48

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|----------------|
| B6C3F1 MICE MALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 7 | 7 | 4 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 3 | 2 | 5 | 2 | 3 |
| | 1 | 2 | 6 | 1 | 6 | 0 | 9 | 6 | 9 | 1 | |
| | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |
| | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | |
| Dilatation | | | | | | | | | | | 60 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | 2 2.0
9 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 49

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|------------------------------|-------------|--------------------|---|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | males
(cont...) | |
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | | 7 |
| | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 2 | 3 | | 3 |
| | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | | 0 |
| | ANIMAL ID | 0 | | 0 |
| | | 0 | | 0 |
| | | 1 | | 1 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | | 4 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | 4 |
| | | | |

ALIMENTARY SYSTEM

| | |
|---|---|
| Esophagus | + |
| Gallbladder | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Hyperplasia, Lymphoid
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Liver | + |
| Basophilic Focus | |
| Clear Cell Focus | |
| Eosinophilic Focus | |
| Infarct | |
| Inflammation, Chronic Active | |

* .. 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 50

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | | DAY ON TEST | 0 |
|------------------------------|--|-------------|
|------------------------------|--|-------------|

* .. 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 51

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|------------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | males
(cont...) |
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | |
| | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | |
| | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | |
| | ANIMAL ID | 0 | |
| | | 0 | |
| | | 1 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

CARDIOVASCULAR SYSTEM

| |
|--------------------------------------|
| Blood Vessel | + |
| Heart | + |
| Fibrosis | | 1 | | | | | | | | | | | | | | 2 | | | | | | | | |
| Artery, Inflammation, Chronic Active | |
| Atrium, Thrombosis | | | | | | | | | | | | | | | 4 | | | | | | | 3 | | |
| Ventricle, Thrombosis | | | | | | | | | | | | | | 3 | | | | | | | | | | |

ENDOCRINE SYSTEM

| |
|--------------------------|
| Adrenal Cortex | + |
| Hypertrophy, Focal | | | | 1 | | | | 1 | | | 1 | 1 | | | 1 | 1 | | | 1 | | | 3 | | 2 |
| Subcapsular, Hyperplasia | 1 | | 1 | 1 | | | 2 | 1 | | | 1 | 1 | | | 1 | | | | | 1 | 1 | | | |
| Adrenal Medulla | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + |
| Hyperplasia | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | 2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| Pars Distalis, Cyst | 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 52

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | males
(cont...) | |
|-------------------------------------|-------------|---------------|--------------------|---|
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | | |
| | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | 0 | | |
| | ANIMAL ID | 0 | 0 | | |
| | | 0 | 0 | | |
| | | 1 | 1 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | | |
| | | 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 |
| | | Thyroid Gland | + | | + |
| C-cell, Hyperplasia, Focal | | | | |
| Follicle, Cyst | | | | |
| Follicular Cell, Hyperplasia, Focal | | 1 | | 1 | 1 | | | 2 | | 1 | 1 | 1 | | 1 | 2 | 2 | | 1 | | | 1 | 4 | 1 | | 1 | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|------------------------------|
| Epididymis | + |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | | | |
| Spermatocele |
| Preputial Gland | + |
| Dilatation | 4 | | 3 | 2 | 4 | 2 | 1 | | 4 | 4 | 4 | | 2 | 1 | 3 | 3 | 4 | | | 4 | 4 | 2 | 2 | | | |
| Inflammation, Chronic | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | 4 | | 2 | 4 | 2 | | 4 | | 4 | 2 | 2 | | | 4 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |
| Inflammation, Chronic | | | 1 | | 1 | | 1 | | | | | | | | | | | | 1 | | | | | | | 1 |
| Inflammation, Chronic Active | | 3 | | | | |
| Seminal Vesicle | + |
| Atrophy | 2 | | | | |
| Dilatation | 2 |
| Inflammation, Chronic Active | |

* .. 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 53

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | | DAY ON TEST | 0 | | |
|------------------------------|--|-------------|--------------------|
| | | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | |
| | | | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | 0 |
| B6C3F1 MICE MALE
1500 PPM | | ANIMAL ID | |
| | | | 0 | |
| | | | 0 | |
| | | | 1 | |
| | | | 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 |
| | | 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...) |

| |
|-----------------------------------|
| Testes | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Seminiferous Tubule, Degeneration | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |

HEMATOPOIETIC SYSTEM

| |
|----------------------------------|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Pigmentation, Hemosiderin |
| Lymph Node, Mesenteric | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | |
| Hemorrhage | | | | 1 | 1 | | 2 | | | | | | | | | | | 1 | | | 1 | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| Spleen | + |
| Hematopoietic Cell Proliferation | | | 1 | | | | | | | | | | 1 | | | | 2 | 2 | | | 1 | 3 | | 3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | M | + | M | + |
| Atrophy | | | 2 | | | 4 | | | | | | | | | | | | | | | 2 | | 2 | |
| Ectopic Parathyroid Gland | X | | X | |

INTEGUMENTARY SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | DAY ON TEST | 0 |
|---|-------------|
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 3 | 2 | 3 | 3 |
| | | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | 0 |
| B6C3F1 MICE MALE
1500 PPM | ANIMAL ID | 0 |
| | | 0 |
| | | 1 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 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 |
| Mammary Gland | | + | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | | + |
| Inflammation, Chronic Active | | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | |
| Ulcer | |
| Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Subcutaneous Tissue, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 2 | | | | | | |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

| |
|----------------|
| Brain | + |
| Cyst |
| Mineralization | 1 | | | | 1 | 1 | | | | | | 1 | | | | | | 1 | | 1 | | | 1 | | | |

RESPIRATORY SYSTEM

| |
|--------------------------------------|
| Lung | + |
| Infiltration Cellular, Histiocyte |
| Infiltration Cellular, Lymphocyte |
| Inflammation, Chronic Active |
| Alveolar Epithelium, Hyperplasia |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 2 | | | | | | 4 |

* .. 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | males
(cont...) | |
|--|-------------|--------------------|---|
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | | 7 |
| | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | | 3 |
| | | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 0 | 9 | 1 | | 0 |
| | ANIMAL ID | 0 | | 0 |
| | | 1 | | |
| | | 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 | | |
| | | 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 | | |
| Pleura, Inflammation, Chronic | | 1 | | |
| Nose | | | |
| Olfactory Epithelium, Degeneration, Hyaline | | + | | |
| Respiratory Epithelium, Degeneration, Hyaline | | 2 | | 1 | | | | 1 | 2 | | | | | 1 | | 2 | | 2 | 2 | | 2 | | 2 | 2 | | | | |
| Respiratory Epithelium, Hyperplasia, Glandular | | 1 | | |
| Trachea | | | |
| | | + | | |
| SPECIAL SENSES SYSTEM | | | |
| | | | |
| Eye | | | |
| Cornea, Inflammation, Chronic Active | | | |
| Harderian Gland | | | |
| Inflammation, Chronic Active | | + | | |
| URINARY SYSTEM | | | |
| | | | |
| Kidney | | + | | |
| Inflammation, Chronic | | 1 | | |
| Inflammation, Chronic Active | | 1 | | |
| Metaplasia, Osseous | | 4 | | |
| Nephropathy | | 2 | 2 | 2 | 1 | 1 | | 1 | | | 1 | | 1 | 1 | 1 | 3 | 3 | 1 | | 3 | | 1 | 2 | 1 | 1 | | | |
| Bilateral, Hydronephrosis | | 2 | | |

* .. 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 56

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|------------------------------|-------------|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 2 | 2 | 3 | 2 | 0 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 | 1 | 3 | 5 | 3 | 3 | 3 | 2 | 3 | 3 |
| | 1 | 9 | 9 | 1 | 9 | 9 | 1 | 0 | 6 | 0 | 1 | 9 | 6 | 1 | 0 | 0 | 8 | 1 | 6 | 0 | 0 | 0 | 9 | 1 | 0 | |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 1 |
| | | 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 |
| | | 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 |
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TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | DAY ON TEST | 0 |
|--|-------------|
| | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 |
| | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | 6 | 1 |
| B6C3F1 MICE MALE
1500 PPM | ANIMAL ID | 0 |
| | | 0 |
| | | 1 |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | | 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 |
| Mixed Cell Focus | | | | X | | 3 | |
| Pigmentation | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Centrilobular, Cytomegaly | |
| Centrilobular, Fatty Change | | | | | | | | | 1 | | | | | 1 | | 1 | | | | | | | 1 | | | |
| Mesentery | | | | | | + | + | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | 4 | |
| Artery, Inflammation, Chronic Active | | | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | 2 | |
| Pancreas | | + |
| Inflammation, Chronic | |
| Acinar Cell, Atrophy | | | | | | | | | | | | | | | | 4 | | | | | | | | | | |
| Acinar Cell, Vacuolization Cytoplasmic | |
| Salivary Glands | | + |
| Inflammation, Chronic | | 1 | | | | | | | | 1 | 1 | | | | | | | | 1 | | | | 1 | | 1 | |
| Stomach, Forestomach | | + |
| Hyperplasia | |
| Necrosis | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Stomach, Glandular | | + |
| Developmental Malformation | |
| Necrosis | |
| Tooth | | + | + | | | | | | | | | | | | + | | | | | + | | | + | | + | |
| Developmental Malformation | | X | X | | | | | | | | | | | X | | | | | | X | | | 4 | | 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

Page 59

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|------------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | | |
| | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 | |
| | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | 6 | 1 |
| | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | | |
| | | 1 | 1 | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | | 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 |
| | | males (cont...) | |

CARDIOVASCULAR SYSTEM

| |
|--------------------------------------|
| Blood Vessel | + |
| Heart | + |
| Fibrosis |
| Artery, Inflammation, Chronic Active | |
| Atrium, Thrombosis |
| Ventricle, Thrombosis |

ENDOCRINE SYSTEM

| |
|--------------------------|
| Adrenal Cortex | + |
| Hypertrophy, Focal |
| Subcapsular, Hyperplasia | 1 | | | 1 | 2 | | | 1 | 1 | | 1 | | 2 | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | 1 |
| Adrenal Medulla | + |
| Islets, Pancreatic | + |
| Hyperplasia |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M |
| Pituitary Gland | + |
| Pars Distalis, Cyst |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 |
|-------------------------------------|-------------|--------------------|
| | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | | |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 | |
| | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | 6 | 1 |
| | | |
| ANIMAL ID | 0 | 0 |
| | 0 | 0 |
| | 1 | 1 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 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 | males
(cont...) |
| Thyroid Gland | | + | |
| C-cell, Hyperplasia, Focal | | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Follicular Cell, Hyperplasia, Focal | | 1 | | | 1 | | 1 | 1 | | | 2 | | 2 | | | | 1 | | | | 2 | 1 | 1 | | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|------------------------------|
| Epididymis | + |
| Inflammation, Chronic Active | | 2 | | | | | | | | | | | | | | | | | 3 | | | | | | |
| Spermatocele |
| Preputial Gland | + |
| Dilatation | 4 | | 3 | 3 | | 1 | 2 | | 4 | 1 | | 2 | 3 | 2 | 3 | | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 3 | |
| Inflammation, Chronic | | | 1 | | | | | | | | | | | | 1 | | | | | | | | | | |
| Inflammation, Chronic Active | 2 | 2 | | 4 | | | 2 | | 1 | 1 | | 1 | | | | | | | 1 | 2 | | 1 | 1 | | |
| Prostate | + |
| Inflammation, Chronic | 2 | | 1 | | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | 1 |
| Inflammation, Chronic Active | | 1 | | | |
| Seminal Vesicle | + |
| Atrophy |
| Dilatation | 2 | | 3 | | 2 |
| Inflammation, Chronic Active | |

* .. 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 61

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|------------------------------|-------------|--------------------|---|---|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | males
(cont...) | | |
| | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | | 7 | |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | | 5 | 3 |
| | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | | 6 | 1 |
| | | | | |
| | ANIMAL ID | 0 | | 0 | 0 |
| | | 0 | | 0 | 0 |
| | | 1 | | 1 | 1 |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 | 7 |
| | | 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 |

| |
|-----------------------------------|
| Testes | + |
| Seminiferous Tubule, Degeneration | | | | | | | | | | | | | | | | | | | | 1 | | | | | |

HEMATOPOIETIC SYSTEM

| |
|----------------------------------|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia |
| Lymph Node, Mandibular | + |
| Hyperplasia, Lymphoid |
| Pigmentation, Hemosiderin |
| Lymph Node, Mesenteric | + |
| Hematopoietic Cell Proliferation | |
| Hemorrhage |
| Hyperplasia, Lymphoid |
| Spleen | + |
| Hematopoietic Cell Proliferation | |
| Hyperplasia, Lymphoid |
| Thymus | + |
| Atrophy |
| Ectopic Parathyroid Gland |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 62

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
1500 PPM | | DAY ON TEST | 0 | | | |
|------------------------------|--|-------------|--------------------|
| | | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | | |
| | | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 | |
| | | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | 6 | 1 | |
| B6C3F1 MICE MALE
1500 PPM | | ANIMAL ID | 0 | | | |
| | | | 0 | | |
| | | | 1 | | |
| | | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | |
| | | | 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 | males
(cont...) |

Mammary Gland M

Skin +
Inflammation, Chronic Active 1
Ulcer
Epidermis, Hyperplasia
Subcutaneous Tissue, Inflammation, Chronic Active

MUSCULOSKELETAL SYSTEM

Bone +

NERVOUS SYSTEM

Brain +
Cyst X
Mineralization 1 1 1 1

RESPIRATORY SYSTEM

Lung +
Infiltration Cellular, Histiocyte 2
Infiltration Cellular, Lymphocyte 1 1 1 1
Inflammation, Chronic Active 2 2 4 2
Alveolar Epithelium, Hyperplasia
Artery, Inflammation, Chronic Active

* .. 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 63

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|------------------------------|-------------|-----------------|
| | DAY ON TEST | 0 | 0 | |
| | | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 |
| | | 9 | 9 | 6 | 9 | 9 | 1 | 9 | 6 | 1 | 0 | 0 | 9 | 6 | 0 | 6 | 1 | 0 | 0 | 7 | 1 | 9 | 0 | 9 | 6 | 1 |
| B6C3F1 MICE MALE
1500 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 1 | 1 | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | | 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 |
| | | males (cont...) | |

Pleura, Inflammation, Chronic

| | |
|--|---|
| Nose | + |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | | | 2 | 2 | 2 | | 2 | | 2 | 2 | 2 | | 2 | | | 1 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | 1 | | | | | 1 | | 2 | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia, Glandular | | 2 |

| |
|---------|
| Trachea | + |
|---------|

SPECIAL SENSES SYSTEM

| | |
|--------------------------------------|---|
| Eye | |
| Cornea, Inflammation, Chronic Active | 3 |
| Harderian Gland | + |
| Inflammation, Chronic Active | 3 |

URINARY SYSTEM

| |
|------------------------------|
| Kidney | + |
| Inflammation, Chronic | 1 |
| Inflammation, Chronic Active | | 1 |
| Metaplasia, Osseous | 2 |
| Nephropathy | 1 | | 1 | 1 | 1 | | 3 | | 1 | 2 | 1 | 2 | | 1 | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Bilateral, Hydronephrosis | 1 |

* .. 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 64

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-----------------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0729 | 0729 | 0456 | 0729 | 0729 | 0729 | 0729 | 0456 | 0729 | 0729 | 0729 | 0729 | 0456 | 0729 | 0456 | 0729 | 0729 | 0729 | 0671 | 0729 | 0729 | 0729 | 0456 | 0729 | 0729 |
| | | 0729 | 0729 | 0456 | 0729 | 0729 | 0729 | 0729 | 0456 | 0729 | 0729 | 0729 | 0729 | 0456 | 0729 | 0456 | 0729 | 0729 | 0729 | 0671 | 0729 | 0729 | 0729 | 0456 | 0729 | 0729 |
| | | 2 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 2 | 5 | 3 | 5 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 2 | 5 | 3 |
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| | ANIMAL ID | 00146 | 00001 |
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| | | males (cont...) | |
| Urinary Bladder | | + | + |
| Dilatation | | | 3 |
| Infiltration Cellular, Lymphocyte | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | |
| Inflammation, Chronic Active | | |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

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| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
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ALIMENTARY SYSTEM

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|------------------------------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Gallbladder | + | + | M | M | + | M | + | + | + | + | 50 | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Intestine Large, Rectum | + | + | + | M | + | + | + | + | + | + | 59 | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Hyperplasia, Lymphoid | | | | | | | 3 | | | | | 1 | 3.0 |
| Inflammation, Chronic Active | | | | | | | 1 | | | | | 1 | 1.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Hyperplasia, Lymphoid | | | | | 4 | | | | | | | 1 | 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Basophilic Focus | | | | | | | | | | | | 2 | 3.0 |
| Clear Cell Focus | | | | X | | | | | | | | 2 | |
| Eosinophilic Focus | | | | X | | | | | | | | 5 | 3.0 |
| Infarct | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 3 | 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 66

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|--|-----------|---|---|---|---|---|---|---|---|---|---|----------|-----|
| DAY ON TEST | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 | | |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 | | |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 | | |
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| B6C3F1 MICE MALE
1500 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
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| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| | | | | | | | | | | | | * TOTALS | |
| Mixed Cell Focus | | | | | | | | | | | | 3 | 2.5 |
| Pigmentation | | | | | | | | | | | | 1 | 1.0 |
| Centrilobular, Cytomegaly | | | | | | | | | | | | 1 | 1.0 |
| Centrilobular, Fatty Change | | 1 | | | | | | | | | | 6 | 1.0 |
| <hr/> | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | 3 | |
| Hemorrhage | | | | | | | | | | | | 1 | 4.0 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 1 | 4.0 |
| Fat, Necrosis | | | | | | | | | | | | 2 | 2.0 |
| <hr/> | | | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic | | | | | | | | | | | | 1 | 1.0 |
| Acinar Cell, Atrophy | | | | | | | | | | | | 1 | 4.0 |
| Acinar Cell, Vacuolization Cytoplasmic | | 2 | | | | | | | | | | 1 | 2.0 |
| <hr/> | | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic | | 1 | 1 | | | 1 | | | | | | 17 | 1.1 |
| <hr/> | | | | | | | | | | | | | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | | | | | | | | | | 2 | 1.5 |
| Necrosis | | | | | | | | | | | | 1 | 1.0 |
| <hr/> | | | | | | | | | | | | | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | 60 | |
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| Necrosis | | | | | | | | | | | | 1 | 1.0 |
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| Tooth | | | | | | | | | | | | 7 | |
| Developmental Malformation | | | | | | | | | | | | 7 | 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

Page 67

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|------------------------------|-------------|----------|-------|-------|-------|-------|-------|-------|-------|--|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0727 | 0319 | 0719 | 0765 | 0779 | 0770 | 0746 | 0456 | |
| | | | | | | | | | | |
| | ANIMAL ID | 00171 | 00172 | 00173 | 00174 | 00175 | 00176 | 00177 | 00178 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | * TOTALS | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 60 | |
| Heart | + | + | + | + | + | + | + | + | + | + | 60 | |
| Fibrosis | | | | | | | | | | | | 2 1.5 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Atrium, Thrombosis | | | | | | | | | | | | 2 3.5 |
| Ventricle, Thrombosis | | | | | | | | | | | | 1 3.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hypertrophy, Focal | | 1 | 1 | 2 | | | 1 | | | | | 22 1.3 |
| Subcapsular, Hyperplasia | | | 1 | 1 | 1 | | | 2 | 1 | 1 | | 29 1.1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 58 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | 1 | | | | | | | | | 6 1.3 |
| Parathyroid Gland | + | + | + | M | + | M | + | + | + | + | 52 | |
| Pituitary Gland | + | + | + | + | + | M | + | + | + | + | 58 | |
| Pars Distalis, Cyst | | | | | | | | | | | | 2 1.5 |

* .. 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

Page 68

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|--------|--|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 | |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 | |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 | |
| | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 60 | |
| C-cell, Hyperplasia, Focal | | | | | | | | | | | 1 2.0 | |
| Follicle, Cyst | | | | | | | | | | | 1 2.0 | |
| Follicular Cell, Hyperplasia, Focal | | 2 | | 1 | | 1 | 1 | | | | 29 1.3 | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|----|--------|
| Epididymis
Inflammation, Chronic Active
Spermatocele | + | + | + | + | + | + | + | + | + | 60 | |
| | | | | | | | | | | | 5 1.6 |
| | 2 | | | | | | | | | | 1 2.0 |
| Preputial Gland
Dilatation
Inflammation, Chronic
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | 60 | |
| | 3 | | 2 | 2 | 2 | 2 | 4 | | 2 | | 45 2.6 |
| | | | | | | | | | 1 | | 4 1.0 |
| | | | | 2 | 2 | | 2 | | | | 23 2.3 |
| Prostate
Inflamation, Chronic
Inflammation, Chronic Active | + | + | M | + | + | + | + | + | + | 58 | |
| | 1 | | | | 1 | | | 1 | 1 | | 15 1.1 |
| | | | | | | | | | | | 2 2.0 |
| Seminal Vesicle
Atrophy
Dilatation
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | 60 | |
| | | | | | | | | | | | 1 2.0 |
| | | | | 2 | 2 | | | | | | 6 2.2 |
| | | | | | 3 | | | | | | 1 3.0 |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 69

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|-------|--|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 | |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 | |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 | |
| | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | | |
| Testes | | + | + | + | + | + | + | + | + | + | 60 | |
| Seminiferous Tubule, Degeneration | | | | | | | | | | | 3 1.0 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | |
|------------------------|----------------------------------|---|---|---|---|---|---|---|---|---|----|----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | | 60 | | |
| | Myeloid Cell, Hyperplasia | | | | | | | | | | | 1 | 3.0 |
| Lymph Node, Mandibular | + | + | + | M | + | + | + | + | + | M | 56 | 3 | 3.0 |
| | Hyperplasia, Lymphoid | | | | | | | | | | | 1 | 2.0 |
| | Pigmentation, Hemosiderin | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 58 | 1 | 2.0 |
| | Hematopoietic Cell Proliferation | | | | | | | | | | | 9 | 1.4 |
| | Hemorrhage | | | | | | | | | | | 2 | 3.0 |
| | Hyperplasia, Lymphoid | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | 58 | 15 | 1.9 |
| | Hematopoietic Cell Proliferation | | | | | | | | | | | 2 | 2.5 |
| | Hyperplasia, Lymphoid | | | | | | | | | | | | |
| Thymus | + | M | M | + | + | M | + | + | + | + | 52 | 7 | 2.4 |
| | Atrophy | | | | | | | | | | | 3 | |
| | Ectopic Parathyroid Gland | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 70

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|--------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 |
| | | | | | | | | | | | |
| B6C3F1 MICE MALE | ANIMAL ID | 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 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |
| Mammary Gland | | M | M | M | M | + | M | M | M | M | 3 |
| Skin | | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic Active | | 3 | | | | | | | | | 4 1.5 |
| Ulcer | | 1 | | | | | | | | | 1 1.0 |
| Epidermis, Hyperplasia | | | | | | | | | | | 1 1.0 |
| Subcutaneous Tissue, Inflammation, Chronic Active | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | |
| Bone | | + | + | + | + | + | + | + | + | + | 60 |
| | | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | |
| Brain | | + | + | + | + | + | + | + | + | + | 60 |
| Cyst | | | | | | | | | | | 1 |
| Mineralization | | | | 1 | 1 | 2 | | | 1 | | 15 1.1 |
| | | | | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | 60 |
| Infiltration Cellular, Histiocyte | | | 1 | | | | | | | | 2 1.5 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | 1 | | 15 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | 1 2.0 |
| Alveolar Epithelium, Hyperplasia | | | | 4 | | 1 | | | | | 6 2.5 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | 1 4.0 |

* .. 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 71

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|----------|-----|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 | |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 | |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 | |
| | | | | | | | | | | | | |
| B6C3F1 MICE MALE | ANIMAL ID | 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 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | * TOTALS | |
| Pleura, Inflammation, Chronic | | | | | | | | | | | 1 | 1.0 |
| | | | | | | | | | | | | |
| Nose | | | | | | | | | | | 59 | |
| Olfactory Epithelium, Degeneration, Hyaline | | | | | | | | | | | 30 | 1.8 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | | | 4 | 1.3 |
| Respiratory Epithelium, Hyperplasia, Glandular | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | 60 | |
| | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Eye | | | | | | | | | | | 1 | |
| Cornea, Inflammation, Chronic Active | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | 5 | |
| Inflammation, Chronic Active | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | 60 | |
| Inflammation, Chronic | | | | | | | | | | | 11 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | 1 | 4.0 |
| Metaplasia, Osseous | | | | | | | | | | | 1 | 2.0 |
| Nephropathy | | | | | | | | | | | 44 | 1.5 |
| Bilateral, Hydronephrosis | | | | | | | | | | | 1 | 2.0 |

* .. 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 72

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|-------|--|
| B6C3F1 MICE MALE
1500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 4 | |
| | | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 5 | 5 | |
| | | 7 | 1 | 9 | 1 | 9 | 5 | 9 | 0 | 6 | 6 | |
| | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 60 | |
| Dilatation | | | | | 2 | | | | | | 2 2.5 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | 9 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | 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

Page 73

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0730 | 0456 | 0731 | 0746 | 0770 | 0776 | 0773 | 0752 | 0771 | 0771 | 0705 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0744 | 0744 | 0774 | 0744 |
|---|-------------|
| | | 3500 | 5311 | 3356 | 3350 | 5360 | 5360 | 3352 | 5352 | 3331 | 3331 | 0009 | 0001 | 0330 | 0330 | 2291 | 0333 | 0329 | 0311 | 0311 | 5666 | 5560 | 3300 | 0741 |
| | ANIMAL ID | 0011 |
| | | 8811 |
| | | 1234 |
| Mesentery Fat, Necrosis | | + | | | | + | | | | | | | | | | | | | | | | | | |
| | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Pancreas Inflammation, Chronic | | + |
| Salivary Glands Inflammation, Chronic | | + |
| | | 1 | | | | 1 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| Stomach, Forestomach | | + |
| Stomach, Glandular Inflammation, Chronic Active | | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| Tooth Developmental Malformation | | | | | | | | | | | | | | | | | | | | + | | X | | |

CARDIOVASCULAR SYSTEM

| |
|--------------------------------------|
| Blood Vessel | + |
| Heart Fibrosis | + |
| Artery, Inflammation, Chronic Active | | 4 |

ENDOCRINE SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | males
(cont...) |
|-------------------------------------|-------------|--------------------|
| | | 7 | 4 | 7 | 7 | 4 | 7 | 4 | 7 | 6 | 7 | 7 | 0 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 4 | |
| | | 3 | 5 | 3 | 3 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | 0 | 0 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 3 | 0 | |
| | | 0 | 6 | 1 | 1 | 6 | 0 | 6 | 0 | 2 | 1 | 1 | 9 | 0 | 1 | 0 | 9 | 1 | 0 | 9 | 1 | 1 | 6 | 6 | 0 | 1 | |
| | | 0 | |
| 3000 PPM | ANIMAL ID | 0 | males
(cont...) |
| | | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | |
| Adrenal Cortex | | + | |
| Hypertrophy, Focal | | | | | 1 | | | | | 1 | 2 | | | | 1 | 1 | | 1 | | | 1 | | | | | | |
| Subcapsular, Hyperplasia | | | 2 | 2 | | 1 | 1 | | | 1 | 2 | 1 | | | 1 | | | | | | 1 | | | 1 | | 1 | |
| Adrenal Medulla | | + | |
| Islets, Pancreatic | | + | |
| Hyperplasia | | |
| Parathyroid Gland | | + | + | M | M | M | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | M | M | + | M | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | |
| Pars Distalis, Cyst | | |
| Thyroid Gland | | + | |
| Follicular Cell, Hyperplasia, Focal | | | 1 | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | | 1 | | 1 | | 2 | 2 | 2 | 1 | 2 | 1 | | 1 | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|-----------------|
| Epididymis | + |
| Granuloma Sperm | |
| Preputial Gland | + |
| Abscess |

* .. 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | DAY ON TEST | 0 | |
|-----------------------------------|-------------|--------------------|
| | | 7 | 4 | 7 | 7 | 4 | 7 | 4 | 7 | 6 | 7 | 7 | 0 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 4 | |
| B6C3F1 MICE MALE
3000 PPM | ANIMAL ID | 3 | 5 | 3 | 3 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | 0 | 0 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 3 | 0 | males
(cont...) |
| | | 0 | 6 | 1 | 1 | 6 | 0 | 6 | 0 | 2 | 1 | 1 | 9 | 0 | 1 | 0 | 9 | 1 | 0 | 9 | 1 | 1 | 6 | 6 | 0 | 1 | |
| | | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Dilatation | | 1 | | 1 | 2 | 4 | 4 | 4 | | 3 | 3 | | | 2 | | 3 | | 4 | 2 | | 2 | 4 | 1 | 2 | 2 | 1 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Inflammation, Chronic | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Inflammation, Chronic Active | | | | | 2 | | | | | 1 | | | | | 4 | | | | | 2 | | | | | 1 | | |
| Prostate | | + | |
| Hyperplasia | | |
| Inflammation, Acute | | |
| Inflammation, Chronic | | 1 | | | | | | |
| Seminal Vesicle | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Dilatation | | |
| Testes | | + | |
| Seminiferous Tubule, Degeneration | | |

HEMATOPOIETIC SYSTEM

| |
|-----------------------------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | 3 | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Congestion |
| Lymph Node | | | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Hemorrhage |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + |
| Pigmentation, Hemosiderin | 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

Page 77

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | males
(cont...) | |
|----------------------------------|-------------|------------------------|--------------------|---|
| | | 7 | 4 | 7 | 7 | 4 | 7 | 4 | 7 | 6 | 7 | 7 | 0 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 4 | | | |
| | | 3 | 5 | 3 | 3 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | 0 | 0 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 3 | 0 | | |
| | | 0 | 6 | 1 | 1 | 6 | 0 | 6 | 0 | 2 | 1 | 1 | 9 | 0 | 1 | 0 | 9 | 1 | 0 | 9 | 1 | 1 | 6 | 6 | 0 | 1 | | |
| | | 0 | 0 | | |
| 3000 PPM | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | males
(cont...) | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 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 | | |
| | | Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | | + |
| | | Angiectasis | | |
| Hematopoietic Cell Proliferation | | 2 | | | | | | | | | | | | 1 | | | | | 2 | | | | | | | | | |
| Hemorrhage | | | | |
| Spleen | | + | + | | |
| Hematopoietic Cell Proliferation | | 2 | | | | | | | | | | | | 1 | | | | | 2 | | 1 | | 1 | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | M | + | + | + | + | + | | |
| Atrophy | | 3 | | | | | | | | | | | | 3 | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | |
|---------------------------------------|--|--|
| Mammary Gland | | M | |
| Skin | | + | |
| Inflammation, Chronic Active | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Epidermis, Hyperplasia | | | | | | 1 | 2 | | | | | | | | | | | | | | | | 1 | | | | |
| Prepuce, Inflammation, Chronic Active | | |

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

Page 78

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | males
(cont...) |
|------------------------------|-------------|--------------------|
| | | 7 | 4 | 7 | 7 | 4 | 7 | 4 | 7 | 6 | 7 | 7 | 0 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 4 | |
| | | 3 | 5 | 3 | 3 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | 0 | 0 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 5 | 5 | 3 | 0 | |
| | | 0 | 6 | 1 | 1 | 6 | 0 | 6 | 0 | 2 | 1 | 1 | 9 | 0 | 1 | 0 | 9 | 1 | 0 | 9 | 1 | 1 | 6 | 6 | 0 | 1 | |
| | | 0 | |
| B6C3F1 MICE MALE
3000 PPM | ANIMAL ID | 0 | males
(cont...) |
| | | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 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 | | + | |
| Mineralization | | 1 | 1 | | | | 1 | | | | | 1 | | | 1 | 1 | | 1 | | | 1 | | | | | | |

RESPIRATORY SYSTEM

| | |
|--|---|
| Lung | + |
| Congestion |
| Infiltration Cellular, Lymphocyte | | 1 | | | | 1 | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Interstitial, Inflammation, Chronic Active |
| Nose | + |
| Exudate | |
| Foreign Body | 2 | | |
| Olfactory Epithelium, Degeneration, Hyaline | 1 | | | 1 | | | | | | | 2 | | 1 | | 2 | | 2 | 1 | 1 | | 2 | | 2 | 2 | | |
| Respiratory Epithelium, Degeneration, Hyaline | |
| Respiratory Epithelium, Hyperplasia, Glandular | |
| Trachea | + |

SPECIAL SENSES SYSTEM

| | |
|-----------------|---|
| Eye | + |
| Harderian 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|------------------------------|-------------|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0729 |
| | | 0729 |
| | | 0729 |
| | | 0729 |
| | ANIMAL ID | 00206 | 00207 | 00208 | 00209 | 00210 | 00211 | 00212 | 00213 | 00214 | 00215 | 00216 | 00217 | 00218 | 00219 | 00220 | 00221 | 00222 | 00223 | 00224 | 00225 | 00226 | 00227 | 00228 | 00229 | 00230 | 00231 |

males
(cont...)

ALIMENTARY SYSTEM

| |
|------------------------------|
| Esophagus | + |
| Gallbladder | M | + | + | + | + | + | + | M | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Intestine Small, Jejunum | + |
| Hyperplasia, Lymphoid |
| Liver | + |
| Basophilic Focus |
| Cyst |
| Eosinophilic Focus |
| Infarct |
| Inflammation, Chronic Active | |
| Centrilobular, Fatty Change | |

* .. 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 81

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|------------------------------|-------------|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 7 | 7 | 7 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 2 | 9 | 2 | 3 | 5 | 3 | 3 | 2 | |
| | | 9 | 9 | 9 | 9 | 1 | 1 | 6 | 9 | 1 | 0 | 1 | 6 | 7 | 1 | 0 | 6 | 7 | 9 | 1 | 6 | 1 | 0 | 0 | |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 2 |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| males (cont...) | |

| | |
|--|---|
| Mesentery
Fat, Necrosis |
| Pancreas
Inflammation, Chronic | + |
| Salivary Glands
Inflammation, Chronic | + | 1 | | + | + | + | | + | 1 | 1 | | | | 1 | 1 | | + | + | | 1 | | | 2 | |
| Stomach, Forestomach | + |
| Stomach, Glandular
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + |
| Tooth
Developmental Malformation | | | | | | | | | | | | | | | | | + | X | | | | | | |

CARDIOVASCULAR SYSTEM

| | |
|---|---|
| Blood Vessel | + |
| Heart
Fibrosis
Artery, Inflammation, Chronic Active | + | 1 | + | + |
| | | | | | | | | | | | | | | | | 3 | | | | | | | | |

ENDOCRINE SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0
2
9 | 0
7
9 | 0
7
9 | 0
7
9 | 0
7
1 | 0
7
1 | 0
4
6 | 0
7
9 | 0
7
1 | 0
7
0 | 0
7
1 | 0
4
6 | 0
5
7 | 0
7
1 | 0
7
0 | 0
6
7 | 0
7
9 | 0
6
1 | 0
7
4 | 0
4
5 | 0
7
3 | 0
7
3 | 0
7
3 | 0
7
3 | 0
7
9 | 0
7
2 |
|-------------------------------------|-------------|-------------|
| | ANIMAL ID | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
1
0 | 0
0
2
1
1 | 0
0
2
1
2 | 0
0
2
1
3 | 0
0
2
1
4 | 0
0
2
1
5 | 0
0
2
1
6 | 0
0
2
1
7 | 0
0
2
1
8 | 0
0
2
1
9 | 0
0
2
2
0 | 0
0
2
2
1 | 0
0
2
2
2 | 0
0
2
2
3 | 0
0
2
2
4 | 0
0
2
2
5 | 0
0
2
2
6 | 0
0
2
2
7 | 0
0
2
2
8 | 0
0
2
2
9 | 0
0
2
2
0 | |
| | | |
| | | |
| Adrenal Cortex | | + |
| Hypertrophy, Focal | | 2 | 2 | | 1 | | | | 3 | 1 | 1 | 2 | | | | | | 1 | 1 | | 1 | 1 | | 2 | | 2 | 1 |
| Subcapsular, Hyperplasia | | 1 | 1 | 1 | 2 | 1 | | | | | | | | | 1 | 1 | 1 | 1 | | 2 | 1 | 1 | | | 2 | | |
| | | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | |
| Islets, Pancreatic | | + |
| Hyperplasia | | | 1 | | |
| | | |
| Parathyroid Gland | | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Cyst | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| | | |
| Thyroid Gland | | + |
| Follicular Cell, Hyperplasia, Focal | | 1 | 1 | 2 | 2 | 1 | | | | | | | 1 | | 1 | | 2 | | 1 | 2 | 1 | 1 | | | 1 | 2 | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|-------------------------------|
| Epididymis
Granuloma Sperm | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | + | + | + | + | + | + | + | + | + |
| |
| Preputial Gland
Abscess | + |
| | 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 83

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | DAY ON TEST | 0 |
|--|--|-------------|
|--|--|-------------|

HEMATOPOIETIC SYSTEM

| |
|-----------------------------------|
| Bone Marrow | + |
| Congestion |
| Lymph Node |
| Hemorrhage |
| Pancreatic, Hyperplasia, Lymphoid | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + | |
| Pigmentation, Hemosiderin |

* .. 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 84

TDMS No. 05068 - 10
Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
3
1 | 0
7
3
1 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | 0
4
5
6 | 0
7
3
7 | 0
5
3
1 | 0
7
3
0 | 0
7
2
6 | 0
6
9
7 | 0
7
2
1 | 0
4
3
6 | 0
7
5
1 | 0
7
3
0 | 0
7
3
0 | 0
7
3
9 | 0
7
2
0 | 0
7
3
9 |
|---|-------------|-----------------------|
| | ANIMAL ID | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
1
0 | 0
0
2
1
1 | 0
0
2
1
2 | 0
0
2
1
3 | 0
0
2
1
4 | 0
0
2
1
5 | 0
0
2
1
6 | 0
0
2
1
7 | 0
0
2
1
8 | 0
0
2
1
9 | 0
0
2
2
0 | 0
0
2
2
1 | 0
0
2
2
2 | 0
0
2
2
3 | 0
0
2
2
4 | 0
0
2
2
5 | 0
0
2
2
6 | 0
0
2
2
7 | 0
0
2
2
8 | 0
0
2
2
9 |
| | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| | | |
| Lymph Node, Mesenteric
Angiectasis
Hematopoietic Cell Proliferation
Hemorrhage | | 1 | 1 | 2 | | | | | | | 2 | 2 | | | | | 2 | | | | | | | | |
| Spleen
Hematopoietic Cell Proliferation | | 2 | | | | 1 | | | | | | | 3 | | | | | | | | | | | 1 | |
| Thymus
Atrophy | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + |

INTEGUMENTARY SYSTEM

| |
|---------------------------------------|
| Mammary Gland | M | M | + | M | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | + |
| Inflammation, Chronic Active | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Epidermis, Hyperplasia | | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | |
| Prepuce, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 3 | | | | | | | | |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

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

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 85

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | males
(cont...) | |
|------------------------------|-------------|----------------------|--------------------|---|
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 2 | 9 | 2 | 3 | 5 | 3 | 3 | 3 | 2 | | 2 |
| | 9 | 9 | 9 | 9 | 1 | 1 | 6 | 9 | 1 | 0 | 1 | 6 | 7 | 1 | 0 | 6 | 7 | 9 | 1 | 6 | 1 | 0 | 0 | 9 | 9 | | |
| | ANIMAL ID | 0 | 0 | | 0 |
| | | 0 | 0 | | 0 |
| | | 2 | 2 | | 2 |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | |
| | | 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 Mineralization | + | | + |

RESPIRATORY SYSTEM

| | |
|--|---|
| Lung | + |
| Congestion | | | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | 2 | | 1 | | | 1 | | | | 1 | | | | | | 1 | | | | | |
| Alveolar Epithelium, Hyperplasia |
| Interstitial, Inflammation, Chronic Active |
| Nose | + |
| Exudate | | | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Foreign Body |
| Olfactory Epithelium, Degeneration, Hyaline | 1 | 1 | | 1 | | | | | 1 | | | 2 | 2 | | | | 2 | | | 2 | 2 | 2 | 2 | 2 | 2 | |
| Respiratory Epithelium, Degeneration, Hyaline | |
| Respiratory Epithelium, Hyperplasia, Glandular | |
| Trachea | + |

SPECIAL SENSES SYSTEM

| |
|-----------------|
| Eye |
| Harderian Gland | |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 86

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 |
| | | 3 | 3 | 5 | 3 | 3 | 5 | 2 | 3 | 3 |
| | | 1 | 0 | 6 | 0 | 1 | 6 | 9 | 1 | 0 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 60 | |
| Gallbladder | + | + | + | M | + | + | + | + | M | + | 50 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 57 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 2.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | |
| Basophilic Focus | | X | | | | | | | | | | 3 1.0 |
| Cyst | | | | | | | 4 | | | | | 1 4.0 |
| Eosinophilic Focus | 2 | | | | | | | | | | | 4 1.3 |
| Infarct | | | | | | | | | 4 | | | 2 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 1.0 |
| Centrilobular, Fatty Change | | | | | 1 | | | | | | | 1 1.0 |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 88

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | | |
|---|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|-------|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0
7
3
1 | 0
7
3
0 | 0
4
5
6 | 0
7
3
0 | 0
7
3
1 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | | | |
| | ANIMAL ID | 0
0
2
3
1 | 0
0
2
3
2 | 0
0
2
3
3 | 0
0
2
3
4 | 0
0
2
3
5 | 0
0
2
3
6 | 0
0
2
3
7 | 0
0
2
3
8 | 0
0
2
3
9 | 0
0
2
4
0 | | |
| | | | | | | | | | | | | * TOTALS | |
| | Mesentery
Fat, Necrosis | | | | | | | | | | | 2 | 1 2.0 |
| | Pancreas
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | 60
1 1.0 | |
| | Salivary Glands
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | 60
14 1.1 | |
| | Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 60 | |
| | Stomach, Glandular
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | 59
1 1.0 | |
| | Tooth
Developmental Malformation | | | | | | | | | | | 2 | 2 |
| | CARDIOVASCULAR SYSTEM | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Heart
Fibrosis
Artery, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | 60
1 1.0
2 3.5 | | |
| ENDOCRINE 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 89

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|--------|----------|
| | | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | |
| | 3 | 3 | 5 | 3 | 3 | 5 | 2 | 3 | 3 | 3 | | |
| | 1 | 0 | 6 | 0 | 1 | 6 | 9 | 1 | 0 | 0 | | |
| | | | | | | | | | | | | |
| ANIMAL ID | 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 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hypertrophy, Focal | | 2 | | 1 | 1 | | 1 | | 1 | | 24 1.4 | |
| Subcapsular, Hyperplasia | 1 | 1 | 1 | 1 | 1 | | 2 | 1 | | | 31 1.2 | |
| | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 59 | |
| | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | | | | | | | | | 1 1.0 | |
| | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | M | M | + | + | M | + | + | 46 | |
| | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 55 | |
| Pars Distalis, Cyst | | | | | | | | | | | 1 1.0 | |
| | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 60 | |
| Follicular Cell, Hyperplasia, Focal | 2 | 2 | | 1 | 1 | | 2 | 2 | 1 | 2 | 40 1.4 | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 60 |
| Granuloma Sperm | | | | | | | | | | | 1 3.0 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | 60 |
| Abscess | | | | | | | | | | | 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

Page 90

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | DAY ON TEST | 0
7
3
1 | 0
7
3
0 | 0
4
5
6 | 0
7
3
0 | 0
7
3
1 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | | | |
|-----------------------------------|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|--|
| <hr/> | | | | | | | | | | | | | | |
| | | ANIMAL ID | 0
0
2
3
1 | 0
0
2
3
2 | 0
0
2
3
3 | 0
0
2
3
4 | 0
0
2
3
5 | 0
0
2
3
6 | 0
0
2
3
7 | 0
0
2
3
8 | 0
0
2
3
9 | 0
0
2
4
0 | * TOTALS | |
| | | | | | | | | | | | | | | |
| Dilatation | | | 4 | | 3 | 3 | | 2 | 2 | 4 | 1 | 3 | 46 2.5 | |
| Hyperplasia | | | | | | | | | | | | | 1 2.0 | |
| Inflammation, Chronic | | | | | | | | | | | | | 5 1.6 | |
| Inflammation, Chronic Active | | | | | | | | 3 | | | | 2 | 14 1.8 | |
| <hr/> | | | | | | | | | | | | | | |
| Prostate | | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | | | | | | | | | | | 1 2.0 | |
| Inflammation, Acute | | | | | | | | | | | | | 1 1.0 | |
| Inflammation, Chronic | | | 1 | | | | | | | 1 | | 1 | 11 1.0 | |
| <hr/> | | | | | | | | | | | | | | |
| Seminal Vesicle | | | + | + | + | + | + | + | + | + | + | + | 59 | |
| Dilatation | | | | | | | | | | | | | 1 2.0 | |
| <hr/> | | | | | | | | | | | | | | |
| Testes | | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Seminiferous Tubule, Degeneration | | | | | | | | | | | | | 1 1.0 | |
| <hr/> | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | |
| <hr/> | | | | | | | | | | | | | | |
| Bone Marrow | | | + | + | + | + | + | + | + | + | + | + | 60 | |
| Congestion | | | | | | | | | | | | | 1 3.0 | |
| <hr/> | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | 2 | |
| Hemorrhage | | | | | | | | | | | | | 1 1.0 | |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | | | 1 4.0 | |
| <hr/> | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | + | + | + | M | + | + | + | + | + | + | 55 | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | 2 2.0 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | |
|-----------------------------------|--|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | | + | + | + | + | + | + | + | + | + | 60 |
| Congestion | | | | | | | | | | | 1 3.0 |
| <hr/> | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | 1 1.0 |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | 1 4.0 |
| <hr/> | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | M | + | + | + | + | + | 55 |
| Pigmentation, Hemosiderin | | | | | | | | | | | 2 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

Page 91

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | | |
|---------------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|--------|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0
7
3
1 | 0
7
3
0 | 0
4
5
6 | 0
7
3
0 | 0
7
3
1 | 0
4
5
6 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | 0
7
3
0 | | |
| | ANIMAL ID | 0
0
2
3
1 | 0
0
2
3
2 | 0
0
2
3
3 | 0
0
2
3
4 | 0
0
2
3
5 | 0
0
2
3
6 | 0
0
2
3
7 | 0
0
2
3
8 | 0
0
2
3
9 | 0
0
2
4
0 | | |
| | * TOTALS | | | | | | | | | | | | |
| | Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | | 58 |
| | Angiectasis | | | | | | | | | | | | 1 3.0 |
| | Hematopoietic Cell Proliferation | | | | | | | | | | | | 1 2.0 |
| | Hemorrhage | | | | | | | 1 | | | | | 10 1.6 |
| | Spleen | + | + | + | + | + | + | + | + | + | + | | 60 |
| | Hematopoietic Cell Proliferation | | | | | | | 1 | | | | | 10 1.5 |
| | Thymus | + | + | + | + | + | + | + | + | + | + | | 54 |
| Atrophy | | | | | | | | | | | 3 2.3 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | |
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | | 2 | |
| Skin | + | + | + | + | + | + | + | + | + | + | | 60 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 1.0 | |
| Epidermis, Hyperplasia | | | | | | | | | | | | 5 1.2 | |
| Prepuce, Inflammation, Chronic Active | | | | | | | | | | | | 1 3.0 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | | 60 | |
| NERVOUS 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 92

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | |
| | | 3 | 3 | 5 | 3 | 3 | 5 | 2 | 3 | 3 | |
| | | 1 | 0 | 6 | 0 | 1 | 6 | 9 | 1 | 0 | |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | | |
| | ANIMAL ID | 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 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | |
| Brain | | + | + | + | + | + | + | + | + | + | 60 |
| Mineralization | | | | | | | 1 | | 1 | | 19 1.0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|----|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | 60 | |
| Congestion | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Lymphocyte | | | 1 | | | | | | | | | 10 1.1 |
| Alveolar Epithelium, Hyperplasia | | | | | | | 4 | | | | | 2 4.0 |
| Interstitial, Inflammation, Chronic Active | | | | | | | 1 | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | 60 | |
| Exudate | | | | | | | | | | | | 1 2.0 |
| Foreign Body | | | | | | | | | | | | 1 2.0 |
| Olfactory Epithelium, Degeneration, Hyaline | | 2 | 2 | | 1 | 1 | 1 | | 2 | | | 29 1.6 |
| Respiratory Epithelium, Degeneration, Hyaline | | | 1 | | | | | | | | | 1 1.0 |
| Respiratory Epithelium, Hyperplasia, Glandular | | 2 | | | | | | | | | | 1 2.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 60 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|---|
| Eye | | | | | | | | | | | 1 |
| Harderian Gland | | | | | | | | | | | 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

Page 93

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE
3000 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 |
| | | 3 | 3 | 5 | 3 | 3 | 5 | 2 | 3 | 3 |
| | | 1 | 0 | 6 | 0 | 1 | 6 | 9 | 1 | 0 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 60 | |
| Hydronephrosis | | 2 | | | | | | | | | | 1 2.0 |
| Infarct | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic | | 1 | | | | 1 | | | | 1 | | 14 1.1 |
| Nephropathy | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | | 38 1.1 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 59 | |
| Dilatation | | 2 | | | | | | | | | | 3 2.3 |
| Infiltration Cellular, Lymphocyte | | | | | | 1 | | | | | | 6 1.2 |
| Inflammation, Acute | | | | | | | | | | | | 1 4.0 |

*** END OF MALE DATA ***

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|---------------------------------|--|-------------------|--|
| DAY ON TEST | | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 0 | 7 | 5 | 4 | 7 | 7 | 4 | | |
| | | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 9 | 3 | 5 | 3 | 3 | 5 | 3 | 2 | 0 | 3 | 9 | 5 | 3 | 3 | 5 | | |
| | | 6 | 4 | 3 | 5 | 4 | 4 | 7 | 4 | 5 | 0 | 9 | 6 | 6 | 7 | 5 | 2 | 9 | 5 | 1 | 7 | 6 | 6 | 7 | | |
| | | | |
| B6C3F1 MICE FEMALE

0 PPM | | 0 | 0 | | |
| | | 0 | 0 | | |
| | | 2 | 2 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | |
| | | 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 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Gallbladder
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + |
| Liver | + |
| Angiectasis |
| Basophilic Focus |
| Eosinophilic Focus | | | | | 3 | X | X | | | | | | | | | X | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | 3 | | | | | | | | | | | 2 | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | 1 | | | | | 2 | 4 | | | | 2 | | | | | 1 | | 2 | | 1 |
| Necrosis |
| Centrilobular, Necrosis |

* .. 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

Page 95

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | DAY ON TEST | 0 |
|--|--|-------------|
|--|--|-------------|

CARDIOVASCULAR SYSTEM

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

* .. 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 96

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|-----------------------------|-------------|----------------------|---|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0 | females
(cont...) | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 0 | 7 | 5 | 4 | 7 | 7 | 4 | | |
| | | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 9 | 3 | 5 | 3 | 3 | 5 | 3 | 2 | 0 | 3 | 9 | 5 | 3 | 3 | 5 | | 3 |
| | | 6 | 4 | 3 | 5 | 4 | 4 | 7 | 4 | 5 | 0 | 9 | 6 | 6 | 7 | 5 | 2 | 9 | 5 | 1 | 7 | 6 | 6 | 7 | | 4 |
| | | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 0 | females
(cont...) | |
| | | 0 | | 0 |
| | | 2 | | 2 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | 6 |
| | | 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...)

NONE

GENITAL SYSTEM

| |
|------------------------------|
| Clitoral Gland | + | M | M | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dilatation | 2 | | | | | 1 | 3 | 2 | | 2 | 3 | 3 | 3 | | 3 | 2 | | | 3 | | 2 | 2 | 2 | 2 | 3 |
| Inflammation, Chronic Active | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | | |
| Pigmentation | | | | 1 | |
| Ovary | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |
| Abscess | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | + | | + | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Uterus | + |
| Dilatation | | 4 | 4 | | 4 | 4 | 3 | | 3 | | | | | | | | | | | 4 | | | | | |
| Hyperplasia, Cystic | 3 | | | | 2 | | 1 | 2 | | | 1 | 1 | 2 | 2 | 4 | 2 | | 3 | | 2 | 3 | 2 | 2 | 3 | 3 |

HEMATOPOIETIC SYSTEM

| |
|---------------------------|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia | | | | 3 | | | | | | | 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 98

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| DAY ON TEST | | 0 | 0 | | | |
|---------------------------------------|--|-------------------|--|--|--|
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 0 | 7 | 5 | 4 | 7 | 7 | 4 | 7 | 4 | | | |
| | | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 9 | 3 | 5 | 3 | 3 | 5 | 3 | 2 | 0 | 3 | 9 | 5 | 3 | 3 | 5 | 3 | 5 | | | |
| | | 6 | 4 | 3 | 5 | 4 | 4 | 7 | 4 | 5 | 0 | 9 | 6 | 6 | 7 | 5 | 2 | 9 | 5 | 1 | 7 | 6 | 6 | 7 | 4 | 7 | | | |
| B6C3F1 MICE FEMALE
0 PPM | | females (cont...) | | | |
| | | 0 | 0 | | | | |
| | | 0 | 0 | | | | |
| | | 2 | 2 | | | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | | 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 | | | |
| Lymph Node | | + | | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| Iliac, Inflammation, Chronic Active | | | | | |
| Lymph Node, Mandibular | | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | | | | |
| Hemorrhage | | 1 | | | | | 2 | | | |
| Lymph Node, Mesenteric | | I | + | | | | |
| Hematopoietic Cell Proliferation | | 2 | | | |
| Hemorrhage | | 2 | | | | | 2 | | | | | 1 | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | |
| Spleen | | + | + | | | | |
| Hematopoietic Cell Proliferation | | 4 | | | | 4 | | | | | | | | 4 | | | | 4 | | | | 1 | | | | 3 | | | |
| Hyperplasia, Lymphoid | | 2 | | | |
| Pigmentation, Hemosiderin | | | | | | | 1 | | | |
| Capsule, Inflammation, Chronic Active | | | | | | | 4 | | | |
| Thymus | | + | M | + | M | + | + | + | M | M | M | I | + | M | + | + | M | M | + | + | + | + | + | + | + | | | | |
| Atrophy | | 3 | | | |
| Hyperplasia, Lymphoid | | | | | |

INTEGUMENTARY SYSTEM

| | | |
|---|--|--|
| Mammary Gland
Inflammation, Chronic Active | | |
| | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | |
| | | 2 | |
| Skin
Developmental Malformation | | |
| | | + | |
| | | |

* .. 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 99

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|-----------------------------|-------------|----------------------|----------------------|---|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0 | females
(cont...) | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 0 | 7 | 5 | 4 | 7 | 7 | 4 | | 7 | 4 |
| | | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 9 | 3 | 5 | 3 | 3 | 5 | 3 | 2 | 0 | 3 | 9 | 5 | 3 | 3 | 5 | | 3 | 5 |
| | | 6 | 4 | 3 | 5 | 4 | 4 | 7 | 4 | 5 | 0 | 9 | 6 | 6 | 7 | 5 | 2 | 9 | 5 | 1 | 7 | 6 | 6 | 7 | | 4 | 7 |
| | | | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 0 | females
(cont...) | |
| | | 0 | | 0 |
| | | 2 | | 2 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |
| | | 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...)

Inflammation, Chronic Active
Ulcer
Epidermis, Hyperplasia
Fat, Subcutaneous Tissue, Atrophy
Subcutaneous Tissue, Abscess
Subcutaneous Tissue, Inflammation,
Chronic Active
Subcutaneous Tissue, Pigmentation

2 2

4

1

MUSCULOSKELETAL SYSTEM

Bone
Dysplasia

+
2 2 2 2 1

Skeletal Muscle

+

NERVOUS SYSTEM

Brain
Compression
Hemorrhage
Mineralization
Meninges, Inflammation, Chronic

+
2
1 1 1
1 2 2
1

RESPIRATORY SYSTEM

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
Page 100

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

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | females (cont...) | |
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* .. 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 101

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-----------------------------|-------------|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0 | | |
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | 9 | |
| | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | 6 | 7 |
| | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 0 | |
| | | 0 | |
| | | 2 | |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 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 |
| females (cont...) | |

ALIMENTARY SYSTEM

| |
|----------------------------------|
| Esophagus | + | M | + | + |
| Gallbladder | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A |
| Inflammation, Chronic Active |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A |
| Intestine Small, Ileum | + | A |
| Intestine Small, Jejunum | + |
| Liver | + |
| Angiectasis |
| Basophilic Focus | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus |
| Hematopoietic Cell Proliferation | | 2 |
| Inflammation, Chronic Active | | | | | | | 1 | | | | | | | | | 1 | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Centrilobular, Necrosis |

* .. 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 103

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|-----------------------------|---|-----------------------|---|--|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0
5
4
4 | 0
7
3
5 | 0
7
3
6 | 0
7
3
4 | 0
7
3
4 | 0
7
3
5 | 0
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| | ANIMAL ID | 0
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| | | | | |
| | Mesentery
Inflammation, Chronic Active
Fat, Necrosis | | | + | | | | + | | | | | | + | | | | | | + | | | | + | | | | |
| | | | | 2 | | | | 3 | | | | | | 4 | | | | | | 4 | | | | | | | | |
| | Pancreas
Inflammation, Chronic
Inflammation, Chronic Active
Acinar Cell, Atrophy
Acinar Cell, Depletion Secretory
Duct, Cyst | + | 2 | |
| | Salivary Glands
Inflammation, Chronic | + | | + | + | + | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 1 | | 1 | 1 | 1 | 1 | | 1 | 3 | | 1 | | 2 | | 2 | |
| | Stomach, Forestomach
Hyperplasia
Inflammation, Chronic Active | + | 1 | |
| | Stomach, Glandular
Dilatation
Dysplasia
Inflammation, Chronic Active
Necrosis | + | + | + | + | + | | + | |
| | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 3 | | |
| | | | | | | 2 | | |

CARDIOVASCULAR SYSTEM

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

* .. 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 104

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| DAY ON TEST | | 0 | 0 | |
|-----------------------------|--|-------------------|
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | 9 | |
| | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | 6 | 7 |
| B6C3F1 MICE FEMALE
0 PPM | | |
| | | ANIMAL ID |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 2 | 2 | |
| 0 PPM | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 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 |
| | | females (cont...) | |

Heart
Inflammation, Chronic Active

ENDOCRINE SYSTEM

Adrenal Cortex
Cytoplasmic Alteration, Focal
Subcapsular, Hyperplasia

Adrenal Medulla

Islets, Pancreatic

Parathyroid Gland

Pituitary Gland
Pars Distalis, Angiectasis
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia

Thyroid Gland
Inflammation, Chronic Active
Follicle, Cyst
Follicular Cell, Hyperplasia, Focal

GENERAL BODY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 105

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------|-------------|----------------------|
| | DAY ON TEST | 0 | | |
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | | 4 |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | | 9 |
| | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | | 6 |
| | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | females
(cont...) |
| | | 0 | |
| | | 2 | |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 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 | |

NONE

GENITAL SYSTEM

| |
|------------------------------|
| Clitoral Gland | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M |
| Dilatation | 2 | 3 | 3 | 2 | | 3 | 3 | 2 | 3 | 1 | 2 | 3 | 2 | 3 | | 2 | 2 | 2 | 3 | 2 | | | 1 | |
| Inflammation, Chronic Active | 1 | |
| Pigmentation | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Ovary | + |
| Abscess |
| Cyst | | | | | | 4 | | | | | | 4 | | | | | | | | | | | 2 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 3 | | | | | | |
| Oviduct |
| Cyst | | | | | | | | | | | | | | | | | | + | | | | | | |
| Inflammation, Chronic Active | |
| Uterus | + |
| Dilatation | | 4 | | | | 4 | | | | | | | | | | | | | 4 | | | | | |
| Hyperplasia, Cystic | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | | 2 | 2 | | 2 |

HEMATOPOIETIC SYSTEM

| |
|---------------------------|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 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

Page 106

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | DAY ON TEST | | females
(cont...) |
|-----------------------------|--|-------------|--|----------------------|
| | | 0 | 0 | | |
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | | |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | 9 | | |
| B6C3F1 MICE FEMALE
0 PPM | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | 6 | 7 | | |
| | | | | |
| | | 0 | 0 | | |
| | | 0 | 0 | | |
| ANIMAL ID | | 2 | 2 | | |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |

Inflammation, Chronic Active
Ulcer
Epidermis, Hyperplasia
Fat, Subcutaneous Tissue, Atrophy
Subcutaneous Tissue, Abscess
Subcutaneous Tissue, Inflammation, Chronic Active
Subcutaneous Tissue, Pigmentation

3
2

MUSCULOSKELETAL SYSTEM

| |
|-----------------|
| Bone | + |
| Dysplasia | | | | 2 | | | | | | | | | | 1 | | 1 | | 2 | | | | | | | |
| Skeletal Muscle | |

NERVOUS SYSTEM

| |
|---------------------------------|
| Brain | + |
| Compression | 3 | | 4 | | | |
| Hemorrhage |
| Mineralization | 1 | | 3 | 2 | 1 | | | 2 | | 1 | 1 | 1 | 2 | 2 | 1 | | | 1 | 2 | | | | 1 | 1 | 1 |
| Meninges, Inflammation, Chronic | |

RESPIRATORY SYSTEM

| |
|------|
| Lung | + |
|------|

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 108

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| DAY ON TEST | | 0 |
|--|--|-------------------|
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | 4 | 4 | 4 |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | 9 | 9 | 9 | 9 |
| | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | 6 | 7 | 7 | 7 |
| B6C3F1 MICE FEMALE | | 0 |
| ANIMAL ID | | 0 |
| 0 PPM | | 2 |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 9 | 0 | females (cont...) |
| Infiltration Cellular, Histiocyte | | |
| Infiltration Cellular, Lymphocyte | | |
| Pigmentation, Hemosiderin | | |
| Alveolar Epithelium, Hyperplasia | | |
| | | |
| Nose | | |
| Olfactory Epithelium, Degeneration, Hyaline | | |
| Respiratory Epithelium, Degeneration, Hyaline | | |
| Respiratory Epithelium, Hyperplasia, Glandular | | |
| Respiratory Epithelium, Inflammation, Chronic Active | | |
| Trachea | | |
| | | |
| SPECIAL SENSES SYSTEM | | |
| | | |
| Harderian Gland | | |
| Hyperplasia, Focal | | |
| | | |
| URINARY SYSTEM | | |
| | | |
| Kidney | | |
| Amyloid Deposition | | |
| Glomerulosclerosis | | |
| 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 109

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
 Time Report Reqsted: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| DAY ON TEST | | 0 |
|-------------------------------------|--|----------------------|
| | | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | | |
| | | 4 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 6 | 3 | 5 | 3 | 3 | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 7 | 3 | 9 | | |
| | | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 7 | 5 | 5 | 5 | 7 | 1 | 5 | 6 | 5 | 5 | 2 | 4 | 1 | 2 | 5 | 0 | 6 | 7 | |
| B6C3F1 MICE FEMALE | | 0 | |
| ANIMAL ID | | 0 | |
| 0 PPM | | 2 | |
| | | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | females
(cont...) |
| | | 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, Chronic | | | | | | | | | 1 | 1 | | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| Metaplasia, Osseous | | |
| Renal Tubule, Degeneration, Hyaline | | |
| Renal Tubule, Regeneration | | | 1 | 1 | 2 | 1 | 1 | | | 1 | | 1 | | 1 | | | | | | | 1 | | | | | | |
| Urinary Bladder | | + | |
| Dilatation | | | | | | | 4 | |
| Infiltration Cellular, Lymphocyte | | | 1 | 2 | 1 | 1 | | | 2 | 1 | | | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | 1 | 1 | 1 | |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 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 | 3 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 58 | |
| Gallbladder | + | + | + | + | + | + | + | + | M | + | 53 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | |
| Angiectasis | | | | | | | | | | | | 1 2.0 |
| Basophilic Focus | | | | | | | | | | | | 1 |
| Eosinophilic Focus | | | | 1 | | | | | | | | 6 2.0 |
| Hematopoietic Cell Proliferation | 1 | | | | | | | | | | | 3 2.0 |
| Inflammation, Chronic Active | | | | | | 1 | | 1 | | | | 11 1.5 |
| Necrosis | | | | | | | | | | | | 2 1.5 |
| Centrilobular, Necrosis | | | | | | | | | | | | 1 2.0 |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 111

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | 6 | |
| | | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| 0 PPM | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | 60 |
|--------------|---|---|---|---|---|---|---|---|---|----|

* .. 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. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE
0 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 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 | 3 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Heart | + | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic Active | | | 1 | | | | | | | | | 2 1.5 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 60 | |
| Cytoplasmic Alteration, Focal | | | | | | | | | | | | 1 2.0 |
| Subcapsular, Hyperplasia | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | | 57 1.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 59 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | M | 44 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 58 | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | 2 2.5 |
| Pars Distalis, Hyperplasia | | | | | | 2 | | | 2 | 2 | | 12 1.7 |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | 1 1.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 58 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 1.5 |
| Follicle, Cyst | | | | | | | | | 3 | | | 3 1.7 |
| Follicular Cell, Hyperplasia, Focal | | | | | | 1 | | | 1 | | | 14 1.4 |

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

Page 113

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | 7 |
| | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | 3 |
| | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
0 PPM
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | * TOTALS |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Clitoral Gland | + | + | + | M | + | + | + | + | + | M | 51 | | |
| Dilatation | 2 | 2 | 2 | | 2 | 1 | 3 | 3 | | | | 42 | 2.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | 3 | 1.0 |
| Pigmentation | | | | | | | | 2 | | | | 3 | 1.3 |
| | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | 58 | | |
| Abscess | | | | | | | | | | | | 1 | 4.0 |
| Cyst | 4 | 2 | | | | | | | | | | 6 | 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | 3.5 |
| | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | 3 | | |
| Cyst | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Dilatation | | | | | | | | 4 | 4 | | | 12 | 3.8 |
| Hyperplasia, Cystic | 2 | 2 | | 3 | 3 | 2 | 3 | | | 2 | | 46 | 2.2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 4 | 2.8 |

* .. 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. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
|---------------------------------------|-----------|---|---|---|---|---|---|---|---|---|----|----------|-----|-----|
| DAY ON TEST | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | | | |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | 6 | | | |
| | | | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | | |
| | | | | | | | | | | | | * TOTALS | | |
| Lymph Node | | | | | | | | | | | | 4 | | |
| Iliac, Inflammation, Chronic Active | | | | | | | | | | | | 1 | 2.0 | |
| | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | M | 54 | | |
| Hemorrhage | | | | | | | | | | | | 2 | 1.5 | |
| | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 1 | 2.0 | |
| Hemorrhage | | | | | | | | | | | | 4 | 1.5 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 | 4.0 | |
| | | | | | | | | | | | | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Hematopoietic Cell Proliferation | | | | | | | | 2 | 1 | | 17 | 2.6 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 | 2.0 | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | 1 | 1.0 | |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | 1 | 4.0 | |
| | | | | | | | | | | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | M | + | 48 | | |
| Atrophy | | 4 | | | | | | | | | | | 5 | 2.8 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 | 1.5 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|-------|
| <hr/> | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | 55 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| <hr/> | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | 60 |
| Developmental Malformation | | | | | | | | | | | | 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 115

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|---|--|---|---|---|---|---|---|---|---|---|----------|-----|-----|
| DAY ON TEST | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | | |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | 6 | | |
| | | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 PPM | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| | | | | | | | | | | | * TOTALS | | |
| Inflammation, Chronic Active | | 1 | | | | | | | | | 5 | 1.8 | |
| Ulcer | | | | | | | | | | | 1 | 2.0 | |
| Epidermis, Hyperplasia | | | | | | | | | | | 3 | 1 | 3.0 |
| Fat, Subcutaneous Tissue, Atrophy | | 3 | | | | | | | | | 1 | 3.0 | |
| Subcutaneous Tissue, Abscess | | | | | | | | | | | 1 | 4.0 | |
| Subcutaneous Tissue, Inflammation, Chronic Active | | | | | | | | | | | 3 | 1 | 3.0 |
| Subcutaneous Tissue, Pigmentation | | | | | | | | | | | 2 | 1 | 2.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|--------|
| | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | 60 |
| Dysplasia | | | | 1 | | 1 | | | 3 | | 12 1.7 |
| | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | 60 |
| Compression | | | | | | | | | | | 3 3.0 |
| Hemorrhage | | | | | | | | | | | 1 1.0 |
| Mineralization | 1 | 2 | | | 2 | | | 1 | | | 27 1.4 |
| Meninges, Inflammation, Chronic | | | | | | | | | | | 1 1.0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | 60 |

* .. 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 116

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|----------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | | |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | | |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | | |
| B6C3F1 MICE FEMALE
0 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | * TOTALS |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | 1 1.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 38 1.1 |
| Pigmentation, Hemosiderin | | | | | | | | | | | | 1 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | 1 1.0 |
| | | | | | | | | | | | | |
| Nose | | | | | | | | | | | | 60 |
| + + + + + + + + + + | | | | | | | | | | | | |
| Olfactory Epithelium, Degeneration, Hyaline | | | | | | | | | | | | 36 1.6 |
| 1 2 3 2 1 2 1 2 | | | | | | | | | | | | |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | | | | 7 1.1 |
| 1 | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia, Glandular | | | | | | | | | | | | 2 2.0 |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | | 1 1.0 |
| | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | | 60 |
| + + + + + + + + + + | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | | 2 |
| Hyperplasia, Focal | | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | 60 |
| + + + + + + + + + + | | | | | | | | | | | | |
| Amyloid Deposition | | | | | | | | | | | | 1 4.0 |
| 4 | | | | | | | | | | | | |
| Glomerulosclerosis | | | | | | | | | | | | 1 2.0 |
| Infarct | | | | | | | | | | | | 1 1.0 |

* .. 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

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TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
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 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | DAY ON TEST | | | | | | | | | | |
|-------------------------------------|--|-------------|---|---|---|---|---|---|---|---|----------|--------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 4 | 2 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 5 | 7 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | |
| | | 4 | 7 | 2 | 6 | 7 | 5 | 5 | 5 | 5 | 6 | |
| <hr/> | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
0 PPM | | ANIMAL ID | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | * TOTALS | |
| Inflammation, Chronic | | 1 | | | | | 1 | | | | | 14 1.1 |
| Metaplasia, Osseous | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Degeneration, Hyaline | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Regeneration | | 1 | | | | | 1 | | | | | 21 1.0 |
| <hr/> | | | | | | | | | | | | |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | 60 | |
| Dilatation | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 38 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

Page 118

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
750 PPM | DAY ON TEST | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | 4 | 3 |
| | | |
| B6C3F1 MICE FEMALE
750 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 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...) | |

ALIMENTARY SYSTEM

| |
|----------------------------------|
| Esophagus | + | |
| Gallbladder | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum | M | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Lymphoid | | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Liver | + |
| Cyst |
| Eosinophilic Focus | | | | | | | | | | | | | X | | | | 4 | | 1 | 2 | | | | | |
| Hematopoietic Cell Proliferation | |
| Inflammation, Chronic Active |
| Mitotic Alteration |
| Necrosis |
| Hepatocyte, Necrosis |

* .. 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. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|-------------------------------|--|-----------|----------------------|
| DAY ON TEST | | 0 | 0 | | | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | | | |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | 4 | 3 | | |
| | | | |
| B6C3F1 MICE FEMALE
750 PPM | | ANIMAL ID | 0 | | | |
| | | | 0 | | |
| | | | 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...) |

| |
|------------------------------|
| Mesentery | + | | | | | | | | | | | | | | | | | | + | | | | + |
| Fat, Necrosis | 1 | | | | | | | | | | | | | | | | | | 4 | | | | 2 |
| Pancreas | + |
| Inflammation, Chronic | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Acinar Cell, Atrophy |
| Duct, Cyst |
| Salivary Glands | + |
| Inflammation, Chronic | 1 | 1 | 2 | 1 | 2 | 1 | 1 | | 1 | | | 1 | 1 | 1 | 2 | 1 | | 1 | 1 | 1 | 1 | 2 | |
| Stomach, Forestomach | + |
| Hyperplasia |
| Stomach, Glandular | + |
| Inflammation, Chronic Active | 1 | | | | | | | 1 | | 1 | | | | | 1 | | | 1 | | 1 | | | |
| Necrosis |

CARDIOVASCULAR SYSTEM

| |
|--------------------------------------|
| Blood Vessel | + |
| Heart | + |
| Fibrosis |
| Mineralization | 1 |
| Thrombosis |
| Artery, Inflammation, Chronic Active | |

* .. 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 120

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
750 PPM | DAY ON TEST | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3 |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | 4 |
| | | |
| ANIMAL ID | 0 | 0 | 0 | |
| | 0 | 0 | 0 |
| | 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...) | |

ENDOCRINE SYSTEM

| |
|-------------------------------------|
| Adrenal Cortex | + |
| Angiectasis |
| Hematopoietic Cell Proliferation | | | 3 | |
| Subcapsular, Hyperplasia | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 |
| Adrenal Medulla | + |
| Hyperplasia |
| Islets, Pancreatic | + |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | M | + | + | + | M |
| Pituitary Gland | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Pars Distalis, Cyst | | | 1 | |
| Pars Distalis, Hyperplasia | 2 | 1 | 3 | 2 | 2 | | | | | | | | | | | | | | | | 3 | | 4 | 2 |
| Thyroid Gland | + |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | | | | | | | | 1 | | 1 | | | |
| Follicle, Cyst |
| Follicular Cell, Hyperplasia, Focal | 2 | 1 | 2 | 1 | 2 | | | 3 | 1 | 1 | 1 | 1 | 2 | 2 | | 2 | | 1 | 2 | | 4 | | 1 | 2 |

GENERAL BODY SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | |
|-------------------------------|--|-------------|----------------------|---|---|
| B6C3F1 MICE FEMALE
750 PPM | | DAY ON TEST | 0 | females
(cont...) | | |
| | | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | | 7 | 6 |
| | | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | | 3 | 3 |
| | | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | | 9 | 4 |
| | | | | | |
| B6C3F1 MICE FEMALE
750 PPM | | ANIMAL ID | 0 | females
(cont...) | | |
| | | | 0 | | 0 | 0 |
| | | | 3 | | 3 | 3 |
| | | | 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 |

Tissue NOS

GENITAL SYSTEM

| |
|------------------------------|
| Clitoral Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + |
| Dilatation | 4 | 2 | 1 | 2 | 2 | 1 | | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | | 3 | 3 | | 2 | | 2 |
| Inflammation, Chronic Active | | | | | | | | 1 | | | | | | | | | | | | | | | | 3 | |
| Pigmentation | 2 | | | | | |
| Ovary | + |
| Cyst | | | 4 | | 2 | 3 | | | | | | 1 | | | | | | | 4 | | 4 | | 2 | 2 | |
| Oviduct |
| Dilatation |
| Inflammation, Chronic Active | |
| Uterus | + |
| Dilatation | | | 4 | | 2 | | 3 | | | | | | | 4 | 3 | | | | 4 | | | 4 | | 4 | |
| Hemorrhage | | 2 | |
| Hyperplasia, Cystic | 2 | 2 | | 3 | 2 | 3 | 2 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | | 3 | 4 | 2 | 1 | 2 | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Lymphatic, Ectasia | 4 | | | | | |

HEMATOPOIETIC SYSTEM

| |
|-------|
| Blood | |
| |

* .. 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 122

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE FEMALE
750 PPM | | DAY ON TEST | | females
(cont...) |
|-------------------------------|--|-------------|----------------------|
| | | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | 4 | 3 | |
| | | | |
| B6C3F1 MICE FEMALE
750 PPM | | ANIMAL ID | females
(cont...) |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 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 | |

Mammary Gland
Infiltration Cellular, Lymphocyte

+ +

Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia

+ + + + + + + + + + + + 2 + + + + + + + + + + + + +

MUSCULOSKELETAL SYSTEM

Bone
Dysplasia

+
2 1

NERVOUS SYSTEM

Brain
Compression
Degeneration
Mineralization

+
1 1 1 1 1 1 1 1

RESPIRATORY SYSTEM

Lung
Congestion
Hemorrhage
Infiltration Cellular, Lymphocyte
Alveolar Epithelium, Hyperplasia

+
2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|-----------------------------------|--|----------------------|----------------------|---|
| DAY ON TEST | | 0 | females
(cont...) | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | | 6 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | | 3 | |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | | 4 | 3 |
| B6C3F1 MICE FEMALE

750 PPM | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| ANIMAL ID | | 0 | females
(cont...) | |
| | | 0 | | 0 |
| | | 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 | |

| | |
|--|---|
| Nose | + |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 2 | 1 | 1 | | | 2 | 2 | 2 | 2 | 2 | | | 2 | | 2 | 2 | | 1 | | | | 2 | 2 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Inflammation, Chronic Active | |
| Trachea | + |

SPECIAL SENSES SYSTEM

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

URINARY SYSTEM

| |
|-----------------------------------|
| Kidney | + |
| Cyst |
| Inflammation, Chronic | 1 | | 1 | 1 | | | 1 | 1 | | | | | | 1 | | 1 | | 1 | 1 | | | | | | |
| Nephropathy |
| Renal Tubule, Regeneration | 1 | | | | | | | 2 | 1 | 1 | | | | 2 | | 1 | 2 | 1 | 1 | 1 | 2 | 1 | | 2 | |
| Urinary Bladder | + |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 125

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-------------------------------|--|----------------------|
| DAY ON TEST | | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | | |
| | | 4 | 4 | 5 | 1 | 5 | 5 | 7 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 7 | 4 | 4 | 5 | 5 | 6 | 5 | 4 | 9 | 4 | 3 | |
| B6C3F1 MICE FEMALE
750 PPM | | |
| | | 0 | | |
| | | 0 | | |
| | | 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...) |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | |
|-------------------------------|--|-------------|----------------------|-----------------------|--|
| B6C3F1 MICE FEMALE
750 PPM | | DAY ON TEST | 0
7
3
5 | 0
6
4
7 | 0
6
7
5 | 0
7
3
7 | 0
4
5
4 | 0
7
3
9 | 0
5
3
7 | 0
4
5
9 | 0
3
3
4 | 0
7
3
4 | 0
4
5
7 | 0
6
1
6 | 0
7
3
4 | 0
4
5
7 | 0
6
8
4 | 0
3
7
6 | 0
5
1
2 | 0
7
0
8 | 0
0
3
4 | 0
7
0
8 | 0
0
3
4 | 0
7
3
4 | 0
0
4
8 | females
(cont...) | | |
| | | | | | |
| | | ANIMAL ID | 0
0
3
2
6 | 0
0
3
2
7 | 0
0
3
2
8 | 0
0
3
2
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
0
3
3
7 | 0
0
3
3
8 | 0
0
3
4
9 | 0
0
3
4
0 | 0
0
3
4
1 | 0
0
3
4
2 | 0
0
3
4
3 | 0
0
3
4
4 | 0
0
3
4
5 | 0
0
3
4
6 | 0
0
3
4
7 | 0
0
3
4
8 | | 0
0
3
4
9 | |
| | | | | | |

ALIMENTARY SYSTEM

| | |
|---|---|
| Esophagus | + | M | + | + | + | + |
| Gallbladder | + | M | A | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | A |
| Intestine Large, Cecum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | A | + | + | + | + |
| Liver | + |
| Cyst | |
| Eosinophilic Focus | | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | 1 | | | 1 | | 1 | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | 1 | | | 1 | | | | | | 1 | | | 1 | | |
| Mitotic Alteration | 2 | | |
| Necrosis | | | 3 | |
| Hepatocyte, Necrosis | 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
750 PPM | DAY ON TEST | 0 | 0 | | |
| | | 7 | 6 | 6 | 7 | 4 | 7 | 5 | 4 | 3 | 7 | 7 | 7 | 4 | 6 | 7 | 4 | 6 | 3 | 7 | 5 | 0 | 7 | 0 | 7 | 3 |
| | | 3 | 4 | 7 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 6 | 8 | 3 | 1 | 0 | 3 | 0 | 3 | 4 |
| | | 5 | 7 | 7 | 5 | 7 | 4 | 9 | 7 | 9 | 4 | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 8 | 6 | 2 | 8 | 4 | 8 | 4 | 8 |
| | | |
| B6C3F1 MICE FEMALE
750 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 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 |
| | | females (cont...) | |

females
(cont...)

ENDOCRINE SYSTEM

| |
|-------------------------------------|
| Adrenal Cortex | + |
| Angiectasis | | | | 3 | |
| Hematopoietic Cell Proliferation | | 1 | |
| Subcapsular, Hyperplasia | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | | 1 | | 2 | | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Islets, Pancreatic | + |
| Parathyroid Gland | + | + | + | + | + | M | M | + | M | M | M | + | + | + | M | + | + | + | + | + | M | + | + | + | + |
| Pituitary Gland | + | M | + | + | + | + |
| Pars Distalis, Angiectasis |
| Pars Distalis, Cyst |
| Pars Distalis, Hyperplasia | 1 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Thyroid Gland | + |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| Follicle, Cyst |
| Follicular Cell, Hyperplasia, Focal | | 1 | 1 | 1 | | | | | | 1 | 2 | 1 | | | | | | | 1 | | | | | 1 | |

GENERAL BODY SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------|-------------|----------------------|---|
| | DAY ON TEST | 0 | | | |
| | | 7 | 6 | 6 | 7 | 4 | 7 | 5 | 4 | 3 | 7 | 7 | 7 | 4 | 6 | 7 | 4 | 6 | 3 | 7 | 5 | 0 | 7 | 0 | | 7 | 3 |
| | | 3 | 4 | 7 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 6 | 8 | 3 | 1 | 0 | 3 | 0 | | 3 | 4 |
| | | 5 | 7 | 7 | 5 | 7 | 4 | 9 | 7 | 9 | 4 | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 8 | 6 | 2 | 8 | 4 | 8 | | 4 | 8 |
| | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | females
(cont...) | |
| | | 0 | | |
| | | 3 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | 0 |

Tissue NOS +

GENITAL SYSTEM

| |
|------------------------------|
| Clitoral Gland | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | M | + | + | + | M | + | M | + | + |
| Dilatation | 2 | | 3 | 2 | | 2 | | 2 | | 3 | | 2 | 3 | 2 | 1 | 3 | | 2 | 3 | 2 | | 2 | | 3 | |
| Inflammation, Chronic Active | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Pigmentation |
| Ovary | + |
| Cyst | | | 2 | | | | | | | | | | | | | | 3 | | | 2 | | | | | |
| Oviduct |
| Dilatation | | | | | | | | | | | | | | | | | | + | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| | | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Uterus | + |
| Dilatation | | | | | | | | 4 | | 4 | 3 | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Cystic | 3 | 1 | 3 | 1 | 1 | 2 | 1 | 2 | | | 2 | 1 | | 4 | 2 | 1 | | | 4 | 1 | | 1 | | 1 | |
| Inflammation, Chronic Active | |
| Lymphatic, Ectasia |

HEMATOPOIETIC SYSTEM

| |
|-------|
| Blood | |
| |

* .. 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 130

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|-------------------------------|-------------|-------------------|
| | DAY ON TEST | 0 | 0 | |
| | | 7 | 6 | 6 | 7 | 4 | 7 | 5 | 4 | 3 | 7 | 7 | 7 | 4 | 6 | 7 | 4 | 6 | 3 | 7 | 5 | 0 | 7 | 0 | 7 | 3 |
| | | 3 | 4 | 7 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 6 | 8 | 3 | 1 | 0 | 3 | 0 | 3 | 4 |
| | | 5 | 7 | 7 | 5 | 7 | 4 | 9 | 7 | 9 | 4 | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 8 | 6 | 2 | 8 | 4 | 8 | 4 | 8 |
| B6C3F1 MICE FEMALE
750 PPM | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 3 | 3 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | females (cont...) | |

Mammary Gland
Infiltration Cellular, Lymphocyte

+
1

Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia

+
4
1

MUSCULOSKELETAL SYSTEM

Bone
Dysplasia

+
3 1 1

NERVOUS SYSTEM

Brain
Compression
Degeneration
Mineralization

+
2
2
1 1 1 1 1 1

RESPIRATORY SYSTEM

Lung
Congestion
Hemorrhage
Infiltration Cellular, Lymphocyte
Alveolar Epithelium, Hyperplasia

+
2
1 1 1 1 1 2 1 1 1 1 1 1

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

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

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Page 132

TDMS No. 05068 - 10
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Route: DOSED FEED
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CODEINE
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Lab: MBA

| B6C3F1 MICE FEMALE
750 PPM | | DAY ON TEST | 0 | females
(cont...) | | |
|-------------------------------|---|-------------|----------------------|---|---|
| | | | 7 | 6 | 6 | 7 | 4 | 7 | 5 | 4 | 3 | 7 | 7 | 7 | 4 | 6 | 7 | 4 | 6 | 3 | 7 | 5 | 0 | 7 | 0 | | 7 | 3 |
| | | | 3 | 4 | 7 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 6 | 8 | 3 | 1 | 0 | 3 | 0 | | 3 | 4 |
| | | | 5 | 7 | 7 | 5 | 7 | 4 | 9 | 7 | 9 | 4 | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 8 | 6 | 2 | 8 | 4 | 8 | | 4 | 8 |
| | | ANIMAL ID | | | |
| 0 | 0 | | 0 | | | |
| 0 | 0 | | 0 | | | |
| 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 | | |

| | |
|--|---|
| Nose | + |
| Olfactory Epithelium, Degeneration, Hyaline | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | | 2 | | | 1 | 1 | 1 | 2 | | | | | 2 | |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | 2 | | | | | | | | 1 | | | | | | | | | |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Trachea | + |

SPECIAL SENSES SYSTEM

| |
|-----------------|
| Eye |
| Harderian Gland | |

URINARY SYSTEM

| |
|-----------------------------------|
| Kidney | + |
| Cyst |
| Inflammation, Chronic | | | | | 1 | | | | | | | | 1 | | 1 | | | | 1 | | | | | 1 | |
| Nephropathy | | | 2 | | | | | | | | | | | | | | | 2 | | | | | | | |
| Renal Tubule, Regeneration | 1 | | | 1 | | 1 | | | | 1 | 2 | 2 | | | 1 | | | | | | | 1 | | 1 | |
| Urinary Bladder | + | M | + | + | + | + |
| Infiltration Cellular, Lymphocyte | 1 | 1 | | 1 | 1 | | | | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 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

Page 133

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--|--|-------------------|
| DAY ON TEST | | 0 | 0 |
| | | 7 | 6 | 6 | 7 | 4 | 7 | 5 | 4 | 3 | 7 | 7 | 7 | 4 | 6 | 7 | 4 | 6 | 3 | 7 | 5 | 0 | 7 | 0 | 7 | 3 |
| | | 3 | 4 | 7 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 6 | 8 | 3 | 1 | 0 | 3 | 0 | 3 | 4 |
| | | 5 | 7 | 7 | 5 | 7 | 4 | 9 | 7 | 9 | 4 | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 8 | 6 | 2 | 8 | 4 | 8 | 4 | 8 |
| B6C3F1 MICE FEMALE
750 PPM

ANIMAL ID | | 0 | 0 |
| | | 0 | 0 |
| | | 3 | 3 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | females (cont...) | |

TDMS No. 05068 - 10
Test Type: CHRONIC
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| | | | | | | | | | | | |
|-------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B6C3F1 MICE FEMALE
750 PPM | DAY ON TEST | 0
7
3
4 | 0
6
2
5 | 0
4
5
7 | 0
7
3
4 | 0
4
5
7 | 0
4
5
7 | 0
7
5
5 | 0
7
3
5 | 0
7
3
5 | 0
7
3
5 |
| | | | | | | | | | | | |
| | ANIMAL ID | 0
0
3
5
1 | 0
0
3
5
2 | 0
0
3
5
3 | 0
0
3
5
4 | 0
0
3
5
5 | 0
0
3
5
6 | 0
0
3
5
7 | 0
0
3
5
8 | 0
0
3
5
9 | 0
0
3
6
0 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| * TOTALS | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 59 | |
| Gallbladder | + | + | + | + | + | M | M | + | + | + | 50 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 60 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 57 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 57 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 | |
| Cyst | | | | | | | | | | | | 1 2.0 |
| Eosinophilic Focus | | | | | | | 1 | | 1 | | | 7 2.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 5 1.6 |
| Inflammation, Chronic Active | | | | | 1 | 1 | 2 | 1 | 1 | | | 10 1.1 |
| Mitotic Alteration | | | | | | | | | | | | 1 2.0 |
| Necrosis | | | | | | | | | | | | 2 3.5 |
| Hepatocyte, Necrosis | | | | | | | | | | | | 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

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TDMS No. 05068 - 10
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Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 750 PPM | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|----|--------|
| Mesentery | | | | | | | | + | + | 9 | |
| Fat, Necrosis | | | | | | | | 3 | 2 | | 8 2.8 |
| Pancreas | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic | | | 1 | | 1 | | | | | | 4 1.0 |
| Acinar Cell, Atrophy | | | | | | | 4 | | | | 1 4.0 |
| Duct, Cyst | | | | | | | 4 | | | | 1 4.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | 59 | |
| Inflammation, Chronic | 1 | | 2 | 1 | 2 | | 1 | 1 | | | 34 1.3 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | 60 | |
| Hyperplasia | | | | | | | | | | | 1 4.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic Active | | | | | | | 1 | | | | 10 1.0 |
| Necrosis | | | | | | | | | | | 1 1.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | 60 | |
| Heart | + | + | + | + | + | + | + | + | + | 60 | |
| Fibrosis | | | | | | | | | | | 2 1.0 |
| Mineralization | | | | | | | | | | | 1 1.0 |
| Thrombosis | | | | | | | | | | | 2 2.0 |
| Artery, Inflammation, Chronic Active | | | 1 | | | | | | | | 1 2.0 |

* .. 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

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2) Mild 4) Marked

Page 136

TDMS No. 05068 - 10
Test Type: CHRONIC
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Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE
750 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
750 PPM | ANIMAL ID | 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 60 | |
| Angiectasis | | | | | | | | | | | | 1 3.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 2 2.0 |
| Subcapsular, Hyperplasia | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | | 55 1.4 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 59 | |
| Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 | |
| Parathyroid Gland | + | + | + | + | M | + | + | + | + | + | 47 | |
| Pituitary Gland | + | + | + | + | + | + | M | + | + | + | 56 | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | 1 2.0 |
| Pars Distalis, Cyst | | | | | | | | | | | | 1 1.0 |
| Pars Distalis, Hyperplasia | 2 | | | | | | | | 1 | | | 12 2.1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic Active | | | | | | | | 1 | | | | 6 1.0 |
| Follicle, Cyst | | | | | | | | | | 2 | | 1 2.0 |
| Follicular Cell, Hyperplasia, Focal | | | | | | | 3 | 1 | | 2 | | 29 1.6 |

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

Page 137

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|----------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 | |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 | |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 | |
| | | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 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 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 750 PPM | | | | | | | | | | | |
| | | | | | | | | | | | * TOTALS |

| | |
|------------|---|
| Tissue NOS | 1 |
|------------|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | M | 51 | | |
| Dilatation | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 3 | | | 46 | 2.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 | 1.5 |
| Pigmentation | 2 | | | | | | | | | | | 2 | 2.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Cyst | | | | | | 4 | | | | | | 12 | 2.8 |
| Oviduct | | | | | | | | | | | 1 | | |
| Dilatation | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | 3.0 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Dilatation | | | 2 | 4 | | | 3 | | | | | 14 | 3.4 |
| Hemorrhage | | | | | | | | | | | | 2 | 2.5 |
| Hyperplasia, Cystic | 4 | 1 | 1 | 2 | 3 | 1 | | 1 | 2 | 3 | | 49 | 2.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | 2.0 |
| Lymphatic, Ectasia | | | | | | | | | | | | 1 | 4.0 |

HEMATOPOIETIC SYSTEM

| | |
|-------|---|
| Blood | 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 138

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
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Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|------------------------------------|-----------|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 | |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 | |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 | |
| | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
750 PPM | ANIMAL ID | 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 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | * TOTALS |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | 60 |
| Atrophy | | | | | | | | | | 2 | 1 2.0 |
| Congestion | | | | | | | | | | | 1 3.0 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | 2 3.0 |
| | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | 2 |
| | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | 55 |
| Hemorrhage | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | 57 |
| Cyst | | | | | | | | 4 | | | 2 3.5 |
| Fibrosis | | | | | | | | | | | 1 4.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 1 3.0 |
| Hemorrhage | | | | | | | | | | | 2 1.5 |
| | | | | | | | | | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | 60 |
| Fibrosis | | | | | | | | | | | 1 2.0 |
| Hematopoietic Cell Proliferation | | | 4 | | | | 4 | | | | 19 2.9 |
| Hyperplasia, Lymphoid | | | | | | | | 2 | | | 4 2.0 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | |
| Thymus | | + | + | + | M | + | + | + | + | + | 50 |
| Atrophy | | | 4 | | | | | | | | 9 3.2 |
| Ectopic Parathyroid Gland | | | X | | | | | | | | 1 |
| Hyperplasia, Lymphoid | | 1 | | | | | | | | | 7 1.9 |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Lab: MBA

| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 750 PPM | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | 1.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Inflammation, Chronic Active | | | | | 1 | | | | | | | 3 | 2.3 |
| Epidermis, Hyperplasia | | | | | | | | | | | | 1 | 1.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Dysplasia | | | | | | 1 | | | | | | 6 | 1.5 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Brain | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Compression | | | | | | | | | | | | 1 | 2.0 |
| Degeneration | | | | | | | | | | | | 1 | 2.0 |
| Mineralization | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 21 | 1.0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Lung | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Congestion | | | | | | | | | | | | 1 | 2.0 |
| Hemorrhage | | | | | | | | | | | | 1 | 2.0 |
| Infiltration Cellular, Lymphocyte | | | | | 1 | 1 | | 1 | | 1 | | 28 | 1.1 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | 1 | 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

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Lab: MBA

| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 750 PPM | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|----|-----|
| Nose | + | + | + | + | + | + | + | + | + | + | 60 | |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | | 1 | 2 | | 2 | 2 | | 2 | | 39 | 1.7 |
| Respiratory Epithelium, Degeneration, Hyaline | | | 1 | | 1 | 1 | | | | | 6 | 1.2 |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | 1 | 1.0 |
| | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | 60 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|---|--|
| Eye | | | | | | | | | | | 1 | |
| Harderian Gland | | | | | | | | | | | 4 | |

URINARY SYSTEM

| | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | 60 | |
| Cyst | | | | | | X | | | | | 1 | |
| Inflammation, Chronic | | | 1 | 1 | 1 | 1 | | | | 1 | 19 | 1.0 |
| Nephropathy | | | | | | | 1 | | | | 3 | 1.7 |
| Renal Tubule, Regeneration | 2 | | | 1 | 1 | | | 1 | 1 | 2 | 28 | 1.3 |
| | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 59 | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 45 | 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

Page 141

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|-------------------------------|--|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 4 | 7 | 4 | 4 | 7 | 7 | 7 |
| | | 3 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 3 |
| | | 4 | 5 | 7 | 4 | 7 | 7 | 5 | 5 | 5 |
| B6C3F1 MICE FEMALE
750 PPM | | | | | | | | | | |
| | | 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 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | | | * TOTALS |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------------------|-----------|-------------|----------------------|
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | DAY ON TEST | | females
(cont...) |
| | | 0 | 0 | | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | |
| | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 5 | 4 | 4 | | |
| | | | |
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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 | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | + | + | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + |
| Liver | + |
| Atrophy | |
| Basophilic Focus | 3 | | | |
| Clear Cell Focus |
| Cyst | |
| Eosinophilic Focus |
| Fatty Change, Focal |

* .. 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 143

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| B6C3F1 MICE FEMALE
1500 PPM | | DAY ON TEST | | 0 | |
|--------------------------------|--|-------------|
| | | | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| ANIMAL ID | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | | |
| | | 0 | 0 | | |
| | | 0 | 0 | | |
| | | 3 | 3 | | |
| females
(cont...) | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | | 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 | | | |

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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0 | 0 |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 5 | 4 | 4 |
| | | |
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| | | females (cont...) | |

Blood Vessel
Aorta, Inflammation, Chronic Active

Heart
Artery, Inflammation, Chronic Active

ENDOCRINE SYSTEM

Adrenal Cortex
Cyst
Hypertrophy, Focal
Subcapsular, Hyperplasia

Adrenal Medulla
Hyperplasia

Islets, Pancreatic

Parathyroid Gland

Pituitary Gland
Craniopharyngeal Duct, Hyperplasia
Pars Distalis, Hyperplasia

Thyroid Gland
Inflammation, Chronic Active
Follicle, Cyst

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------------------|-------------|------------------|--|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0
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GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|---|---|
| Clitoral Gland | + | + | M | + | + | + | + | + | M | M | + | + | + | + | + | + | + | M | + | + | + | M | + | + |
| Dilatation | 2 | 3 | | 2 | 2 | 3 | 2 | 3 | | | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | | 3 | 2 | 2 | | 2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | 1 | | | | | | | 1 | 1 | 1 | | |
| Pigmentation | |
| Ovary | + |
| Cyst | 1 | 3 | | | | | | | | | | | | | 2 | | | 4 | | | | 2 | | 4 |
| Hemorrhage | |
| Infiltration Cellular, Histiocyte | 3 | 3 | | |
| Periovarian Tissue, Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Uterus | + |
| Atrophy | | 3 | | | |
| Dilatation | 4 | | | | 3 | | | | | | | | 4 | | | | | | | 2 | | | | |
| Hyperplasia, Cystic | | 1 | | 2 | 3 | 1 | 2 | 1 | 1 | 1 | 3 | 3 | | 3 | 4 | 2 | 2 | 3 | 3 | 2 | | 3 | 1 | 4 |
| Cervix, Inflammation, Chronic Active | 3 |

HEMATOPOIETIC 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

Page 146

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | DAY ON TEST | | |
|-----------------------------------|-----------|-------------|----------------------|--|
| | | 0 | 0 | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | |
| | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 4 | 6 | 5 | 5 | 4 | 4 | 4 | |
| | | | | |
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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...) | |
| Bone Marrow | | + | + | | |
| Congestion | | | | |
| Myeloid Cell, Hyperplasia | | | | |
| Lymph Node | | | | |
| Iliac, Hyperplasia, Lymphoid | | | | |
| Inguinal, Pigmentation | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | | |
| Hyperplasia, Lymphoid | | | 4 | | | | | | |
| Lymph Node, Mesenteric | | + | + | | |
| Hematopoietic Cell Proliferation | | | 2 | | 2 | | | | |
| Hemorrhage | | | 2 | | | | |
| Infiltration Cellular, Histiocyte | | | | |
| Spleen | | + | + | | |
| Atrophy | | | | |
| Fibrosis | | | 2 | | | |
| Hematopoietic Cell Proliferation | | | | 1 | | 1 | 2 | | | | | | | 2 | | | | 1 | | 2 | | 2 | | | 4 | | | | |
| Hyperplasia, Lymphoid | | 2 | | | | | | | | | | | 2 | | | | | | | | | | 2 | | | | | | |
| Pigmentation, Hemosiderin | | | | |
| Thymus | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | 3 | | | | | | | | | | 2 | | | | |
| Ectopic Thyroid | | | | |
| Hyperplasia, Lymphoid | | | | | 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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1) Minimal 3) Moderate

2) Mild 4) Marked

Page 147

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | |
|--------------------------------|--|-----------|---|-------------------|
| DAY ON TEST | | 0 | 0 | 0 | 0 | | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 5 | 4 | 4 | 4 | | |
| B6C3F1 MICE FEMALE
1500 PPM | | ANIMAL ID | | 0 | 0 | | |
| | | | | 0 | 0 | |
| | | | | 3 | 3 |
| | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | | | 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...) | |

INTEGUMENTARY SYSTEM

| | |
|---|---|
| Mammary Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia
Fat, Subcutaneous Tissue, Atrophy | + |

MUSCULOSKELETAL SYSTEM

| | |
|---|---|
| Bone
Dysplasia
Fracture
Artery, Inflammation, Chronic Active | + |
| Skeletal Muscle | |

NERVOUS SYSTEM

| | |
|---|---|
| Brain
Compression
Infiltration Cellular, Histiocyte
Mineralization
Artery, Inflammation, Chronic Active | + |
| | |

* .. 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

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Page 148

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Lab: MBA

| | | | | |
|--------------------------------|---|-----------|----------------------|---|
| DAY ON TEST | | 0 | 0 | | | | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | 7 | | |
| | | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | 3 | | |
| | | 4 | 7 | 6 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 5 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 5 | 5 | 4 | 4 | | 4 | | |
| B6C3F1 MICE FEMALE
1500 PPM | | | | |
| | | ANIMAL ID | | 0 | females
(cont...) | |
| | | | | 0 | | 0 |
| | | | | 3 | | 3 |
| | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | | 8 |
| 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 | | | | |

Spinal Cord

RESPIRATORY SYSTEM

| | |
|--|---|
| Lung | + |
| Infiltration Cellular, Lymphocyte | 1 | 1 | | | | 1 | 1 | | | 1 | | | | | | 1 | | 1 | | | | | 1 | 1 | 2 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Nose | + | + | M | + |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 2 | | 2 | 1 | 2 | 2 | | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | | 1 | 2 | | | | |
| Respiratory Epithelium, Degeneration, Hyaline | | 2 | | | | | 2 | | | 2 | | | | | | 1 | | | | | | | | | |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Trachea | + |

SPECIAL SENSES SYSTEM

| | |
|------------------------------|---|
| Ear | |
| Eye | |
| Atrophy | + |
| Inflammation, Chronic Active | 3 |
| Harderian Gland | + |

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|----------------------|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0 | females
(cont...) |
| | | 6 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 0 | 3 | 3 | 3 | 5 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | |
| | | 3 | 5 | 7 | 4 | 3 | 5 | 7 | 5 | 7 | 5 | 9 | 3 | 6 | 5 | 4 | 7 | 8 | 4 | 5 | 7 | 5 | 5 | 5 | |
| | | |
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | 0 | females
(cont...) |
| | | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

ALIMENTARY SYSTEM

| | |
|---|---|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + | M | + | + | + |
| Intestine Small, Duodenum
Ulcer | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | + | + | + | + |
| Intestine Small, Ileum | M | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | 2 | |
| Liver | + |
| Atrophy | 3 | |
| Basophilic Focus |
| Clear Cell Focus |
| Cyst | 3 | |
| Eosinophilic Focus | | 4 | | | | | | 2 | | 3 | | X | | | | | | | X | | 1 | | | |
| Fatty Change, Focal | 2 | | | | |

* .. 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 151

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| DAY ON TEST | | 0 |
|--------------------------------------|--|----------------------|
| | | 6 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 4 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 0 | 3 | 3 | 3 | 5 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 3 | 5 | 7 | 4 | 3 | 5 | 7 | 5 | 7 | 5 | 9 | 3 | 6 | 5 | 4 | 7 | 8 | 4 | 5 | 7 | 5 | 5 | 5 | 5 | 5 | 6 |
| B6C3F1 MICE FEMALE | | 0 |
| 1500 PPM | | 0 |
| ANIMAL ID | | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | females
(cont...) |
| Infarct | | 2 | |
| Inflammation, Chronic Active | | 1 | |
| Mineralization | | 2 | |
| Mixed Cell Focus | | 2 | |
| Necrosis | | 1 | |
| Bile Duct, Hyperplasia | | X | |
| Centrilobular, Inflammation, Chronic | | 2 | |
| Centrilobular, Pigmentation | | 2 | |
| Mesentery | | + | |
| Artery, Inflammation, Chronic Active | | 4 | |
| Fat, Necrosis | | 4 | |
| Pancreas | | + | |
| Inflammation, Chronic | | 1 | |
| Inflammation, Chronic Active | | 2 | |
| Acinar Cell, Atrophy | | |
| Salivary Glands | | + | |
| Inflammation, Chronic | | 1 | |
| Stomach, Forestomach | | + | |
| Hyperplasia | | 3 | |
| Inflammation, Chronic Active | | 2 | |
| Stomach, Glandular | | + | |
| Necrosis | | |

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 152

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| |
|--------------------------------|
| DAY ON TEST | 0 |
| | 6 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| B6C3F1 MICE FEMALE
1500 PPM | 4 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 0 | 3 | 3 | 3 | 5 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 5 | 7 | 4 | 3 | 5 | 7 | 5 | 7 | 5 | 9 | 3 | 6 | 5 | 4 | 7 | 8 | 4 | 5 | 7 | 5 | 5 | 5 | 5 | 6 |
| ANIMAL ID | 0 |
| | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| females (cont...) |

Blood Vessel
Aorta, Inflammation, Chronic Active

Heart
Artery, Inflammation, Chronic Active

ENDOCRINE SYSTEM

Adrenal Cortex
Cyst
Hypertrophy, Focal
Subcapsular, Hyperplasia

Adrenal Medulla
Hyperplasia

Islets, Pancreatic

Parathyroid Gland

Pituitary Gland
Craniopharyngeal Duct, Hyperplasia
Pars Distalis, Hyperplasia

Thyroid Gland
Inflammation, Chronic Active
Follicle, Cyst

TDMS No. 05068 - 10
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Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|--|-------------|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0 | |
| | | 6 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 0 | 3 | 3 | 3 | 5 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | |
| | | 3 | 5 | 7 | 4 | 3 | 5 | 7 | 5 | 7 | 5 | 9 | 3 | 6 | 5 | 4 | 7 | 8 | 4 | 5 | 7 | 5 | 5 | 5 | 6 | |
| | <hr/> |
| | ANIMAL ID | 0 | |
| | | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | <hr/> |
| | | 1 | 2 | 4 | | | | 2 | 1 | 1 | 3 | | | 1 | 2 | 3 | 3 | 2 | | | 2 | 1 | 1 | 1 | 4 | 1 |
| Follicular Cell, Hyperplasia, Focal
Follicular Cell, Hyperplasia, Diffuse | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|--|---|
| Clitoral Gland | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dilatation | 2 | 3 | 1 | 2 | 2 | 3 | 2 | | | 2 | 2 | | 3 | 3 | 2 | 3 | | | 1 | 3 | 2 | 3 | 1 | 3 |
| Inflammation, Chronic Active | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | 4 | | | | | | | | | | | | 4 | 2 | | | | 4 | | | | 1 | |
| Hemorrhage |
| Infiltration Cellular, Histiocyte |
| Periovarian Tissue, Infiltration Cellular, | |
| Lymphocyte |
| Uterus | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy |
| Dilatation | | | | 4 | | | 4 | | | | | | | | | | | | | 4 | 4 | | | |
| Hyperplasia, Cystic | 4 | 3 | 1 | 4 | 2 | 1 | | 2 | | 3 | | 1 | 2 | 3 | 2 | 2 | | 2 | 4 | | | 2 | 4 | 2 |
| Cervix, Inflammation, Chronic Active | 2 | | | |

HEMATOPOIETIC 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

Page 154

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

CODEINE

CAS Number: 76-57-3

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Lab: MBA

[illegible]

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x .. Lesion present

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CODEINE
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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|----------------------|
| | DAY ON TEST | 0 | females
(cont...) |
| | | 6 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 7 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 0 | 3 | 3 | 5 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | |
| | | 3 | 5 | 7 | 4 | 3 | 5 | 7 | 5 | 7 | 5 | 9 | 3 | 6 | 5 | 4 | 7 | 8 | 4 | 5 | 7 | 5 | 5 | 5 | |
| B6C3F1 MICE FEMALE
1500 PPM | ANIMAL ID | 0 | females
(cont...) |
| | | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

INTEGUMENTARY SYSTEM

| |
|-----------------------------------|
| Mammary Gland | + |
| Hyperplasia | | | | 4 | |
| Skin | + |
| Inflammation, Chronic Active | | 1 | | | | | | | | | | 2 | 3 | | | | | | | | | | | |
| Epidermis, Hyperplasia |
| Fat, Subcutaneous Tissue, Atrophy | | | | | | | | | | | 3 | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| |
|--------------------------------------|
| Bone | + |
| Dysplasia | | | | | | | | | | | | | | | | | 2 | | | | 1 | | | |
| Fracture |
| Artery, Inflammation, Chronic Active | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | + | | | | | | | | | | | |

NERVOUS SYSTEM

| |
|--------------------------------------|
| Brain | + |
| Compression | | | | 4 | |
| Infiltration Cellular, Histiocyte | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | 1 | | | | 1 | 1 | | | | | 1 | 1 | 2 | 1 | | | | | 1 | | | | |
| Artery, Inflammation, Chronic Active | | | | | 2 | | | | | | | | | | | | | | | | | | | |

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

+ .. Tissue examined microscopically

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Page 156

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | | | | | | | | | | |
|--------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0
7
3
4 | 0
7
3
1 | 0
7
3
5 | 0
4
5
7 | 0
7
3
6 | 0
7
3
4 | 0
7
3
5 | 0
7
3
4 | 0
4
5
7 | 0
7
3
6 |
| | <hr/> | | | | | | | | | | |
| | ANIMAL ID | 0
0
4
1
1 | 0
0
4
1
2 | 0
0
4
1
3 | 0
0
4
1
4 | 0
0
4
1
5 | 0
0
4
1
6 | 0
0
4
1
7 | 0
0
4
1
8 | 0
0
4
1
9 | 0
0
4
2
0 |
| | | | | | | | | | | | |
| | * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 58 |
| Gallbladder | + | + | + | + | + | + | + | M | + | + | 56 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 60 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 60 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 59 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 57 |
| Ulcer | | | | | | | | | | | 1 2.0 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 57 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 59 |
| Hyperplasia, Lymphoid | | | | | | | | | | | 1 2.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 60 |
| Atrophy | | | | | | | | | | | 1 3.0 |
| Basophilic Focus | | | | | | | | | | | 1 3.0 |
| Clear Cell Focus | | | | | | | | | | | 1 |
| Cyst | | | | | | | | | | | 2 3.0 |
| Eosinophilic Focus | | | | | | | | | | | 9 2.8 |
| Fatty Change, Focal | | | | | | | | | | | 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. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--------------------------------------|--|-------|---|---|---|---|---|---|---|---|---|------------|
| DAY ON TEST | | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | |
| | | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | |
| | | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 | |
| | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1500 PPM | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | * TOTALS |
| Infarct | | | | | | | | | | | | 2 3.0 |
| Inflammation, Chronic Active | | 1 1 1 | | | | | | | | | | 14 1.0 |
| Mineralization | | | | | | | | | | | | 1 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | 3 2.0 |
| Necrosis | | | | | | | | | | | | 2 1.0 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Centrilobular, Inflammation, Chronic | | | | | | | | | | | | 1 2.0 |
| Centrilobular, Pigmentation | | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | | |
| Mesentery | | + | | | | | | | | | | 7 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 1 4.0 |
| Fat, Necrosis | | 4 | | | | | | | | | | 2 6 3.3 |
| | | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic | | | | | | | | | | | | 1 4 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Acinar Cell, Atrophy | | 2 | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic | | 1 1 1 | | | | | | | | | | 2 2 34 1.2 |
| | | | | | | | | | | | | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | 60 |
| Hyperplasia | | | | | | | | | | | | 2 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 2.0 |
| | | | | | | | | | | | | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | 60 |
| Necrosis | | | | | | | | | | | | 1 2.0 |

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

Page 160

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

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 CODEINE
 CAS Number: 76-57-3

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 Lab: MBA

| | | DAY ON TEST | | | | | | | | | |
|--------------------------------|--|-------------|---|---|---|---|---|---|---|---|----------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 |
| | | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 |
| <hr/> | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
1500 PPM | | ANIMAL ID | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | * TOTALS |

| | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 59 |
| Aorta, Inflammation, Chronic Active | | | | | | | | | | | 1 2.0 |
| Heart | + | + | + | + | + | + | + | + | + | + | 60 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | 1 4.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 59 |
| Cyst | | | | | | | | | | | 1 2.0 |
| Hypertrophy, Focal | | | | | | | | | | | 1 1.0 |
| Subcapsular, Hyperplasia | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 58 1.4 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 59 |
| Hyperplasia | | 2 | | | | | | | | | 2 2.5 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 60 |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | 48 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 58 |
| Craniopharyngeal Duct, Hyperplasia | | | | | | | | | | | 1 2.0 |
| Pars Distalis, Hyperplasia | | | 2 | | | | | | 2 | | 13 1.8 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 60 |
| Inflammation, Chronic Active | | | | | | | 1 | | | | 10 1.2 |
| Follicle, Cyst | | 2 | | | | | | | | | 5 1.6 |

* .. 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 161

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 |
| | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 |
| | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
1500 PPM
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | * TOTALS |
| Follicular Cell, Hyperplasia, Focal | | | | | | | | | | 43 1.7 |
| Follicular Cell, Hyperplasia, Diffuse | | | | | | | | | | 1 4.0 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|----|--------|
| Clitoral Gland
Dilatation
Inflammation, Chronic Active
Pigmentation | M | + | + | + | + | + | + | + | + | + | 53 | |
| | | 2 | 2 | 2 | 3 | 2 | | | 4 | 1 | | 47 2.4 |
| | | | | | | | | | | | | 5 1.0 |
| | | | | | 2 | | | | | | | 2 2.0 |
| | | | | | | | | | | | | |
| Ovary
Cyst
Hemorrhage
Infiltration Cellular, Histiocyte
Periovarian Tissue, Infiltration Cellular,
Lymphocyte | + | + | + | + | + | + | + | + | + | + | 59 | |
| | | | 1 | | | 2 | | | 2 | | | 14 2.6 |
| | | | | | | 2 | | | | | | 1 2.0 |
| | | | | | | | | | | | | 2 3.0 |
| | | | | | | | | | | | | 1 3.0 |
| | | | | | | | | | | | | |
| Uterus
Atrophy
Dilatation
Hyperplasia, Cystic
Cervix, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | 59 | |
| | | | | | | | | | | | | 1 3.0 |
| | | 4 | | | | | | | 3 | | | 10 3.6 |
| | | | 1 | 2 | 4 | 2 | 2 | | 2 | 4 | | 46 2.4 |
| | | | | | | | | | | | | 1 2.0 |

HEMATOPOIETIC 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. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|-----------------------------------|--|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 |
| | | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 |
| <hr/> | | | | | | | | | | | |
| B6C3F1 MICE FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1500 PPM | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | * TOTALS |
| <hr/> | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | 60 |
| Congestion | | | | | | | | | | | 1 3.0 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | 1 3.0 |
| <hr/> | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | 2 |
| Iliac, Hyperplasia, Lymphoid | | | | | | | | | | | 1 3.0 |
| Inguinal, Pigmentation | | | | | | | | | | | 1 1.0 |
| <hr/> | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | 58 |
| Hyperplasia, Lymphoid | | | | | | | 3 | | | | 4 2.8 |
| <hr/> | | | | | | | | | | | |
| Lymph Node, Mesenteric | | + | M | + | + | + | + | + | + | + | 56 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 2 2.0 |
| Hemorrhage | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | 1 1.0 |
| <hr/> | | | | | | | | | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | 60 |
| Atrophy | | | | | | | | | | | 1 3.0 |
| Fibrosis | | | | | | | | | | | 1 2.0 |
| Hematopoietic Cell Proliferation | | | 3 | 2 | | | 2 | | | | 18 2.2 |
| Hyperplasia, Lymphoid | | | | | | | | 2 | | | 6 2.0 |
| Pigmentation, Hemosiderin | | | | | | | | | | | 2 2.0 |
| <hr/> | | | | | | | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | + | 56 |
| Atrophy | | | 2 | | | | | | | | 4 2.5 |
| Ectopic Thyroid | | | | | | | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | | 2 | | 2 | 2 | | 8 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|----------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 4 | 7 |
| | | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 5 | 3 |
| | | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 |
| | | 6 | | | | | | | | |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1500 PPM | | | | | | | | | | |
| | | | | | | | | | | * TOTALS |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 59 | |
| Hyperplasia | | 1 | | | | | | | | | 2 | 2.5 |
| | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | 60 | |
| Inflammation, Chronic Active | 1 | | | | | | | | | | 7 | 2.0 |
| Epidermis, Hyperplasia | | | | | | | | | | | 1 | 2.0 |
| Fat, Subcutaneous Tissue, Atrophy | | | | | | | | | | | 1 | 3.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone | + | + | + | + | + | + | + | + | + | + | 60 | |
| Dysplasia | | 1 | | | 2 | | | | | | 8 | 1.6 |
| Fracture | | | | | | | | | | | 1 | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | 1 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Brain | + | + | + | + | + | + | + | + | + | + | 60 | |
| Compression | | 4 | | | | | | 2 | | | 3 | 3.3 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | 1 | 2.0 |
| Mineralization | 1 | | | | 1 | | | | | 1 | 22 | 1.0 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | 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

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A .. Autolysis precludes evaluation

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TDMS No. 05068 - 10
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Species/Strain: MICE/B6C3F1

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CODEINE
CAS Number: 76-57-3

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 |
| | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 |
| | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
1500 PPM

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

| | |
|-------------|---|
| Spinal Cord | 1 |
|-------------|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Lung | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Infiltration Cellular, Lymphocyte | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 33 | 1.1 |
| Alveolar Epithelium, Hyperplasia | | | | | | | 1 | | | | | 2 | 1.0 |
| | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | 59 | | |
| Olfactory Epithelium, Degeneration, Hyaline | 1 | 2 | | 2 | 2 | | | | | | | 35 | 1.7 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | 1 | | | | | 1 | | | 8 | 1.4 |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | 60 | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|---|---|-----|
| Ear | | | | | | | | | | | 1 | | |
| | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | 2 | | |
| Atrophy | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | 3 | | |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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A .. Autolysis precludes evaluation

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2) Mild 4) Marked

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TDMS No. 05068 - 10
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 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
 Time Report Reqsted: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE
1500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 |
| | | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | 3 |
| | | 4 | 1 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 6 |
| | <hr/> | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| * TOTALS | | | | | | | | | | | |
| Inflammation, Chronic Active2 4.0 | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Infarct | | | | | | | | | | | | 2 | 1.5 |
| Inflammation, Chronic | | | | 1 | | | | | | | | 15 | 1.1 |
| Nephropathy | | | | | | | | | | | | 2 | 2.5 |
| Renal Tubule, Karyomegaly | | | | | | | | | | | | 1 | 2.0 |
| Renal Tubule, Regeneration | | 1 | 1 | | 2 | | 1 | 1 | | | | 31 | 1.1 |
| <hr/> | | | | | | | | | | | | | |
| Ureter | | | | | | | | | | | 1 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | 1.0 |
| <hr/> | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 60 | | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 2 | 1 | | 46 | 1.2 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 1 | 1.0 |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 166

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------------------|-------------|----------------------|---|
| | DAY ON TEST | 0 | females
(cont...) | |
| | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | | 4 |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | | 5 |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | | 7 |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | females
(cont...) | |
| | | 0 | | |
| | | 4 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | | |
| | | 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 | + |
| Gallbladder
Inflammation, Chronic Active | M | + | + | + | + | M | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + | M | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Intestine Small, Jejunum
Hemorrhage
Hyperplasia, Lymphoid | + |
| Liver
Angiectasis
Basophilic Focus
Congestion
Eosinophilic Focus
Hematopoietic Cell Proliferation | + |
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| | |
| | |

* .. 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 167

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--|-------------|------------------|----------------------|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0
7
1
1 | 0
7
3
6 | 0
6
8
0 | 0
7
3
5 | 0
7
3
6 | 0
4
5
7 | 0
5
5
6 | 0
7
3
5 | 0
5
3
8 | 0
7
3
5 | 0
4
5
7 | 0
7
3
4 | 0
5
0
6 | 0
7
3
4 | 0
7
3
4 | 0
4
5
7 | 0
7
3
4 | 0
7
3
1 | 0
7
3
6 | 0
7
3
4 | 0
7
3
5 | 0
7
3
4 | 0
6
3
4 | 0
7
3
1 | 0
4
3
7 | females
(cont...) |
| | ANIMAL ID | 0
0
4
2
1 | 0
0
4
2
2 | 0
0
4
2
3 | 0
0
4
2
4 | 0
0
4
2
5 | 0
0
4
2
6 | 0
0
4
2
7 | 0
0
4
2
8 | 0
0
4
3
0 | 0
0
4
3
1 | 0
0
4
3
2 | 0
0
4
3
3 | 0
0
4
3
4 | 0
0
4
3
5 | 0
0
4
3
6 | 0
0
4
3
7 | 0
0
4
3
8 | 0
0
4
4
0 | 0
0
4
4
1 | 0
0
4
4
2 | 0
0
4
4
3 | 0
0
4
4
4 | 0
0
4
4
5 | 0
0
4
4
6 | | |
| | | | |
| | | | |
| | | | |
| Infarct
Inflammation, Chronic Active
Mitotic Alteration
Mixed Cell Focus
Necrosis
Kupffer Cell, Hypertrophy | | | |
| Mesentery
Inflammation, Chronic Active
Fat, Necrosis | | | |
| Pancreas
Inflammation, Chronic Active
Acinar Cell, Atrophy
Duct, Cyst | | | |
| Salivary Glands
Inflammation, Chronic | | | |
| Stomach, Forestomach
Hyperplasia
Inflammation, Acute
Inflammation, Chronic Active | | | |
| Stomach, Glandular
Cyst
Inflammation, Chronic Active | | | |

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

Page 168

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|-------------------|
| | DAY ON TEST | 0 | 0 | | |
| | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | 4 | |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 5 | |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | 1 | 7 |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 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 | M | + |
| Heart | + |

ENDOCRINE SYSTEM

| |
|------------------------------|
| Adrenal Cortex | + | |
| Angiectasis |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 4 | | | | | | 3 | | |
| Subcapsular, Hyperplasia | 1 | 2 | | | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 |
| Adrenal Medulla | M | + | |
| Hyperplasia |
| Islets, Pancreatic | + | |
| Parathyroid Gland | M | M | M | M | + | M | + | + | + | M | + | + | + | M | + | + | + | + | M | M | M | + | M | M | + | |
| Pituitary Gland | + | M | + | |
| Pars Distalis, Angiectasis |
| Pars Distalis, Cyst |
| Pars Distalis, Hyperplasia | | | | | 1 | | 3 | 1 | | | | | | | | | | | 2 | 3 | 1 | | | | 2 | |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Thyroid Gland | + | |
| Inflammation, Chronic Active | |
| Follicle, Cyst |

* .. 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. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|-------------------------------------|-------------|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0 | |
| | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 4 | |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 5 |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | 1 |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 4 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| Follicular Cell, Hyperplasia, Focal | | 1 | 2 | 1 | 1 | 2 | 1 | | 2 | 2 | | 2 | 1 | 2 | 1 | | 4 | | 2 | 1 | 2 | 2 | 2 | 2 | 2 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|---|---|
| Clitoral Gland | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| | 1 | 2 | 3 | | 2 | 2 | 2 | 2 | 3 | | 2 | 3 | 2 | | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 3 |
| | 2 | 1 | | | | 1 | | | | | | | | 1 | | | 3 | | | | | | |
| Inflammation, Chronic Active | | | 2 | |
| | |
| | |
| Pigmentation | |
| | |
| | |
| Ovary | + |
| | |
| | |
| Abscess | |
| | |
| | |
| Cyst | |
| | |
| | |
| Inflammation, Chronic Active |
| | |
| | |
| Periovarian Tissue, Infiltration Cellular, Lymphocyte | |
| | |
| | |
| Oviduct | |
| | |
| | |
| Uterus | + |
| | |
| | |
| Dilatation | |
| | |
| | |
| Hyperplasia, Cystic |
| | |
| | |
| Vagina | |
| | |
| | |

* .. 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 170

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0 | 0 | |
| | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | 4 |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 5 |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | 1 |
| | | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | |
| | | 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...) | |

HEMATOPOIETIC SYSTEM

| |
|---------------------------------------|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia | 2 | | | | |
| Lymph Node | | | + | | | | | + | | + | | | + | | | | | | | + | | | | |
| Mediastinal, Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Lymph Node, Mandibular | + |
| Hyperplasia, Lymphoid | M | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active |
| Spleen | + |
| Hematopoietic Cell Proliferation | | | 3 | | | | | | | 1 | 2 | | | | 3 | 2 | | | | 4 | | | 2 | 4 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Pigmentation, Hemosiderin |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Thymus | M | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | M | M | + | + | + |
| Atrophy | | | 4 | | | | | | | | | | | 1 | | | | | | | | | | |
| Ectopic Parathyroid Gland |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 1 | | | | | | | | | | X | |

INTEGUMENTARY SYSTEM

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | 0 |
|---|--|---|----------------------|
| DAY ON TEST | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 4 | |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 5 | |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | 1 | 7 | |
| | | | |
| B6C3F1 MICE FEMALE | | 0 | 0 | |
| ANIMAL ID | | 0 | 0 | |
| 3000 PPM | | 4 | 4 | |
| | | 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 | |
| | | 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...) |
| Mammary Gland | | + | + | |
| Inflammation, Chronic Active | | 1 | |
| | | | |
| Skin | | + | + | |
| Inflammation, Chronic Active | | | |
| Epidermis, Hyperplasia | | | |
| Fat, Subcutaneous Tissue, Atrophy | | | |
| Subcutaneous Tissue, Inflammation, Chronic Active | | | |
| | | | |
| MUSCULOSKELETAL SYSTEM | | | |
| | | | |
| | | | |
| Bone | | + | + | |
| Dysplasia | | 1 | |
| | | | |
| Skeletal Muscle | | | |
| | | | |
| NERVOUS SYSTEM | | | |
| | | | |
| | | | |
| Brain | | + | + | |
| Compression | | 3 | |
| Mineralization | | 1 | |
| | | | |
| RESPIRATORY SYSTEM | | | |
| | | | |
| | | | |
| Lung | | + | + | |
| Infiltration Cellular, Lymphocyte | | 1 | |

MUSCULOSKELETAL SYSTEM

| |
|-----------------|
| Bone | + |
| Dysplasia |
| |
| Skeletal Muscle | |

NERVOUS SYSTEM

| |
|----------------|
| Brain | + |
| Compression |
| Mineralization | 1 | |

RESPIRATORY SYSTEM

| |
|-----------------------------------|
| Lung | + |
| Infiltration Cellular, Lymphocyte | | 1 | | | 1 | 1 | | | | | | 1 | 1 | | 1 | | 1 | | | 1 | | 1 | 1 | | | |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Page 172

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | 0 | |
|--|--|----------------------|
| DAY ON TEST | | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 4 | |
| | | 1 | 3 | 8 | 1 | 3 | 3 | 5 | 5 | 3 | 9 | 3 | 5 | 3 | 0 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 5 | |
| | | 1 | 6 | 0 | 9 | 5 | 6 | 7 | 6 | 5 | 8 | 5 | 7 | 4 | 6 | 4 | 4 | 7 | 4 | 1 | 6 | 4 | 5 | 4 | 1 | 7 | |
| | | |
| B6C3F1 MICE FEMALE | | 0 | |
| ANIMAL ID | | 0 | |
| 3000 PPM | | 4 | |
| | | 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 | |
| | | 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...) |
| Alveolar Epithelium, Hyperplasia | | 2 | |
| | | |
| Nose | | + | |
| Olfactory Epithelium, Degeneration, Hyaline | | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | | 1 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | |
| Respiratory Epithelium, Degeneration, Hyaline | | 2 | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | | |
| Respiratory Epithelium, Inflammation, Chronic Active | | |
| | | |
| Trachea | | + | |
| | | |
| SPECIAL SENSES SYSTEM | | |
| | | |
| Eye | | | | | | | | | | | | + | | | | | | | | | | | + | | | | |
| Inflammation, Chronic Active | | 3 | | | | |
| Cornea, Inflammation, Chronic Active | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| | | |
| Harderian Gland | | | | | | | | | | | | + | | | | | | | | | | | + | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| | | |
| URINARY SYSTEM | | |
| | | |
| Kidney | | + | |
| Atrophy | | |
| Hemorrhage | | 4 | |
| Hydronephrosis | | |
| Infarct | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | |

* .. 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 173

TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Requested: 06/07/2007
 Time Report Requested: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| B6C3F1 MICE FEMALE
3000 PPM | | DAY ON TEST | 0
7
1
1 | 0
7
3
6 | 0
6
8
0 | 0
7
3
9 | 0
7
3
5 | 0
7
4
6 | 0
7
5
7 | 0
7
3
5 | 0
7
4
7 | 0
7
5
6 | 0
7
3
4 | 0
7
7
4 | 0
7
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4 | 0
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|--------------------------------|--|-------------|-------------|-------------|
|--------------------------------|--|-------------|-------------|-------------|

females
(cont...)

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------|-------------|-------------------|
| | DAY ON TEST | 0 | | | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 3 | 7 | 7 | 7 | | | |
| | | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 5 | 0 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | | | |
| | | 4 | 7 | 5 | 4 | 4 | 0 | 8 | 5 | 7 | 4 | 5 | 7 | 8 | 5 | 7 | 4 | 4 | 2 | 6 | 0 | 7 | 1 | 5 | 4 | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | | | |
| | | 0 | | | |
| | | 4 | | | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | | |
| 3000 PPM | | 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 | females (cont...) |

ALIMENTARY SYSTEM

| | | | | | | |
|---|--|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | | + | + | + | + | + |
| Gallbladder
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | M | + | + | + | A | + | + | M | + | M | + | | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | | + | + | + | + | + |
| Intestine Small, Jejunum
Hemorrhage
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Angiectasis | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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

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TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------------------|-------------------|-----------------------|--|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0
7
3
4 | 0
4
5
7 | 0
7
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5 | 0
7
3
4 | 0
7
3
4 | 0
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| | ANIMAL ID | 0
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| | females (cont...) | | |
| | Blood Vessel | | |
| | Heart | | |
| ENDOCRINE SYSTEM | | | |
| | | | |
| Adrenal Cortex | | | |
| Angiectasis | | | |
| Inflammation, Chronic Active | | | |
| Subcapsular, Hyperplasia | | | |
| Adrenal Medulla | | | |
| Hyperplasia | | | |
| | | | |
| Islets, Pancreatic | | | |
| | | | |
| Parathyroid Gland | | | |
| | | | |
| Pituitary Gland | | | |
| Pars Distalis, Angiectasis | | | |
| Pars Distalis, Cyst | | | |
| Pars Distalis, Hyperplasia | | | |
| Pars Intermedia, Hyperplasia | | | |
| | | | |
| Thyroid Gland | | | |
| Inflammation, Chronic Active | | | |
| Follicle, Cyst | | | |

* .. 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 177

TDMS No. 05068 - 10
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | |
|--------------------------------|-------------------------------------|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0 | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 3 | 7 | 7 | 7 | 7 | |
| | | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 5 | 0 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | 9 | 3 | 3 | 3 |
| | <hr/> |
| | ANIMAL ID | 0 | |
| | | 0 |
| | | 4 |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | <hr/> |
| | Follicular Cell, Hyperplasia, Focal | | 2 | | 1 | 4 | 1 | 2 | 1 | 1 | | 2 | 2 | | | 2 | 1 | 2 | 2 | 4 | | | 1 | 3 | 2 |
| females (cont...) | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|---|---|
| Clitoral Gland | + | + | + | + | + | M | + | + | M | + | + | + | + | + | M | + | + | + | + | | M | M | + | + | + |
| Dilatation | 3 | | 2 | 2 | 2 | | 2 | 2 | | 2 | 2 | | | 2 | | 2 | 3 | 3 | 1 | | | | 3 | 3 | 3 |
| Inflammation, Chronic Active | | | 1 | | 1 | |
| Pigmentation | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Abscess | | 4 | | | |
| Cyst | | | | | | | 4 | | 2 | | | | | | | | 2 | | | | | | | | 2 |
| Inflammation, Chronic Active | 4 | | | |
| Periovarian Tissue, Infiltration Cellular, Lymphocyte | | 3 | | |
| Oviduct | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Dilatation | | | | | 3 | | | | | 2 | | | | | | | | | | 4 | | | 4 | | |
| Hyperplasia, Cystic | 3 | 2 | 4 | 1 | | 1 | 3 | 2 | | | 4 | 1 | | 4 | 2 | 2 | 1 | | | | 2 | 1 | 2 | 2 | 4 |
| Vagina | | + |

* .. 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 178

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | |
|--------------------------------|-------------|----------------------|---|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0 | females
(cont...) | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 4 | 7 | 7 | 7 | 4 | 3 | 7 | 7 | 7 | | |
| | | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 5 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 3 | | |
| | | 4 | 7 | 5 | 4 | 4 | 0 | 8 | 5 | 2 | 4 | 5 | 7 | 8 | 5 | 7 | 4 | 4 | 2 | 6 | 0 | 7 | 1 | 5 | | 4 |
| | | 4 | 7 | 5 | 4 | 4 | 0 | 8 | 5 | 2 | 4 | 5 | 7 | 8 | 5 | 7 | 4 | 4 | 2 | 6 | 0 | 7 | 1 | 5 | | 4 |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | females
(cont...) | |
| | | 0 | | |
| | | 4 | | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 |

females
(cont...)

HEMATOPOIETIC SYSTEM

| | |
|---|---|
| Bone Marrow
Myeloid Cell, Hyperplasia | + |
| Lymph Node
Mediastinal, Hyperplasia, Plasma Cell | | | | | | | | | | | | | | + | | | | | | | | + | | | | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 3 | + | + | + | 2 | + | + | + | + | 3 | + | + |
| Lymph Node, Mesenteric
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 2 | + | + | + | + |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Pigmentation, Hemosiderin
Capsule, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 4 | + | + | + |
| | 3 | | | | | | | | | | 1 | | | | 2 | | | | | | | 1 | 1 | | | |
| | | | | | | 2 | |
| Thymus
Atrophy
Ectopic Parathyroid Gland
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 4 | + | + | + | + | M | + | + | M | + | + | + |
| | | | | | | 3 | 3 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 179

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 05068 - 10
Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | DAY ON TEST | | females
(cont...) |
|---|--|-------------|----------------------|
| | | 0 | 0 | | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 4 | 7 | 7 | 7 | 4 | 3 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 5 | 0 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | |
| | | 4 | 7 | 5 | 4 | 4 | 0 | 8 | 5 | 7 | 4 | 5 | 7 | 8 | 5 | 7 | 4 | 4 | 2 | 6 | 0 | 7 | 1 | 5 | 4 | 4 | |
| B6C3F1 MICE FEMALE | | | |
| 3000 PPM | | | |
| | | ANIMAL ID | |
| | | 0 | 0 | |
| | | 0 | 0 | |
| | | 4 | 4 | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | | 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 | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | | |
| Inflammation, Chronic Active | | | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | | |
| Inflammation, Chronic Active | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | | | | | |
| Epidermis, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fat, Subcutaneous Tissue, Atrophy | | | |
| Subcutaneous Tissue, Inflammation, Chronic Active | | 3 | |
| MUSCULOSKELETAL SYSTEM | | | |
| | | | |
| Bone | | + | + | | |
| Dysplasia | | | | | | | | 1 | | | | | | | | | | | | 1 | | | | | 1 | | |
| | | | |
| Skeletal Muscle | | | | | | | | + | | | | | | | | | | | | | | | | | | | |
| NERVOUS SYSTEM | | | |
| | | | |
| Brain | | + | + | | |
| Compression | | | |
| Mineralization | | 1 | | | 1 | 1 | | 1 | | | | | 1 | | 1 | | | | 1 | | | 1 | | | | | |
| RESPIRATORY SYSTEM | | | |
| | | | |
| Lung | | + | + | | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | | | | 1 | | 1 | 1 | | | 1 | 1 | | | | 1 | | | | | 1 | | | |

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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2) Mild 4) Marked

Page 180

TDMS No. 05068 - 10
Test Type: CHRONIC
Route: DOSED FEED
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
CODEINE
CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | |
|--------------------------------|-------------|-------------------|
| | DAY ON TEST | 0 | 0 | |
| | | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 0 | 7 | 4 | 7 | 7 | 7 | 4 | 3 | 7 | 7 | 7 | 7 | |
| | | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 5 | 0 | 3 | 5 | 3 | 3 | 2 | 3 | 3 | 9 | 3 | 3 | 3 |
| | | 4 | 7 | 5 | 4 | 4 | 0 | 8 | 5 | 7 | 4 | 5 | 7 | 8 | 5 | 7 | 4 | 4 | 2 | 6 | 0 | 7 | 1 | 5 | 4 |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 4 | 4 | |
| | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | females (cont...) | |

Alveolar Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | | 2 | | 2 | 2 | 2 | 2 | 2 | | | 3 | 2 | 1 | 2 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline | | | 2 | | | | | | | | | | 1 | | | 2 | | | | | | | | | |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | | 1 | | | | | | | | | | | | | |

| | | | | | | |
|---------|--|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
|---------|--|---|---|---|---|---|

SPECIAL SENSES SYSTEM

| |
|--------------------------------------|
| Eye |
| Inflammation, Chronic Active |
| Cornea, Inflammation, Chronic Active | |
| Harderian Gland |
| Inflammation, Chronic Active |

URINARY SYSTEM

| | | | | | | |
|----------------|--|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + |
| Atrophy | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | |
| Hydronephrosis | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | |

* .. 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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| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 5 |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 7 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3000 PPM | | | | | | | | | | |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|----|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 57 | |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 59 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 58 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 57 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 57 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 59 | |
| Hemorrhage | | | | | | | | | | | | 1 4.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 2.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 59 | |
| Angiectasis | | | | | | | 1 | | | | | 1 1.0 |
| Basophilic Focus | | | | | | | | | | | | 1 1.0 |
| Congestion | | | | | | | | | | | | 1 3.0 |
| Eosinophilic Focus | | | | | | | | | | | | 2 3.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | 3 1.7 |

* .. 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 183

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Lab: MBA

| | | | | | | | | | | | | |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|----------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 4 | 7 | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | * TOTALS |
| Infarct | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 6 1.0 |
| Mitotic Alteration | | | | | | | | | | | | 1 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | 2 3.5 |
| Kupffer Cell, Hypertrophy | | | | | | | | | | | | 1 4.0 |
| | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | 5 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 4.0 |
| Fat, Necrosis | | | | | | | | | | | | 2 3.0 |
| | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | 59 |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 3.5 |
| Acinar Cell, Atrophy | | | | | | | | | | | | 2 3.5 |
| Duct, Cyst | | | | | | | | | | | | 2 3.0 |
| | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | 59 |
| Inflammation, Chronic | | | | | | | | | | | | 27 1.1 |
| | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | 59 |
| Hyperplasia | | | | | | | | | | | | 1 3.0 |
| Inflammation, Acute | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 3 2.0 |
| | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | 58 |
| Cyst | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 6 1.2 |

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

Page 184

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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Lab: MBA

| | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE
3000 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 5 |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 7 |
| | <hr style="border-top: 1px dotted black;"/> | | | | | | | | | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| * TOTALS | | | | | | | | | | |

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 58 |
| Heart | + | + | + | + | + | + | + | + | + | + | 59 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 59 | |
| Angiectasis | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 3 3.3 |
| Subcapsular, Hyperplasia | 2 | | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | | 54 1.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | M | + | 57 | |
| Hyperplasia | 2 | | | | | | | | | | | 2 1.5 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 59 | |
| Parathyroid Gland | + | M | M | M | + | + | + | + | + | + | 42 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 55 | |
| Pars Distalis, Angiectasis | | | | | | | 2 | 2 | | | | 2 2.0 |
| Pars Distalis, Cyst | | | | | | | | | | | | 2 1.0 |
| Pars Distalis, Hyperplasia | 2 | | 2 | | | 3 | | | | | | 11 2.1 |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | 1 3.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 59 | |
| Inflammation, Chronic Active | | | | | | 1 | | 2 | | | | 4 1.3 |
| Follicle, Cyst | | | | 3 | | | | | | | | 3 2.7 |

* .. 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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1) Minimal 3) Moderate

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 |
| | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 |
| | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 4 | 7 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE
3000 PPM
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | * TOTALS |
| Follicular Cell, Hyperplasia, Focal | 1 | | 3 | 3 | | 1 | 2 | 1 | 2 | 45 1.9 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|--------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | 52 | |
| Dilatation | 2 | | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 47 2.3 |
| Inflammation, Chronic Active | 2 | | 1 | | | | | 1 | | | 10 1.4 |
| Pigmentation | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | 59 |
| Abscess | | | | | | | | | | | 3 4.0 |
| Cyst | | | | 3 | | | | | | | 7 2.6 |
| Inflammation, Chronic Active | | | | | | | | | | | 2 3.5 |
| Periovarian Tissue, Infiltration Cellular, Lymphocyte | | | | | | | | | | | 1 3.0 |
| | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | 1 |
| | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | 59 |
| Dilatation | | | | | | | | | | | 9 3.4 |
| Hyperplasia, Cystic | 3 | | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 1 | 46 2.2 |
| | | | | | | | | | | | |
| Vagina | | | | | | | | | | | 1 |

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

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x .. Lesion present

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M .. Missing tissue

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First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|----------|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 4 |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 5 |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 7 |
| | | | | | | | | | | |
| B6C3F1 MICE FEMALE | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3000 PPM | | | | | | | | | | |
| | | | | | | | | | | * TOTALS |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|----|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 59 | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Lymph Node | | | | + | | | | + | | | 9 | |
| Mediastinal, Hyperplasia, Plasma Cell | | | | | | | | | | | | 1 4.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | 56 | |
| Hyperplasia, Lymphoid | | | | | | 3 | | | | | | 4 2.8 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 57 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 58 | |
| Hematopoietic Cell Proliferation | | | | | | | 1 | | | | | 14 2.3 |
| Hyperplasia, Lymphoid | | | | | | 1 | | | | | | 3 1.7 |
| Pigmentation, Hemosiderin | | | | | | | | | | | | 1 2.0 |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | 1 3.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 51 | |
| Atrophy | | 4 | | | | | | | | | | 6 3.2 |
| Ectopic Parathyroid Gland | | | | | | | | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | 1 | 1 | | | | | | 5 1.0 |

INTEGUMENTARY SYSTEM

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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2) Mild 4) Marked

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Lab: MBA

| | | | | | | | | | | | | | |
|---|-------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| | DAY ON TEST | 0
7
3
4 | 0
0
0
8 | 0
7
3
5 | 0
7
4
7 | 0
4
5
7 | 0
7
3
4 | 0
7
3
4 | 0
7
3
4 | 0
7
3
4 | 0
4
5
7 | | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0
0
4
7
1 | 0
0
4
7
2 | 0
0
4
7
3 | 0
0
4
7
4 | 0
0
4
7
5 | 0
0
4
7
6 | 0
0
4
7
7 | 0
0
4
7
8 | 0
0
4
7
9 | 0
0
4
8
0 | | |
| | | | | | | | | | | | | * TOTALS | |
| | | Mammary Gland
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | 59
1 1.0 |
| | | Skin
Inflammation, Chronic Active
Epidermis, Hyperplasia
Fat, Subcutaneous Tissue, Atrophy
Subcutaneous Tissue, Inflammation,
Chronic Active | + | + | + | + | + | + | + | + | + | + | 59
5 1.6
1 1.0
1 3.0
1 3.0 |
| | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | |
| Bone
Dysplasia | | + | + | + | + | + | + | + | + | + | + | 59
6 1.3 | |
| Skeletal Muscle | | | | | | | | | | | | 1 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | |
| Brain
Compression
Mineralization | | + | + | + | + | + | + | + | + | + | + | 59
1 3.0
12 1.0 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | |
| Lung
Infiltration Cellular, Lymphocyte | | + | + | + | + | + | + | + | + | + | + | 59
24 1.0 | |

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

+ .. Tissue examined microscopically

x .. Lesion present

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M .. Missing tissue

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Time Report Reqsted: 11:43:53
First Dose M/F: 03/28/89 / 03/28/89
Lab: MBA

| | | | | | | | | | | | | | |
|--|-----------|---|---|---|---|---|---|---|---|---|----------|--------|-----|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| DAY ON TEST | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | | |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | | |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 4 | 7 | | |
| | | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| | | | | | | | | | | | * TOTALS | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | |
| Nose | | + | + | + | + | + | + | + | + | + | + | 59 | |
| Olfactory Epithelium, Degeneration, Hyaline | | | | 1 | 2 | 1 | 2 | 2 | | 1 | | 50 1.9 | |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | 1 | | | | 1 | | 8 1.5 | |
| Respiratory Epithelium, Inflammation, Chronic Active | | | | | | | | | | | | 1 1.0 | |
| | | | | | | | | | | | | | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | 59 | |
| | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | 3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 3.5 | |
| Cornea, Inflammation, Chronic Active | | | | | | | | | | | | 1 3.0 | |
| | | | | | | | | | | | | | |
| Harderian Gland | | | | | + | | | | | | | 3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 | |
| | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | 59 | |
| Atrophy | | | | | | | | | | | | 1 4.0 | |
| Hemorrhage | | | | | | | | | | | | 1 4.0 | |
| Hydronephrosis | | | | | | | | | | | | 1 1.0 | |
| Infarct | | | | | | | | | | | | 2 1.5 | |

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

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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TDMS No. 05068 - 10
 Test Type: CHRONIC
 Route: DOSED FEED
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 CODEINE
 CAS Number: 76-57-3

Date Report Reqsted: 06/07/2007
 Time Report Reqsted: 11:43:53
 First Dose M/F: 03/28/89 / 03/28/89
 Lab: MBA

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|-----------|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 7 | 0 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | |
| | | 3 | 0 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 5 | |
| | | 4 | 8 | 5 | 4 | 7 | 4 | 4 | 4 | 4 | 7 | |
| <hr/> | | | | | | | | | | | | |
| B6C3F1 MICE FEMALE
3000 PPM | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | * TOTALS |
| Inflammation, Chronic Nephropathy | | 1 | | 1 | | | | | | 1 | | 18 1.0 |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | 1 1.0 |
| Glomerulus, Inflammation, Chronic | | | | | | | | | | | | 1 2.0 |
| Perirenal Tissue, Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Degeneration, Hyaline | | | | | | | | | | | | 1 3.0 |
| Renal Tubule, Pigmentation | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Regeneration | | 1 | | | | 1 | | 1 | | | | 19 1.2 |
| <hr/> | | | | | | | | | | | | |
| Urinary Bladder | | + | | + | | + | | + | | + | | 59 |
| Infiltration Cellular, Lymphocyte | | | | 1 | | 2 | | 1 | | 2 | | 42 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 1.0 |

*** END OF REPORT ***