TDMS No. 20008 - 04 Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: MICE/B6C3F1

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH **AVERAGE SEVERITY GRADES[b]**

Milk thistle extract

CAS Number: 84604-20-6

F1_M3

C Number: C20008

Lock Date: 06/29/2006

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

TDMSE Version: 2.0.0 Date Report Requested: 09/30/2008

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice Natural Death	_	1	1	1	
Natural Death Survivors	5	3	6		
Terminal Sacrifice	45	46	43	49	
Animals Examined Microscopically	50	50	50	50	
Animals Examined Microscopically	30	30	30	30	
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(48)	(47)	(49)	(50)	
Edema	1 [2.0]		1 [2.0]		
Intestine Small, Ileum	(49)	(48)	(50)	(50)	
Epithelium, Hyperplasia	(15)	(12)	1 [2.0]	(==)	
Intestine Small, Jejunum	(49)	(49)	(46)	(50)	
Hyperplasia, Lymphoid			1 [1.0]		
Epithelium, Hyperplasia	(=0)	(50)	1 [2.0]	(50)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis	4	4	4	2 [2.5]	
Basophilic Focus	1 7	1	1	1	
Clear Cell Focus Cyst	1	3	3		
Eosinophilic Focus	2	1	1 [3.0] 4	1	
Hematopoietic Cell Proliferation	2 [3.5]	Į	4	ı	
Hepatodiaphragmatic Nodule	2 [3.5] 1				
Infiltration Cellular, Mixed Cell	1 [2.0]		1 [2.0]		
Mixed Cell Focus	10 [2.0]	7	۰ رح.۰۰	3	
Necrosis, Focal	2 [2.0]	3 [2.3]	5 [2.2]	C	
Necrosis, Diffuse	- [∼]	ر د.د.	1 [2.0]		
Thrombosis			1 [3.0]		
Centrilobular, Necrosis	1 [4.0]	2 [1.5]	1 [2.0]		
Hepatocyte, Vacuolization Cytoplasmic	7 [2.9]	4 [2.5]	1 [3.0]		
Mesentery	(2)	(3)	(3)	(3)	
Hemorrhage	` '	` '	` '	1 [4.0]	
Fat, Necrosis	1 [2.0]	2 [2.5]	2 [2.5]	1 [1.0]	
Pancreas	(49)	(49)	(49)	(50)	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract **CAS Number:** 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Basophilic Focus	1				
Cyst			1 [3.0]	1 [3.0]	
Acinus, Cytoplasmic Alteration	1 [3.0]	1 [3.0]	2 [3.5]	4 [3.0]	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy				1 [1.0]	
Infiltration Cellular, Lymphocyte	(50)	(50)	1 [3.0]	(50)	
Stomach, Forestomach Diverticulum	(50)	(50) 1	(50)	(50)	
Ulcer		1 [2.0]	1		
Epithelium, Hyperplasia		1 [1.0]		1 [1.0]	
Stomach, Glandular	(49)	(50)	(50)	(50)	
Erosion	2 [2.0]	1 [1.0]	1 [2.0]	,	
Ulcer				1 [3.0]	
Epithelium, Hyperplasia	1 [3.0]				
ARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	4 [1.5]	1 [2.0]	()	2 [1.0]	
Thrombosis	2 [3.0]				
Myocardium, Necrosis	1 [1.0]				
NDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	7 [3.0]	7 [3.0]	4 [3.0]	2 [3.0]	
Degeneration, Fatty				1 [1.0]	
Hyperplasia, Focal	4 [1.0]	8 [1.5]	6 [1.7]	8 [2.3]	
Hypertrophy, Focal Capsule, Hyperplasia	13 [1.5]	13 [1.5]	12 [1.7] 3 [2.0]	9 [1.9] 5 [1.8]	
Adrenal Medulla	2 [2.0] (49)	2 [2.0] (50)	3 [2.0] (49)	5 [1.6] (49)	
Hyperplasia	(40)	1 [1.0]	(40)	(40)	
Islets, Pancreatic	(49)	(49)	(49)	(50)	
Hyperplasia	1 [2.0]	1 [3.0]	, ,		
Parathyroid Gland	(50)	(50)	(50)	(50)	
Cyst	(40)	2 [3.0]	2 [3.0]	1 [3.0]	
Pituitary Gland	(48)	(48)	(47)	(50)	
Pars Distalis, Cyst Pars Distalis, Hyperplasia, Focal	2 [3.0] 2 [2.0]	3 [3.0]	2 [3.0] 1 [2.0]	3 [3.0]	
i ais Distalis, Hyperpiasia, Fucal	ک زک.0]		۱ [۷.۵]		

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: MICE/B6C3F1

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Thyroid Gland Follicle, Degeneration, Focal	(48) 6 [1.5]	(49) 11 [1.1]	(50) 3 [1.3]	(50) 6 [1.3]	
GENERAL BODY SYSTEM					
Tissue NOS	(0)	(0)	(0)	(1)	
GENITAL SYSTEM					
Epididymis Granuloma Sperm Preputial Gland Cyst Inflammation, Chronic Prostate Inflammation, Chronic Seminal Vesicle Degeneration Testes Germinal Epithelium, Atrophy Interstitial Cell, Hyperplasia	(50) (50) 19 [3.0] 12 [2.3] (50) (50) 1 [3.0] (50) 2 [1.5]	(50) 1 [3.0] (50) 28 [3.0] 12 [2.4] (50) (50) (50)	(50) (50) 26 [3.0] 17 [2.3] (50) 1 [3.0] (50) (50)	(50) 1 [3.0] (49) 20 [3.0] 14 [2.4] (50) (50) (50) 1 [4.0] 1 [3.0]	
HEMATOPOIETIC SYSTEM					
Bone Marrow Angiectasis Hyperplasia Lymph Node Mediastinal, Hematopoietic Cell Proliferation Mediastinal, Hyperplasia, Lymphoid Pancreatic, Fibrosis Pancreatic, Hematopoietic Cell	(49) 13 [2.2] (2) 1 [2.0] 1 [4.0] 1 [3.0] 1 [3.0]	(49) 14 [2.4] (1)	(49) 1 [3.0] 13 [2.0] (2)	(50) 17 [1.8] (0)	
Proliferation Pancreatic, Hyperplasia, Lymphoid Lymph Node, Mandibular Atrophy Hyperplasia, Lymphoid	1 [3.0] (48) 1 [3.0] 3 [2.3]	(45) 1 [3.0] 2 [3.5]	(49) 1 [2.0]	(47) 1 [2.0]	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 20008 - 04
Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: MICE/B6C3F1

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Date Report Requested: 09/30/2008

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

DCC2F4 MICE MALE	o DDM	40500 DDM	25000 DDM	50000 DDM	
B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Pigmentation			1 [3.0]	2 [3.0]	
Lymph Node, Mesenteric	(47)	(44)	(48)	(48)	
Atrophy	1 [3.0]	1 [2.0]	,	1 [2.0]	
Hematopoietic Cell Proliferation	2 [2.5]	3 [1.7]	2 [2.0]	1 [2.0]	
Hemorrhage		3 [2.3]	1 [1.0]	1 [1.0]	
Hyperplasia, Lymphoid	2 [3.0]	3 [2.3]	4 [2.3]	1 [2.0]	
Spleen	(50)	(50)	(49)	(50)	
Hematopoietic Cell Proliferation	16 [2.7]	11 [2.2]	12 [2.6]	4 [2.8]	
Necrosis	1 [2.0]	[]	[]	. [=]	
Lymphoid Follicle, Atrophy	1 [3.0]	1 [2.0]		2 [2.0]	
Lymphoid Follicle, Hyperplasia	2 [2.5]	. []	3 [2.7]	2 [2.5]	
Red Pulp, Atrophy	= [=.0]	1 [3.0]	ر ـ ر	_ [=.0]	
Thymus	(45)	(46)	(49)	(40)	
Atrophy	4 [2.5]	5 [3.2]	5 [3.0]	1 [3.0]	
Cyst	4 [3.0]	2 [3.0]	4 [3.0]	6 [3.0]	
ITEGUMENTARY SYSTEM					
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	(00)	(00)	1	(33)	
Edema	1 [3.0]		•		
Ulcer	1 [3.0]				
Epidermis, Hyperplasia	1 [3.0]				
	. [0.0]				
USCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(49)	
Fracture	1	` '	` '	,	
Necrosis		1 [2.0]			
Femur, Osteopetrosis				1 [3.0]	
Skeletal Muscle	(1)	(2)	(1)	(0)	
	. ,	. ,	. ,	. ,	
ERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Infiltration Cellular, Lymphoid	(/	(5-7)	1 [1.0]	(/	
Peripheral Nerve	(1)	(1)	(1)	(1)	
Atrophy	1 [2.0]	1 [1.0]	\ /	1 [1.0]	
: - I: - 7	. [1	. []		. []	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
RESPIRATORY SYSTEM					
Lung Edema	(50)	(50)	(50)	(50)	
Edema Foreign Body	2	1 [3.0]	1		
Hemorrhage	3 [2.3]	3 [1.3]	3 [1.3]	3 [1.3]	
Infiltration Cellular, Histiocyte	6 [3.5]	6 [3.3]	4 [2.8]	4 [2.8]	
Infiltration Cellular, Lymphocyte	1 [3.0]	2 [3.0]			
Inflammation, Chronic		1 [2.0]	1 [2.0]		
Thrombosis	0.10.01	-	1 [2.0]	1 [1.0]	
Alveolar Epithelium, Hyperplasia	2 [3.0]	7 [1.4]	3 [1.0]	5 [1.6]	
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	
Cataract		. ,	,	1 [3.0]	
Inflammation, Chronic	1 [2.0]				
Cornea, Hyperplasia	1 [2.0]	(=0)	(=0)	(50)	
Harderian Gland	(50) 3 [2.3]	(50) 2 [2.0]	(50)	(50) 1 [2.0]	
Hyperplasia, Focal	3 [2.3]	2 [2.0]		1 [2.0]	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	8 [3.0]	10 [3.0]	5 [3.0]	7 [3.0]	
Hydronephrosis	4 [0 5]	0.00	1 [2.0]	2 [4 5]	
Infarct Infiltration Cellular, Lymphocyte	4 [2.5] 3 [2.3]	3 [2.0] 2 [2.5]	3 [3.0]	2 [1.5]	
Metaplasia, Osseous	ა [೭.ა]	2 [2.5] 3 [1.7]	5 [3.0] 5 [1.8]		
Nephropathy	45 [1.2]	49 [1.3]	47 [1.0]	49 [1.0]	
Renal Tubule, Accumulation, Hyaline	1 [3.0]	- 1 - 1	r -1	- [-]	
Droplet					
Renal Tubule, Hyperplasia	5 [1.2]	1 [1.0]	1 [1.0]	4 [1.0]	
Renal Tubule, Necrosis		1 [1.0]		4 [0 0]	
Renal Tubule, Pigmentation Urinary Bladder	(FO)	(FO)	(40)	1 [2.0]	
Calculus Gross Observation	(50) 2	(50)	(49)	(50)	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 20008 - 04

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Date Report Requested: 09/30/2008

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Lab: SRI

B6C3F1 MICE MALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Dilatation Infiltration Cellular, Lymphocyte Transitional Epithelium, Hyperplasia	1 [2.0]		1 1 [2.0]		

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

Disposition Summary	BF1 MICE FEMALE
Early Deaths Accidently Killed 1 1 1 1 1 1 1 1 1	sition Summary
Accidently Killed 1 1 Moribund Sacrifice 3 2 2 3 3 2 2 3 3 3	
Moribund Sacrifice 3 2 2 3 Natural Death 7 5 6 1 Survivors Natural Death 1 1 1 Terminal Sacrifice 40 42 42 45 Animals Examined Microscopically 50 50 50 50 ALIMENTARY SYSTEM Intestine Large, Cecum (48) (48) (49) (50) Edema 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] 1 [2.0] 1 [2.0] Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] 1 [3.0] 1 [3.0] 1 [2.0] Intestine Small, Ileum (46) (49) (48) (49) 1 [2.0] Peyer's Patch, Necrosis 1 [2.0] 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] 2 [3.0] <td< td=""><td></td></td<>	
Natural Death Survivors 7 5 6 1 Natural Death Terminal Sacrifice 40 42 42 45 Animals Examined Microscopically 50 50 50 50 ALIMENTARY SYSTEM ALIMENTARY SYSTEM Intestine Large, Cecum (48) (48) (49) (50) Edema 1 [2.0] 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] 1 [2.0] 47) (47) (49) Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] 1 [3.0] 1 [3.0] Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] 1 [2.0] 1 [2.0] Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) Angiectasis <th< td=""><td>CCIDENTIY KIIIED</td></th<>	CCIDENTIY KIIIED
Natural Death	
Terminal Sacrifice	
ALIMENTARY SYSTEM Intestine Large, Cecum (48) (48) (49) (50) Edema 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] Liver (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus	
ALIMENTARY SYSTEM Intestine Large, Cecum (48) (48) (49) (50) Edema 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] Liver (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus	
Intestine Large, Cecum Edema 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] Intestine Small, Duodenum (49) Epithelium, Hyperplasia Intestine Small, Ileum (46) Peyer's Patch, Necrosis Intestine Small, Jejunum (49) Peyer's Patch, Inflammation, Suppurative Liver (50) Angiectasis Basophilic Focus (48) (49) (47) (47) (47) (47) (49) (49) (49) (49) (49) (49) (49) (49) (45) (48) (49) (49) (49) (50) (50) (50) (50)	nals Examined Microscopically
Edema 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] (47) (47) (49) Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] 1 [3.0] 1 [3.0] Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] (48) (49) Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] 2 [3.0] Basophilic Focus 1 1 1	NTARY SYSTEM
Edema 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 1 [3.0] (47) (47) (49) Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] 1 [3.0] (48) (49) Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] (48) (49) Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] 1 [3.0] 2 [3.0] Basophilic Focus 1 1 [3.0] 2 [3.0] 1 [3.0]	stine Large, Cecum
Intestine Small, Duodenum (49) (47) (47) (49) Epithelium, Hyperplasia 1 [3.0] Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] (45) (48) (49) Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1	ema
Epithelium, Hyperplasia 1 [3.0] Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] (49) (45) (48) (49) Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1	perplasia, Lymphoid
Intestine Small, Ileum (46) (49) (48) (49) Peyer's Patch, Necrosis 1 [2.0] 1 [2.0] Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1 1 1 1	
Peyer's Patch, Necrosis 1 [2.0] Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1 1 1 1	
Intestine Small, Jejunum (49) (45) (48) (49) Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1	
Peyer's Patch, Inflammation, Suppurative 1 [2.0] 1 [2.0] Liver (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1	
Liver (50) (50) (50) (50) (50) Angiectasis 1 [3.0] 2 [3.0] Basophilic Focus 1	
Basophilic Focus 1	i i
Clear Ceil Focus 1 1 1	
Hematopoietic Cell Proliferation 1 [3.0] 4 [2.3] 1 [3.0] 6 [2.3] Infiltration Cellular, Lymphocyte 2 [2.0] 1 [2.0]	
Infiltration Cellular, Mixed Cell 3 [1.7] 2 [1.5]	
Mixed Cell Focus 1 1 1	
Necrosis, Focal 3 [2.3] 1 [1.0]	
Necrosis, Diffuse 1 [2.0]	
Centrilobular, Necrosis 1 [4.0] 1 [2.0] 1 [3.0]	
Hepatocyte, Vacuolization Cytoplasmic 1 [3.0] 1 [3.0] 3 [3.0]	
Kupffer Cell, Hyperplasia 1 [2.0] 1 [3.0] 1 [3.0] 1 [3.0] Kupffer Cell, Pigmentation 1 [3.0] 1 [3.0]	
Mesentery (5) (2) (1) (3)	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: MICE/B6C3F1

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

B6C3F1 MICE FEMALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Fat, Necrosis	3 [3.3]	2 [2.5]		3 [3.0]	
Oral Mucosa	(0)	(0)	(1)	(0)	
Pancreas	(49)	(48)	(49)	(50)	
Atrophy	2 [4.0]	1 [4.0]	1 [4.0]	1 [2.0]	
Cyst	2 [3.5]	. [•]	1 [3.0]	1 [4.0]	
Acinus, Cytoplasmic Alteration	2 [3.0]	3 [3.3]	1 [3.0]	2 [3.0]	
Duct, Hyperplasia	2 [0.0]	0 [0.0]	. [0.0]	1 [4.0]	
Salivary Glands	(50)	(50)	(49)	(50)	
Atrophy	(00)	(88)	(10)	2 [1.5]	
Infiltration Cellular, Lymphocyte	7 [2.7]	8 [2.5]	8 [2.8]	4 [2.8]	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Diverticulum	(30)	1	(30)	(30)	
Erosion		'		1 [2.0]	
Epithelium, Hyperplasia	2 [2.0]	2 [1.5]	3 [1.3]	1 [2.0]	
Stomach, Glandular	(50)	(48)	(50)	(50)	
Cyst	4 [3.0]	4 [3.0]	2 [3.0]	4 [3.0]	
Erosion	2 [2.0]	1 [2.0]	2 [3.0]	1 [3.0]	
Epithelium, Hyperplasia	2 [2.0] 1 [2.0]	1 [1.0]		1 [3.0]	
Epitilelium, riyperplasia	1 [2.0]	1 [1.0]			
CARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	,	1 [2.0]	,	,	
Mineralization	1 [2.0]	2 [1.5]			
Artery, Inflammation, Chronic Active	1	1 [3.0]			
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	5 [3.0]	6 [3.0]	7 [3.0]	7 [3.0]	
Cyst	ა [ა.ს]	ง [3.0] 1	r [3.0]	r [3.0]	
Hypertrophy, Focal		I		2 [1.0]	
Capsule, Hyperplasia	2 [1.5]			2 [1.0]	
Adrenal Medulla	(49)	(49)	(50)	(50)	
Hyperplasia	2 [2.0]	3 [1.0]	(30)	(50) 1 [2.0]	
Islets, Pancreatic	2 [2.0] (49)		(40)	(50)	
Parathyroid Gland	(48)	(48) (48)	(49) (48)	(48)	
Cyst			(40)		
Hyperplasia	1 [3.0]	1 [3.0] 1 [3.0]		1 [3.0]	
ι ιγρειριαδια		າ [ວ.ບ]			

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

B6C3F1 MICE FEMALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Pituitary Gland	(49)	(49)	(48)	(48)	
Pars Distalis, Angiectasis		1 [2.0]	0.10.01	1 [2.0]	
Pars Distalis, Cyst Pars Distalis, Hyperplasia, Focal	5 [1.6]	3 [3.0] 1 [1.0]	2 [3.0] 1 [1.0]	5 [1.8]	
Pars Intermedia, Hyperplasia	3 [1.0]	1 [1.0]	1 [3.0]	3 [1.0]	
Thyroid Gland	(50)	(48)	(49)	(50)	
Ectopic Thymus		1 [3.0]			
Ultimobranchial Cyst	4 [0 0]			1 [3.0]	
Follicle, Cyst Follicle, Degeneration, Focal	1 [3.0] 25 [1.9]	19 [2.0]	20 [1.5]	1 [3.0] 13 [1.9]	
Follicular Cell, Hyperplasia	25 [1.9]	19 [2.0]	20 [1.0]	3 [1.7]	
ENERAL BODY SYSTEM					
Tissue NOS	(0)	(1)	(0)	(1)	
SENITAL SYSTEM					
Clitoral Gland	(47)	(47)	(49)	(47)	
Cyst	(/	()	(- /	1 [3.0]	
Inflammation, Chronic		3 [2.0]		2 [2.0]	
Ovary	(46)	(50)	(48)	(49)	
Angiectasis	1 [3.0]	3 [2.3]	3 [3.0]	4 [2.5]	
Cyst	16 [3.0]	10 [3.0]	19 [3.0]	19 [3.1]	
Hemorrhage Corpus Luteum, Hyperplasia	8 [2.1]	12 [2.2] 1 [2.0]	10 [2.0]	10 [2.3] 1 [3.0]	
Interstitial Cell, Hyperplasia		1 [2.0] 1 [3.0]	1 [3.0]	2 [2.0]	
Thecal Cell, Hyperplasia	1 [2.0]	1 [0.0]	1 [0.0]	1 [3.0]	
Uterus	(50)	(50)	(50)	(50)	
Angiectasis	1 [2.0]	3 [2.7]	(/	6 [2.7]	
Hyperplasia, Cystic	47 [2.9]	46 [2.8]	46 [2.8]	44 [2.7]	
Inflammation, Chronic		2 [3.5]	2 [2.0]	1 [3.0]	
Metaplasia, Squamous			2 [2.5]	2 [3.0]	
EMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	18 [2.5]	21 [2.7]	24 [2.8]	18 [2.6]	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 20008 - 04

Test Type: CHRONIC

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Lab: SRI

Species/Strain: MICE/B6C3F1

B6C3F1 MICE FEMALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Hyperplasia, Neutrophil	1 [4.0]				
Myelofibrosis	1		1 [1.0]		
Lymph Node	(10)	(4)	(6)	(4)	
Hematopoietic Cell Proliferation	,	()	1 [3.0]	()	
Deep Cervical, Hemorrhage	1 [3.0]				
Deep Cervical, Pigmentation	1 [2.0]				
Iliac, Hematopoietic Cell Proliferation	1 [4.0]		1 [3.0]	1 [2.0]	
Iliac, Hyperplasia, Lymphoid	1	1 [3.0]	3 [2.7]	1 [3.0]	
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]			[]	
Renal, Hematopoietic Cell Proliferation	f 1		1 [3.0]		
Renal, Hyperplasia, Lymphoid		1 [3.0]	3 [1.7]		
Lymph Node, Mandibular	(48)	(49)	(46)	(47)	
Angiectasis	(- /	1 [2.0]	\ -/	,	
Atrophy	1 [2.0]	,	1 [3.0]		
Ectasia	2 [3.0]		11		
Hematopoietic Cell Proliferation	1 [3.0]		1 [2.0]	1 [2.0]	
Hemorrhage	1 [1.0]				
Hyperplasia, Lymphoid	4 [2.3]	3 [2.7]	1 [3.0]	3 [2.3]	
Pigmentation	2 [3.0]	4 [3.0]	1 [3.0]	7 [3.0]	
Lymph Node, Mesenteric	(49)	(47)	(49)	(50)	
Atrophy	2 [2.0]	,	1 [2.0]	2 [2.5]	
Ectasia	1	1 [3.0]	1 [3.0]	,	
Hematopoietic Cell Proliferation	2 [2.5]	2 [2.0]	. []		
Hemorrhage	1 [4.0]	,			
Hyperplasia, Lymphoid	3 [3.0]	5 [2.4]	2 [2.0]	1 [3.0]	
Spleen	(50)	(48)	(49)	(50)	
Fibrosis	\ -/	\ -/	1 [3.0]	,	
Hematopoietic Cell Proliferation	20 [2.1]	17 [2.1]	17 [2.3]	11 [2.7]	
Hemorrhage	1 [4.0]				
Hyperplasia, Lymphoid		1 [2.0]			
Necrosis	1 [4.0]				
Lymphoid Follicle, Atrophy	1 [3.0]		1 [3.0]		
Lymphoid Follicle, Hyperplasia	6 [2.3]	9 [2.6]	8 [2.3]	6 [2.2]	
Thymus	(49)	(47)	(46)	(49)	
Angiectasis	` '	1 [2.0]	` '	,	
Atrophy	6 [2.8]	1 [2.0]	5 [3.0]	3 [2.7]	
Hyperplasia, Lymphoid	9 [1.9]	5 [1.6]	6 [1.8]		

INTEGUMENTARY SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: MICE/B6C3F1

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

B6C3F1 MICE FEMALE	0 PPM	12500 PPM	25000 PPM	50000 PPM	
Mammary Gland	(50)	(50)	(50)	(50)	
Hyperplasia Necrosis	5 [2.2]	5 [1.8]	5 [1.2]	4 [1.8]	
Skin	1 [4.0] (50)	(50)	(50)	(50)	
Edema	2 [2.5]	(50)	1 [3.0]	1 [2.0]	
Hyperkeratosis	2 [2.0]		1 [2.0]	1 [2.0]	
Inflammation, Chronic			1 [2.0]	1 [1.0]	
Epidermis, Hyperplasia			1 [3.0]	. [0]	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	8 [1.4]	15 [1.1]	19 [1.4]	17 [1.7]	
Fibrosis		1 [1.0]			
Fracture			1	1	
Skeletal Muscle	(3)	(2)	(0)	(3)	
Atrophy	1 [2.0]				
Inflammation, Acute	1 [3.0]				
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression	1 [4.0]	` '	,	1 [2.0]	
Hemorrhage	1 [3.0]				
Necrosis	1 [3.0]				
Peripheral Nerve	(3)	(0)	(0)	(0)	
Atrophy	1 [2.0]				
Spinal Cord	(3)	(0)	(0)	(0)	
Hemorrhage	1 [3.0]				
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Edema	1 [2.0]				
Hemorrhage	2 [1.0]	4 [1.5]	2 [2.5]	7 [1.7]	
Infiltration Cellular, Histiocyte	1 [4.0]	4 [3.8]	1 [2.0]	1 [2.0]	
Infiltration Cellular, Lymphocyte	3 [2.3]	1 [3.0]	6 [2.5]	5 [2.2]	
Infiltration Cellular, Polymorphonuclear	1 [3.0]				

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 20008 - 04

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: DOSED FEED

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Date Report Requested: 09/30/2008

Inflammation, Chronic 2 [2.0] Thrombosis 1 [2.0] Alveolar Epithelium, Hyperplasia 1 [1.0] 3 [1.7] 3 [1.7] 1 [1.0] Arteriole, Hypertrophy 1 [1.0] Nose (50) (50) (50) (50) Inflammation, Chronic 2 [2.0] 1 [1.0]
Alveolar Epithelium, Hyperplasia 1 [1.0] 3 [1.7] 3 [1.7] 1 [1.0] Arteriole, Hypertrophy 1 [1.0] Nose (50) (50) (50) (50)
Arteriole, Hypertrophy 1 [1.0] Nose (50) (50) (50) (50)
Nose (50) (50) (50) (50)
Inflammation Chronic 2 [2 0] 1 [1 0]
SPECIAL SENSES SYSTEM
Eye (50) (50) (50)
Cataract 1 [3.0] 1 [3.0]
Inflammation, Chronic 1 [1.0] 2 [3.0]
Cornea, Hyperplasia 1 [1.0] 2 [3.0] Retina, Degeneration 1 [4.0]
Harderian Gland (50) (50) (50) (50)
Hyperplasia, Focal 1 [1.0]
URINARY SYSTEM
Kidney (50) (49) (50)
Cyst 1 [3.0] 1 [3.0] 1 [3.0]
Hyperplasia, Lymphoid 1 [2.0]
Infarct 2 [2.0]
Infiltration Cellular, Lymphocyte 4 [2.5] 2 [2.0] 2 [3.0] 11 [2.9] Metaplasia, Osseous 4 [1.3] 3 [1.0]
Mineralization 4 [1.3] 1 [2.0]
Nephropathy 10 [1.3] 7 [1.3] 13 [1.2] 10 [1.0]
Renal Tubule, Accumulation, Hyaline 2 [2.0] 1 [3.0] 1 [3.0]
Droplet
Renal Tubule, Dilatation, Diffuse 1 [2.0]
Renal Tubule, Necrosis 2 [2.5]
Renal Tubule, Pigmentation 1 [1.0] Urinary Bladder (50) (50) (50) (50)
Edema (50) (50) (50) (50)
Infiltration Cellular, Lymphocyte 2 [3.0] 3 [2.7] 5 [2.4] 3 [3.0]

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 20008 - 04
Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: MICE/B6C3F1

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Milk thistle extract

CAS Number: 84604-20-6

Date Report Requested: 09/30/2008

Time Report Requested: 13:13:48 First Dose M/F: 03/25/03 / 03/25/03

Lab: SRI

B6C3F1 MICE FEMALE 0 PPM 12500 PPM 25000 PPM 50000 PPM

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)