

TDMS No. 2007 - 06

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 04/13/2009

Test Type: CHRONIC

Kava kava extract

Time Report Requested: 10:57:30

Route: GAVAGE

CAS Number: 9000-38-8

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

Species/Strain: MICE/B6C3F1

Lab: BAT

F_M3

C Number: C20007
Lock Date: 05/10/2007
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.1.0

Test Type: CHRONIC

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

Species/Strain: MICE/B6C3F1

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			
Terminal Sacrifice	33	33	34	36
Animals Examined Microscopically	50	50	50	50

ALIMENTARY SYSTEM

Gallbladder	(49)	(50)	(49)	(47)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Adenoma	1 (2%)	1 (2%)		1 (2%)
Carcinoma	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Hemangioma		1 (2%)		
Hemangiosarcoma	5 (10%)			1 (2%)
Hemangiosarcoma, Metastatic, Testes			1 (2%)	
Hepatoblastoma		4 (8%)	7 (14%)	9 (18%)
Hepatoblastoma, Multiple			2 (4%)	3 (6%)
Hepatocellular Adenoma	14 (28%)	13 (26%)	10 (20%)	12 (24%)
Hepatocellular Adenoma, Multiple	13 (26%)	19 (38%)	19 (38%)	23 (46%)
Hepatocellular Carcinoma	16 (32%)	15 (30%)	19 (38%)	15 (30%)
Hepatocellular Carcinoma, Multiple	4 (8%)	3 (6%)	7 (14%)	5 (10%)
Hepatocholangiocarcinoma	4 (8%)			1 (2%)
Osteosarcoma, Metastatic, Skin	1 (2%)			
Mesentery	(3)	(6)	(2)	(3)
Pancreas	(50)	(50)	(50)	(50)
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(50)	(50)	(50)	(50)

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

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Squamous Cell Carcinoma	1 (2%)			
Squamous Cell Papilloma	8 (16%)	2 (4%)		2 (4%)
Squamous Cell Papilloma, Multiple		1 (2%)		
Stomach, Glandular	(50)	(50)	(50)	(50)
Hepatoblastoma, Metastatic, Liver				1 (2%)
Tooth	(33)	(32)	(27)	(21)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Osteosarcoma, Metastatic, Skin	1 (2%)			
Rhabdomyosarcoma			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma		1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Benign			2 (4%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma				1 (2%)
Parathyroid Gland	(47)	(44)	(46)	(44)
Pituitary Gland	(49)	(50)	(50)	(50)
Pars Distalis, Adenoma			1 (2%)	
Pars Intermedia, Adenoma	1 (2%)			
Thyroid Gland	(50)	(50)	(49)	(50)
Follicular Cell, Adenoma				2 (4%)
GENERAL BODY SYSTEM				
Peritoneum	(0)	(0)	(0)	(2)
GENITAL SYSTEM				

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Coagulating Gland	(0)	(1)	(1)	(0)
Epididymis	(50)	(50)	(50)	(50)
Penis	(0)	(1)	(0)	(0)
Preputial Gland	(50)	(50)	(50)	(50)
Prostate	(50)	(50)	(50)	(50)
Seminal Vesicle	(50)	(50)	(50)	(50)
Testes	(50)	(50)	(50)	(50)
Hemangiosarcoma			1 (2%)	
Interstitial Cell, Adenoma	1 (2%)			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hemangioma	1 (2%)			
Hemangiosarcoma	2 (4%)			
Lymph Node	(0)	(1)	(3)	(3)
Pancreatic, Hepatoblastoma, Metastatic, Liver		1 (100%)		
Lymph Node, Mandibular	(50)	(50)	(50)	(49)
Lymph Node, Mesenteric	(50)	(50)	(50)	(49)
Spleen	(50)	(50)	(49)	(50)
Hemangiosarcoma	2 (4%)	1 (2%)	2 (4%)	
Thymus	(48)	(47)	(47)	(49)
Hemangiosarcoma, Metastatic, Spleen		1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Subcutaneous Tissue, Fibrosarcoma				1 (2%)
Subcutaneous Tissue, Granular Cell Tumor Benign	1 (2%)			
Subcutaneous Tissue, Hemangiosarcoma	1 (2%)	1 (2%)	1 (2%)	
Subcutaneous Tissue, Osteosarcoma	1 (2%)			
MUSCULOSKELETAL SYSTEM				

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Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Bone	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
Skeletal Muscle	(2)	(0)	(1)	(0)
Hemangiosarcoma	1 (50%)			
Hepatocholangiocarcinoma, Metastatic, Liver	1 (50%)			
Rhabdomyosarcoma, Metastatic, Heart			1 (100%)	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	9 (18%)	6 (12%)	7 (14%)	7 (14%)
Alveolar/Bronchiolar Adenoma, Multiple		1 (2%)	1 (2%)	2 (4%)
Alveolar/Bronchiolar Carcinoma	2 (4%)	4 (8%)	6 (12%)	1 (2%)
Alveolar/Bronchiolar Carcinoma, Multiple		2 (4%)		
Carcinoma, Metastatic, Harderian Gland		1 (2%)		1 (2%)
Hemangiosarcoma, Metastatic, Liver	1 (2%)			
Hemangiosarcoma, Metastatic, Testes			1 (2%)	
Hepatoblastoma, Metastatic, Liver		1 (2%)	1 (2%)	1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver	5 (10%)	7 (14%)	7 (14%)	10 (20%)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Osteosarcoma, Metastatic, Skin	1 (2%)			
Rhabdomyosarcoma, Metastatic, Heart			1 (2%)	
Nose	(50)	(50)	(50)	(50)
Trachea	(50)	(50)	(50)	(50)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma	5 (10%)	5 (10%)	3 (6%)	6 (12%)
Carcinoma		1 (2%)	1 (2%)	1 (2%)

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Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Capsule, Hemangioma	1 (2%)			
Renal Tubule, Adenoma	1 (2%)	3 (6%)		
Urethra	(2)	(4)	(0)	(1)
Urinary Bladder	(50)	(50)	(50)	(50)
Hepatoblastoma, Metastatic, Liver				1 (2%)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma		1 (2%)	1 (2%)	1 (2%)
Lymphoma Malignant	2 (4%)	3 (6%)	1 (2%)	6 (12%)

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

* Number of animals with any tissue examined microscopically

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE MALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	47	46	47	47
Total Primary Neoplasms	99	88	92	100
Total Animals with Benign Neoplasms	34	38	35	37
Total Benign Neoplasms	57	53	43	56
Total Animals with Malignant Neoplasms	32	27	36	32
Total Malignant Neoplasms	42	35	49	44
Total Animals with Metastatic Neoplasms	9	10	9	13
Total Metastatic Neoplasms	17	12	12	14
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

*** END OF MALE ***

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

b - Primary tumors: all tumors except metastatic tumors

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Species/Strain: MICE/B6C3F1

Lab: BAT

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			1
Moribund Sacrifice	4	4	1	7
Natural Death	7	12	4	5
Survivors				
Terminal Sacrifice	38	34	45	37
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Gallbladder	(50)	(48)	(49)	(50)
Liposarcoma, Metastatic, Skin		1 (2%)		
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Liposarcoma, Metastatic, Skin		1 (2%)		
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Uncertain Primary Site			1 (2%)	
Hemangioma				1 (2%)
Hemangiosarcoma	1 (2%)	1 (2%)	1 (2%)	
Hepatoblastoma			1 (2%)	
Hepatocellular Adenoma	8 (16%)	7 (14%)	8 (16%)	4 (8%)
Hepatocellular Adenoma, Multiple		4 (8%)	6 (12%)	1 (2%)
Hepatocellular Carcinoma	2 (4%)	12 (24%)	7 (14%)	8 (16%)
Hepatocellular Carcinoma, Multiple	1 (2%)	1 (2%)	1 (2%)	
Liposarcoma, Metastatic, Skin		1 (2%)		
Sarcoma	1 (2%)			
Mesentery	(8)	(10)	(5)	(6)
Pancreas	(49)	(50)	(50)	(50)
Liposarcoma, Metastatic, Skin		1 (2%)		

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Salivary Glands	(49)	(49)	(50)	(50)
Stomach, Forestomach	(50)	(50)	(50)	(50)
Squamous Cell Carcinoma			2 (4%)	
Squamous Cell Papilloma	3 (6%)	3 (6%)	2 (4%)	
Stomach, Glandular	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Tooth	(1)	(1)	(2)	(2)
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Heart	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma		1 (2%)		
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Benign		1 (2%)		1 (2%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma	1 (2%)	1 (2%)		
Carcinoma			1 (2%)	
Parathyroid Gland	(48)	(44)	(48)	(48)
Pituitary Gland	(50)	(50)	(49)	(50)
Pars Distalis, Adenoma	2 (4%)	1 (2%)	1 (2%)	
Pars Intermedia, Adenoma	1 (2%)			
Thyroid Gland	(50)	(50)	(50)	(50)
GENERAL BODY SYSTEM				
Tissue NOS	(0)	(0)	(0)	(1)
GENITAL SYSTEM				
Clitoral Gland	(49)	(48)	(50)	(50)

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Ovary	(49)	(50)	(50)	(50)
Cystadenoma	5 (10%)	9 (18%)	9 (18%)	4 (8%)
Granulosa Cell Tumor Benign			1 (2%)	
Hemangioma		3 (6%)	1 (2%)	
Hemangiosarcoma				1 (2%)
Luteoma	1 (2%)			
Teratoma Benign		1 (2%)		
Uterus	(50)	(50)	(50)	(50)
Hemangioma				1 (2%)
Leiomyosarcoma				1 (2%)
Polyp Stromal	2 (4%)			2 (4%)
Vagina	(0)	(0)	(0)	(1)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hemangiosarcoma		2 (4%)		
Lymph Node	(3)	(3)	(0)	(0)
Lymph Node, Mandibular	(48)	(49)	(50)	(50)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Spleen	(49)	(48)	(50)	(49)
Hemangiosarcoma			1 (2%)	
Liposarcoma, Metastatic, Skin		1 (2%)		
Mast Cell Tumor Malignant	1 (2%)			
Thymus	(50)	(50)	(49)	(47)
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Rhabdomyosarcoma, Metastatic, Skeletal Muscle	1 (2%)			
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(50)
Adenoma		1 (2%)	1 (2%)	
Skin	(50)	(50)	(50)	(50)
Fibrosarcoma		1 (2%)		
Fibrous Histiocytoma				1 (2%)
Subcutaneous Tissue, Fibrous Histiocytoma			1 (2%)	
Subcutaneous Tissue, Hemangioma			1 (2%)	

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Subcutaneous Tissue, Liposarcoma		1 (2%)		
Subcutaneous Tissue, Schwannoma		1 (2%)		
Malignant				
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma		2 (4%)		1 (2%)
Skeletal Muscle	(3)	(1)	(0)	(0)
Liposarcoma, Metastatic, Skin		1 (100%)		
Rhabdomyosarcoma	3 (100%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Peripheral Nerve	(1)	(0)	(0)	(1)
Spinal Cord	(1)	(0)	(0)	(1)
Sarcoma, Metastatic, Liver	1 (100%)			
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	4 (8%)	5 (10%)	2 (4%)
Alveolar/Bronchiolar Adenoma, Multiple	1 (2%)			
Alveolar/Bronchiolar Carcinoma	1 (2%)	1 (2%)	3 (6%)	2 (4%)
Alveolar/Bronchiolar Carcinoma, Multiple	1 (2%)			
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)	4 (8%)	2 (4%)	1 (2%)
Osteosarcoma, Metastatic, Bone				1 (2%)
Rhabdomyosarcoma, Metastatic, Skeletal Muscle	1 (2%)			
Nose	(50)	(50)	(50)	(50)
Trachea	(50)	(50)	(50)	(50)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)

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Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
Iris, Melanoma Benign			1 (2%)	
Harderian Gland	(50)	(49)	(50)	(50)
Adenoma	5 (10%)	5 (10%)	2 (4%)	5 (10%)
Bilateral, Adenoma				1 (2%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			
Hemangioma			1 (2%)	
Urinary Bladder	(50)	(48)	(50)	(50)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	3 (6%)			2 (4%)
Lymphoma Malignant	6 (12%)	7 (14%)	1 (2%)	6 (12%)

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

* Number of animals with any tissue examined microscopically

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Lab: BAT

B6C3F1 MICE FEMALE	0 G/KG	0.25 G/KG	0.5 G/KG	1.0 G/KG
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	39	38	35	30
Total Primary Neoplasms	53	70	58	44
Total Animals with Benign Neoplasms	26	26	27	19
Total Benign Neoplasms	33	41	39	22
Total Animals with Malignant Neoplasms	19	24	17	18
Total Malignant Neoplasms	20	29	19	22
Total Animals with Metastatic Neoplasms	4	5	3	3
Total Metastatic Neoplasms	6	10	3	5
Total Animals with Malignant Neoplasms Uncertain Primary Site			1	
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

*** END OF REPORT ***

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

b - Primary tumors: all tumors except metastatic tumors