TDMS No. 20007 - 06 Test Type: CHRONIC Route: GAVAGE

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Kava kava extract

Species/Strain: MICE/B6C3F1

CAS Number: 9000-38-8

First Dose M/F: 08/24/04 / 08/23/04 Lab: BAT

Date Report Requested: 04/13/2009

Time Report Requested: 10:57:30

F_M3

C Number: C20007

Lock Date: 05/10/2007

Cage Range: ALL

Date Range: ALL

ALL **Reasons For Removal:**

Removal Date Range: ALL

Include ALL **Treatment Groups:**

Study Gender: Both

TDMSE Version: 2.1.0

Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice	3	10	10	7	
Natural Death	13	7	5	7	
Survivors					
Moribund Sacrifice			1		
Natural Death	1	00	0.4	00	
Terminal Sacrifice	33	33	34	36	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
	(40)	(50)	(40)	(47)	
Gallbladder	(49)	(50)	(49)	(47)	
Infiltration Cellular, Mononuclear Cell	1 (2%)		1 (2%)	1 (2%)	
Inflammation, Granulomatous	(50)	(FO)	1 (2%)	(50)	
Intestine Large, Cecum	(50)	(50)	(50)	(50)	
Amyloid Deposition	1 (2%)				
Serosa, Inflammation, Granulomatous Intestine Small, Duodenum	1 (2%)	(50)	(50)	(50)	
Intestine Small, Duodenum Intestine Small, Ileum	(50) (50)	(50) (50)	(50) (50)	(50) (50)	
Inflammation, Chronic	(50) 1 (2%)	(50)		(50)	
	1 (2%)		1 (2%)		
Epithelium, Hyperplasia Intestine Small, Jejunum		(50)	(50)	(50)	
Epithelium, Hyperplasia	(50)		(50)	(50)	
Peyer's Patch, Hyperplasia, Lymphoid		2 (4%)	1 (2%)	1 (2%)	
Liver	(50)	(50)	(50)	(50)	
Amyloid Deposition	(30)	(30)	1 (2%)	1 (2%)	
Angiectasis	3 (6%)	6 (12%)	7 (14%)	10 (20%)	
Basophilic Focus	2 (4%)	3 (6%)	3 (6%)	1 (2%)	
Clear Cell Focus	18 (36%)	18 (36%)	19 (38%)	21 (42%)	
Degeneration, Cystic	1 (2%)	10 (30 %)	1 (2%)	1 (2%)	
Eosinophilic Focus	28 (56%)	32 (64%)	42 (84%)	43 (86%)	
Fatty Change	32 (64%)	34 (68%)	27 (54%)	24 (48%)	
Fibrosis	1 (2%)	J- (00 /0)	21 (3470)	27 (70/0)	
Hematopoietic Cell Proliferation	1 (2%)	2 (4%)		1 (2%)	
Hepatodiaphragmatic Nodule	1 (2/0)	2 (470)	1 (2%)	1 (2/0)	
Infarct		1 (2%)	2 (4%)		
Infiltration Cellular, Mononuclear Cell	49 (98%)	47 (94%)	47 (94%)	48 (96%)	
Inflammation, Suppurative	40 (0070)	47 (0470)	47 (0470)	1 (2%)	
Mineralization	1 (2%)	2 (4%)	2 (4%)	1 (2%)	
Mixed Cell Feete	1 (2/0)	20 (560/)	2 (470) 15 (200/)	10 (240/)	

15 (30%)

TDMS No. 20007 - 06

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Mixed Cell Focus

Route: GAVAGE

15 (30%)

12 (24%)

28 (56%)

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

TDMS No. 20007 - 06
Test Type: CHRONIC

Route: GAVAGE

Species/Strain: MICE/B6C3F1

Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Necrosis Tension Lipidosis	3 (6%)	10 (20%)	7 (14%) 3 (6%)	13 (26%)	
Vacuolization Cytoplasmic Bile Duct, Cyst	5 (10%)	2 (4%) 1 (2%)	3 (6%)	2 (4%) 1 (2%) 1 (2%)	
Centrilobular, Fatty Change Centrilobular, Hypertrophy	(2)	1 (2%) 34 (68%)	30 (60%)	1 (2%) 39 (78%)	
Mesentery Inflammation, Chronic	(3) 1 (33%)	(6)	(2)	(3)	
Fat, Necrosis Pancreas Inflammation, Granulomatous Inflammation, Chronic Acinus, Atrophy	2 (67%) (50) 1 (2%)	6 (100%) (50)	2 (100%) (50) 1 (2%) 1 (2%) 1 (2%)	3 (100%) (50)	
Acinus, Hypertrophy Duct, Cyst	2 (4%)		. (= /0)	1 (2%)	
Salivary Glands Infiltration Cellular, Mononuclear Cell Parotid Gland, Atrophy	(50) 43 (86%) 1 (2%)	(50) 36 (72%)	(50) 40 (80%)	(50) 36 (72%)	
Parotid Gland, Hyperplasia Parotid Gland, Mineralization Submandibular Gland, Atrophy		1 (2%) 1 (2%)	1 (2%)		
Stomach, Forestomach Inflammation, Chronic Mineralization	(50) 19 (38%)	(50) 22 (44%)	(50) 24 (48%) 1 (2%)	(50) 24 (48%)	
Necrosis Epithelium, Hyperplasia Stomach, Glandular	8 (16%) 18 (36%) (50)	11 (22%) 22 (44%) (50)	12 (24%) 25 (50%) (50)	10 (20%) 22 (44%) (50)	
Infiltration Cellular, Mononuclear Cell Mineralization Ulcer	2 (4%) 1 (2%)	1 (2%)	2 (4%)	1 (2%)	
Epithelium, Hyperplasia Glands, Ectasia Tooth	2 (4%) 2 (4%) (33)	1 (2%) (32)	2 (4%) (27)	2 (4%) (21)	
Dysplasia Inflammation, Suppurative	33 (100%)	32 (100%) 1 (3%)	27 (100%)	21 (100%)	
RDIOVASCULAR SYSTEM					
Heart Cardiomyopathy Inflammation, Suppurative	(50) 14 (28%)	(50) 16 (32%) 1 (2%)	(50) 11 (22%)	(50) 14 (28%) 1 (2%)	
Inflammation, Chronic Artery, Infiltration Cellular, Mononuclear Cell Myocardium, Mineralization Valve, Inflammation	2 (4%) 1 (2%)	1 (2%) 1 (2%) 4 (8%)	1 (2%)	1 (2%) 1 (2%) 1 (2%)	

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

Test Type: CHRONIC
Route: GAVAGE

TDMS No. 20007 - 06

Species/Strain: MICE/B6C3F1

Kava kava extract **CAS Number:** 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
ENDOCRINE SYSTEM					
Adrenal Cortex Hypertrophy Infiltration Cellular, Mononuclear Cell	(50) 1 (2%) 1 (2%)	(50) 2 (4%)	(50)	(50) 2 (4%)	
Vacuolization Cytoplasmic	2 (4%)	2 (4%)	2 (4%)	3 (6%)	
Subcapsular, Hyperplasia	44 (88%)	45 (90%)	48 (96%)	49 (98%)	
Zona Reticularis, Hyperplasia Adrenal Medulla	5 (10%)	3 (6%) (50)	2 (4%)	4 (8%)	
Hyperplasia	(50) 1 (2%)	(50)	1 (2%)	(50)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia	37 (74%)	35 (70%)	36 (72%)	33 (66%)	
Parathyroid Gland Cyst	(47) 1 (2%)	(44) 1 (2%)	(46)	(44) 1 (2%)	
Infiltration Cellular, Mononuclear Cell	1 (2%)	1 (270)		. (273)	
Pituitary Gland	(49)	(50)	(50)	(50)	
Cyst Pars Distalis, Hyperplasia	1 (2%) 1 (2%)		1 (2%) 1 (2%)	2 (4%)	
Thyroid Gland	(50)	(50)	(49)	(50)	
Atrophy	1 (2%)	,	, ,	,	
Cyst Follicle, Hyperplasia	4 (8%) 1 (2%)		1 (2%) 1 (2%)		
GENERAL BODY SYSTEM					
Peritoneum	(0)	(0)	(0)	(2)	
Inflammation, Chronic	(-)	(-/	(=/	2 (100%)	
GENITAL SYSTEM					
Coagulating Gland	(0)	(1)	(1)	(0)	
Hyperplasia Epididymis	(50)	1 (100%)	(FO)	(50)	
Epididymis Granuloma Sperm	(50) 2 (4%)	(50)	(50) 3 (6%)	(50) 1 (2%)	
Infiltration Cellular, Mononuclear Cell	29 (58%)	22 (44%)	33 (66%)	28 (56%)	
Inflammation, Chronic	(0)	1 (2%)	(0)	(0)	
Penis Infiltration Cellular, Polymorphonuclear	(0)	(1) 1 (100%)	(0)	(0)	
Preputial Gland	(50)	(50)	(50)	(50)	
Cyst	4 (8%)	5 (10%)	5 (10%)	3 (6%)	
Inflammation Prostate	10 (20%) (50)	4 (8%) (50)	9 (18%) (50)	13 (26%) (50)	

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

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Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Atrophy				1 (2%)	
Fibrosis			1 (2%)		
Hyperplasia	1 (2%)			1 (2%)	
Infiltration Cellular, Mononuclear Cell	29 (58%)	31 (62%)	38 (76%)	29 (58%)	
Inflammation	4 (8%)	9 (18%)	4 (8%)	2 (4%)	
Mineralization		1 (2%)			
Seminal Vesicle	(50)	(50)	(50)	(50)	
Atrophy	, ,	` '	, ,	1 (2%)	
Fibrosis	2 (4%)			(,	
Hyperplasia	= (. , , ,			1 (2%)	
Infiltration Cellular, Mononuclear Cell	4 (8%)	4 (8%)	6 (12%)	(=,=)	
Inflammation	6 (12%)	5 (10%)	0 (1270)	2 (4%)	
Testes	(50)	(50)	(50)	(50)	
Inflammation	1 (2%)	(66)	(00)	(00)	
Mineralization	1 (2%)				
Germinal Epithelium, Atrophy	2 (4%)	4 (8%)	1 (2%)	1 (2%)	
Germinal Epithelium, Attopriy	2 (470)	4 (070)	1 (270)	1 (270)	
EMATOPOIETIC SYSTEM Bone Marrow	(50)	(50)	(50)	(50)	
Lymph Node	(0)	(1)	(3)	(3)	
Renal, Hyperplasia, Lymphoid			1 (33%)		
Lymph Node, Mandibular	(50)	(50)	(50)	(49)	
Hyperplasia, Lymphoid		3 (6%)	2 (4%)	1 (2%)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(49)	
	. (55.)				
Atrophy	1 (2%)				
	1 (2%)	1 (2%)	2 (4%)		
Atrophy		1 (2%) (50)	2 (4%) (49)	(50)	
Atrophy Hyperplasia, Lymphoid Spleen	1 (2%) (50)		(49)	(50)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis	(50)	(50)	(49) ´ 1 (2%)	, ,	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation	(50) 16 (32%)	(50) 19 (38%)	(49) 1 (2%) 21 (43%)	15 (30%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid	(50) 16 (32%) 3 (6%)	(50) 19 (38%) 3 (6%)	(49) 1 (2%) 21 (43%) 2 (4%)	15 (30%) 3 (6%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy	(50) 16 (32%) 3 (6%) 6 (12%)	(50) 19 (38%) 3 (6%) 5 (10%)	(49) / 1 (2%) 21 (43%) 2 (4%) 3 (6%)	15 (30%) 3 (6%) 6 (12%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus	(50) 16 (32%) 3 (6%) 6 (12%) (48)	(50) 19 (38%) 3 (6%) 5 (10%) (47)	(49) / 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47)	15 (30%) 3 (6%) 6 (12%) (49)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy	(50) 16 (32%) 3 (6%) 6 (12%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%)	(49) / 1 (2%) 21 (43%) 2 (4%) 3 (6%)	15 (30%) 3 (6%) 6 (12%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%)	(49) / 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47)	15 (30%) 3 (6%) 6 (12%) (49)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic	(50) 16 (32%) 3 (6%) 6 (12%) (48)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%)	(49) ' 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47) 46 (98%)	15 (30%) 3 (6%) 6 (12%) (49)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%)	(49) / 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47)	15 (30%) 3 (6%) 6 (12%) (49) 43 (88%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte Inflammation, Chronic Active	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%) 1 (2%)	(49) ' 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47) 46 (98%)	15 (30%) 3 (6%) 6 (12%) (49) 43 (88%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%)	(49) ' 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47) 46 (98%)	15 (30%) 3 (6%) 6 (12%) (49) 43 (88%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte Inflammation, Chronic Active	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%) 1 (2%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%) 1 (2%)	(49) ' 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47) 46 (98%)	15 (30%) 3 (6%) 6 (12%) (49) 43 (88%)	
Atrophy Hyperplasia, Lymphoid Spleen Angiectasis Hematopoietic Cell Proliferation Hyperplasia, Lymphoid Lymphoid Follicle, Atrophy Thymus Atrophy Ectopic Thyroid Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte Inflammation, Chronic Active Epithelial Cell, Hyperplasia	(50) 16 (32%) 3 (6%) 6 (12%) (48) 41 (85%)	(50) 19 (38%) 3 (6%) 5 (10%) (47) 41 (87%) 1 (2%) 1 (2%)	(49) ' 1 (2%) 21 (43%) 2 (4%) 3 (6%) (47) 46 (98%)	15 (30%) 3 (6%) 6 (12%) (49) 43 (88%)	

TDMS No. 20007 - 06 Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

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

TDMS No. 20007 - 06 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

Kava kava extract **CAS Number:** 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Hemorrhage Inflammation, Chronic Ulcer	1 (2%) 1 (2%)	1 (2%) 1 (2%)	9 (18%)	1 (2%) 1 (2%) 4 (8%)	
MUSCULOSKELETAL SYSTEM					
Bone Cranium, Hyperostosis Skeletal Muscle	(50) 1 (2%) (2)	(50) (0)	(50) (1)	(50) (0)	
NERVOUS SYSTEM					
Brain Hemorrhage Hypothalamus, Compression	(50)	(50) 1 (2%)	(50) 1 (2%)	(50)	
RESPIRATORY SYSTEM					
Lung Inflammation Metaplasia, Osseous Mineralization	(50)	(50) 2 (4%)	(50) 3 (6%) 1 (2%) 2 (4%)	(50) 2 (4%)	
Alveolar Epithelium, Hyperplasia Alveolus, Infiltration Cellular, Histiocyte Bronchus, Hyperplasia Bronchus, Infiltration Cellular, Histiocyte	2 (4%) 2 (4%) 2 (4%)	3 (6%) 6 (12%) 2 (4%)	1 (2%) 5 (10%) 1 (2%)	2 (4%) 1 (2%) 1 (2%)	
Nose Inflammation, Suppurative Inflammation, Chronic Polyp, Inflammatory Nasolacrimal Duct, Inflammation, Suppurative	(50) 1 (2%) 9 (18%) 1 (2%)	(50) 1 (2%) 8 (16%) 2 (4%) 2 (4%)	(50) 4 (8%) 7 (14%) 2 (4%)	(50) 1 (2%) 5 (10%) 1 (2%) 3 (6%)	
Respiratory Epithelium, Hyperplasia Trachea Inflammation, Chronic Epithelium, Cytoplasmic Alteration	1 (2%) (50)	(50) 1 (2%)	1 (2%) (50) 1 (2%) 1 (2%)	(50)	
SPECIAL SENSES SYSTEM					
Eye Degeneration Anterior Chamber, Inflammation, Suppurative	(50)	(50) 1 (2%)	(50)	(50) 1 (2%)	
Cornea, Inflammation, Chronic		1 (2%)	1 (2%)	2 (4%)	

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

TDMS No. 20007 - 06 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Retrobulbar, Inflammation, Chronic Harderian Gland	(50)	(50)	(50)	1 (2%) (50)	
Fibrosis Hyperplasia Infiltration Cellular, Mononuclear Cell Inflammation, Granulomatous	1 (2%) 4 (8%) 36 (72%)	3 (6%) 30 (60%)	1 (2%) 34 (68%) 1 (2%)	8 (16%) 39 (78%)	
RINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Amyloid Deposition	- 4		1 (2%)		
Hydronephrosis	6 (12%)	1 (2%)		1 (2%)	
Inflammation	2 (4%)	2 (4%)	1 (2%)	1 (2%)	
Metaplasia, Osseous		2 (4%)		2 (4%)	
Mineralization	3 (6%)	1 (2%)			
Nephropathy	32 (64%)	40 (80%)	37 (74%)	38 (76%)	
Thrombosis		1 (2%)			
Cortex, Medulla, Necrosis	6 (12%)				
Papilla, Necrosis	3 (6%)			3 (6%)	
Renal Tubule, Cyst			3 (6%)		
Renal Tubule, Dilatation		1 (2%)			
Renal Tubule, Hyperplasia	6 (12%)	20 (40%)	13 (26%)	10 (20%)	
Renal Tubule, Mineralization	31 (62%)	42 (84%)	38 (76%)	31 (62%)	
Renal Tubule, Pigmentation, Lipofuscin	1 (2%)		1 (2%)	2 (4%)	
Urethra	(2)	(4)	(0)	(1)	
Cyst		1 (25%)			
Inflammation	2 (100%)	4 (100%)		1 (100%)	
Necrosis				1 (100%)	
Urinary Bladder	(50)	(50)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell	20 (40%)	25 (50%)	26 (52%)	20 (40%)	
Inflammation	4 (8%)	2 (4%)	• •	, ,	
Transitional Epithelium, Cytoplasmic Alteration	, ,	, ,		1 (2%)	
Transitional Epithelium, Hyperplasia		1 (2%)		, ,	

^{***} END OF MALE ***

Kava kava extract **CAS Number:** 9000-38-8

First Dose M/F: 08/24/04 / 08/23/04

Lab: BAT

Date Report Requested: 04/13/2009

Time Report Requested: 10:57:30

Species/Strain: MICE/B6C3F1

TDMS No. 20007 - 06 Test Type: CHRONIC

Route: GAVAGE

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths	_			
Accidently Killed	1		4	1
Moribund Sacrifice Natural Death	4 7	4 12	1 4	7 5
Survivors	,	12	4	Э
Terminal Sacrifice	38	34	45	37
Animals Examined Microscopically	50	50	50	50
,				
LIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Inflammation, Chronic	,	1 (2%)	, ,	
Gallbladder	(50)	(48)	(49)	(50)
Cyst	1 (2%)	1 (2%)		1 (2%)
Epithelium, Cytoplasmic Alteration				1 (2%)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation, Chronic	1 (2%)			
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Metaplasia, Squamous			4 (00()	1 (2%)
Epithelium, Hyperplasia	(50)	(50)	1 (2%)	(50)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Inflammation, Chronic Active Ulcer			1 (2%) 1 (2%)	
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Epithelium, Hyperplasia	(50)	(50)	(50)	(50) 1 (2%)
Peyer's Patch, Hyperplasia			1 (2%)	I (470)
Liver	(50)	(50)	(50)	(50)
Angiectasis	3 (6%)	(50)	2 (4%)	(50)
Basophilic Focus	3 (070)	1 (2%)	4 (8%)	1 (2%)
Clear Cell Focus	3 (6%)	. (270)	1 (2%)	5 (10%)
Cyst	- (3,3)		1 (2%)	- (.0,0)
Eosinophilic Focus	9 (18%)	7 (14%)	16 (32%)	26 (52%)
Fatty Change	39 (78%)	33 (66%)	42 (84%)	23 (46%)
Hematopoietic Cell Proliferation	1 (2%)	4 (8%)	4 (8%)	1 (2%)
Infiltration Cellular, Mononuclear Cell	45 (90%)	47 (94%)	49 (98%)	44 (88%)
Mixed Cell Focus	12 (24%)	13 (26%)	14 (28%)	7 (14%)
Necrosis	5 (10%)	4 (8%)	5 (10%)	1 (2%)
Tension Lipidosis	3 (6%)	8 (16%)	7 (14%)	4 (8%)
Vacuolization Cytoplasmic				1 (2%)
Centrilobular, Hypertrophy		20 (40%)	48 (96%)	49 (98%)

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

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Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
	(2)			4-2	
Mesentery	(8)	(10)	(5)	(6)	
Fat, Necrosis	8 (100%)	10 (100%)	5 (100%)	6 (100%)	
Pancreas	(49)	(50)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell				1 (2%)	
Inflammation, Chronic	2 (4%)				
Acinus, Atrophy			1 (2%)		
Acinus, Hypertrophy				1 (2%)	
Acinus, Vacuolization Cytoplasmic			1 (2%)	, ,	
Duct, Cyst		1 (2%)	1 (2%)	1 (2%)	
Salivary Glands	(49)	(49)	(50)	(50)	
Atrophy	(10)	1 (2%)	(88)	(00)	
Infiltration Cellular, Mononuclear Cell	34 (69%)	33 (67%)	31 (62%)	26 (52%)	
Duct, Submandibular Gland, Hyperplasia	34 (09 /0)	33 (07 78)	1 (2%)	20 (3270)	
Parotid Gland, Hyperplasia			1 (276)	1 (20()	
Oterania Faranta anala	(50)	(50)	(50)	1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Erosion	- ()	1 (2%)	14 (28%)	11 (22%)	
Inflammation, Chronic	3 (6%)	6 (12%)	21 (42%)	22 (44%)	
Ulcer		2 (4%)	3 (6%)	6 (12%)	
Epithelium, Hyperplasia	3 (6%)	6 (12%)	23 (46%)	24 (48%)	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell	2 (4%)	1 (2%)		1 (2%)	
Mineralization	1 (2%)				
Ulcer	,			2 (4%)	
Epithelium, Hyperplasia			1 (2%)	2 (4%)	
Glands, Ectasia	1 (2%)	1 (2%)	2 (4%)	()	
Tooth	(1)	(1)	(2)	(2)	
Dysplasia	1 (100%)	1 (100%)	2 (100%)	2 (100%)	
ARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Mineralization		1 (2%)			
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	2 (4%)	1 (2%)	4 (8%)	1 (2%)	
Thrombosis		1 (2%)			
Artery, Infiltration Cellular, Mononuclear Cell	1 (2%)	4 (8%)	3 (6%)		
Myocardium, Mineralization	, ,	2 (4%)	, ,	1 (2%)	
Valve, Inflammation		2 (4%)		, ,	
NDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
		(50)	(50)	(50)	
Atrophy	1 (2%)				
Mineralization	1 (2%)				

TDMS No. 20007 - 06 Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

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

Test Type: CHRONIC Route: GAVAGE

TDMS No. 20007 - 06

Species/Strain: MICE/B6C3F1

Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Vacuolization Cytoplasmic Subcapsular, Hyperplasia Zona Reticularis, Hyperplasia	1 (2%) 49 (98%)	50 (100%)	4 (8%) 50 (100%)	50 (100%) 1 (2%)	
Adrenal Medulla Hyperplasia Vacuolization Cytoplasmic	(50) 1 (2%)	(50)	(50) 2 (4%)	(50) 2 (4%) 1 (2%)	
Islets, Pancreatic Hyperplasia Parathyroid Gland	(50) 4 (8%) (48)	(50) 4 (8%) (44)	(50) 1 (2%) (48)	(50) (48)	
Cyst Pituitary Gland Angiectasis	(50)	1 (2%) (50)	(49) 1 (2%)	(50)	
Cyst Pars Distalis, Hyperplasia Thyroid Gland Cyst	1 (2%) 4 (8%) (50)	1 (2%) 4 (8%) (50) 1 (2%)	2 (4%) 7 (14%) (50)	1 (2%) 5 (10%) (50)	
Ectopic Thymus Infiltration Cellular, Mononuclear Cell Follicle, Hyperplasia	1 (2%) 1 (2%) 1 (2%)	. (= /0)			
ENERAL BODY SYSTEM					
Tissue NOS Inflammation, Chronic	(0)	(0)	(0)	(1) 1 (100%)	
ENITAL SYSTEM					
Clitoral Gland Inflammation	(49) 1 (2%)	(48)	(50)	(50)	
Ovary Angiectasis Cyst Hemorrhage	(49) 1 (2%) 4 (8%) 1 (2%)	(50) 1 (2%) 10 (20%)	(50) 2 (4%) 6 (12%)	(50) 1 (2%) 4 (8%)	
Thrombosis Uterus Inflammation, Suppurative	(50) 3 (6%)	1 (2%) (50) 1 (2%)	2 (4%) (50)	(50)	
Metaplasia, Squamous Endometrium, Hyperplasia, Cystic Vagina Vacuolization Cytoplasmic	1 (2%) 42 (84%) (0)	2 (4%) 44 (88%) (0)	42 (84%) (0)	36 (72%) (1) 1 (100%)	

HEMATOPOIETIC SYSTEM

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

TDMS No. 20007 - 06
Test Type: CHRONIC
Route: GAVAGE

Species/Strain: MICE/B6C3F1

Kava kava extract
CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Bone Marrow	(50)	(50)	(50)	(50)	
Fibrosis	(30)	2 (4%)	1 (2%)	1 (2%)	
Necrosis		2 (170)	. (270)	1 (2%)	
Lymph Node	(3)	(3)	(0)	(0)	
Mediastinal, Hyperplasia, Lymphoid	1 (33%)	(-)	(-)	(-)	
Mediastinal, Hyperplasia, Plasma Cell	,	1 (33%)			
Lymph Node, Mandibular	(48)	(49)	(50)	(50)	
Hyperplasia, Lymphoid	4 (8%)	4 (8%)	4 (8%)	2 (4%)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Hyperplasia, Lymphoid				1 (2%)	
Hyperplasia, Plasma Cell		1 (2%)			
Inflammation, Granulomatous				1 (2%)	
Spleen	(49)	(48)	(50)	(49)	
Hematopoietic Cell Proliferation	26 (53%)	24 (50%)	20 (40%)	10 (20%)	
Hyperplasia, Lymphoid	7 (14%)	6 (13%)	6 (12%)	5 (10%)	
Lymphoid Follicle, Atrophy	4 (8%)	2 (4%)	4 (8%)	2 (4%)	
Thymus	(50)	(50)	(49)	(47)	
Atrophy	39 (78%)	44 (88%)	46 (94%)	40 (85%)	
Hyperplasia, Histiocytic	1 (2%)		2 (4%)	1 (2%)	
Infiltration Cellular, Histiocyte Epithelial Cell, Hyperplasia	5 (10%) 1 (2%)			2 (4%)	
	. (270)				
TEGUMENTARY SYSTEM					
Mammary Gland	(50)	(49)	(50)	(50)	
Hyperplasia	1 (2%)				
Inflammation, Chronic Active	1 (2%)				
Metaplasia, Squamous	1 (2%)				
Skin	(50)	(50)	(50)	(50)	
Fibrosis	((00)		1 (2%)		
Inflammation, Chronic	1 (2%)	4 (00()	1 (2%)		
Ulcer	1 (2%)	1 (2%)			
Subcutaneous Tissue, Fibrosis		1 (2%)	4 (20()		
Subcutaneous Tissue, Necrosis			1 (2%)		
USCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibrosis	15 (30%)	8 (16%)	7 (14%)	9 (18%)	
Joint, Inflammation, Chronic		1 (2%)			
Skeletal Muscle	(3)	(1)	(0)	(0)	

NERVOUS SYSTEM

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

TDMS No. 20007 - 06 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

Kava kava extract **CAS Number:** 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Brain	(50)	(50)	(50)	(50)	
Choroid Plexus, Infiltration Cellular, Mononuclear Cell	1 (2%)				
Hypothalamus, Compression Peripheral Nerve	2 (4%) (1)	(0)	(0)	(1)	
Infiltration Cellular, Mononuclear Cell Axon, Degeneration	1 (100%) 1 (100%)			1 (100%)	
Spinal Cord	(1)	(0)	(0)	(1)	
Axon, Degeneration	1 (100%)				
SPIRATORY SYSTEM					
Lung	(50) 1 (2%)	(50)	(50)	(50)	
Hemorrhage Inflammation	1 (2%)		2 (4%)		
Inflammation, Acute	1 (270)	1 (2%)	2 (170)		
Metaplasia, Osseous		1 (2%)			
Mineralization	0 (001)	1 (2%)		. (00()	
Alveolar Epithelium, Hyperplasia	3 (6%)	1 (2%)		1 (2%)	
Alveolus, Infiltration Cellular, Histiocyte Serosa, Fibrosis		1 (2%) 1 (2%)		1 (2%)	
Nose	(50)	(50)	(50)	(50)	
Inflammation, Suppurative	(00)	(00)	(00)	1 (2%)	
Inflammation, Chronic	4 (8%)	2 (4%)		(=/-)	
Glands, Dilatation	, ,	` '	1 (2%)		
Nasolacrimal Duct, Inflammation, Suppurative			1 (2%)		
Olfactory Epithelium, Degeneration	1 (2%)	(50)	(50)	(50)	
Trachea Inflammation, Chronic	(50)	(50) 1 (2%)	(50)	(50)	
illianimation, Grionic		1 (270)			
ECIAL SENSES SYSTEM					
Eye Anterior Chamber, Inflammation, Suppurative	(50) 1 (2%)	(50)	(50)	(50)	
Harderian Gland	(50)	(49)	(50)	(50)	
Atrophy	1 (2%)		1 (2%)		
Hyperplasia	3 (6%)	4 (8%)	5 (10%)	5 (10%)	
Infiltration Cellular, Mononuclear Cell	38 (76%)	42 (86%)	42 (84%)	38 (76%)	
NINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Amyloid Deposition	1 (2%)	2 (4%)	2 (4%)	1 (2%)	

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

TDMS No. 20007 - 06

Test Type: CHRONIC

Route: GAVAGE
Species/Strain: MICE/B6C3F1

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Kava kava extract

CAS Number: 9000-38-8

Date Report Requested: 04/13/2009 Time Report Requested: 10:57:30 First Dose M/F: 08/24/04 / 08/23/04

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG	
Hydronephrosis		1 (2%)			
Inflammation	1 (2%)	1 (2%)		1 (2%)	
Metaplasia, Osseous	3 (6%)	1 (2%)	1 (2%)	5 (10%)	
Mineralization	12 (24%)	20 (40%)	7 (14%)	13 (26%)	
Nephropathy	21 (42%)	25 (50%)	26 (52%)	20 (40%)	
Papilla, Necrosis	1 (2%)	3 (6%)	1 (2%)	3 (6%)	
Pelvis, Cyst			1 (2%)		
Renal Tubule, Hyperplasia	3 (6%)	1 (2%)	2 (4%)		
Urinary Bladder	(50)	(48)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell	34 (68%)	34 (71%)	40 (80%)	34 (68%)	
Inflammation		1 (2%)			

*** END OF REPORT ***