

Experiment Number: 20007 - 04
Test Type: 90-DAY
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: 09/13/2016
Time Report Requested: 11:24:53
First Dose M/F: 09/18/03 / 09/17/03
Lab: BAT

NTP Study Number: C20007
Lock Date: 05/24/2004
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

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| B6C3F1 MICE MALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|----------------------------------|---------|------------|-----------|----------|-----------|----------|
| Disposition Summary | | | | | | |
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Natural Death | | | | | | 4 |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 6 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |
| ALIMENTARY SYSTEM | | | | | | |
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Gallbladder | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (10) |
| Liver | (10) | (10) | (10) | (10) | (10) | (10) |
| Inflammation, Chronic | 6 (60%) | 7 (70%) | 4 (40%) | 7 (70%) | 7 (70%) | 4 (40%) |
| Necrosis | | 1 (10%) | | 1 (10%) | 1 (10%) | 4 (40%) |
| Centrilobular, Hypertrophy | | | | 9 (90%) | 10 (100%) | 7 (70%) |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Artery, Inflammation | 1 (10%) | | | | | |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (0) | (0) | (10) |
| Inflammation, Chronic | | | | | | 1 (10%) |
| Mineralization | | | | | | 1 (10%) |
| Stomach, Glandular | (10) | (0) | (0) | (0) | (0) | (10) |
| Inflammation | 1 (10%) | | | | | 1 (10%) |
| CARDIOVASCULAR SYSTEM | | | | | | |
| Blood Vessel | (10) | (0) | (0) | (0) | (0) | (10) |

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

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First Dose M/F: 09/18/03 / 09/17/03

Lab: BAT

| B6C3F1 MICE MALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|-----------------------------|---------|------------|-----------|----------|----------|----------|
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| ENDOCRINE SYSTEM | | | | | | |
| Adrenal Cortex | (10) | (0) | (0) | (0) | (0) | (10) |
| Hypertrophy | 1 (10%) | | | | | 1 (10%) |
| Hypertrophy, Focal | | | | | | 1 (10%) |
| Subcapsular, Hyperplasia | 5 (50%) | | | | | 6 (60%) |
| Adrenal Medulla | (10) | (0) | (0) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (7) | (0) | (0) | (0) | (0) | (7) |
| Cyst | 1 (14%) | | | | | |
| Pituitary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Thyroid Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Epididymis | (10) | (0) | (0) | (0) | (0) | (10) |
| Preputial Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Prostate | (10) | (0) | (0) | (0) | (0) | (10) |
| Seminal Vesicle | (10) | (0) | (0) | (0) | (0) | (10) |
| Testes | (10) | (0) | (0) | (0) | (0) | (10) |
| Hypoplasia | | | | | | 1 (10%) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (10) | (10) | (10) | (10) | (10) |
| Lymph Node, Mandibular | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (0) | (0) | (10) |

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Lab: BAT

| B6C3F1 MICE MALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|-------------------------------|---------|------------|-----------|----------|----------|----------|
| Spleen | (10) | (10) | (10) | (10) | (10) | (10) |
| Thymus | (10) | (10) | (10) | (10) | (10) | (10) |
| Necrosis | | | | | | 3 (30%) |
| INTEGUMENTARY SYSTEM | | | | | | |
| Skin | (10) | (0) | (0) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| RESPIRATORY SYSTEM | | | | | | |
| Lung | (10) | (0) | (0) | (0) | (0) | (10) |
| Congestion | | | | | | 2 (20%) |
| Inflammation, Chronic Active | 1 (10%) | | | | | |
| Nose | (10) | (0) | (0) | (0) | (0) | (10) |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (10) | (0) | (0) | (0) | (0) | (10) |
| Harderian Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (0) | (0) | (0) | (0) | (10) |

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

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First Dose M/F: 09/18/03 / 09/17/03

Lab: BAT

| B6C3F1 MICE MALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|------------------|---------|------------|-----------|----------|----------|----------|
| Mineralization | 2 (20%) | | | | | |
| Nephropathy | 2 (20%) | | | | | |
| Urinary Bladder | (10) | (0) | (0) | (0) | (0) | (10) |

*** END OF MALE ***

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| B6C3F1 MICE FEMALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|--------------------|--------|------------|-----------|----------|----------|----------|
|--------------------|--------|------------|-----------|----------|----------|----------|

Disposition Summary

| | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Dosing Accident | | | | | | 1 |
| Natural Death | | | | | | 3 |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 6 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |

ALIMENTARY SYSTEM

| | | | | | | |
|-----------------------------------|---------|-----------|-----------|---------|---------|---------|
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Hemorrhage | | | | | | 1 (10%) |
| Inflammation, Acute | | | | | | 1 (10%) |
| Gallbladder | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (10) |
| Liver | (10) | (10) | (10) | (10) | (10) | (10) |
| Inflammation, Chronic | 9 (90%) | 10 (100%) | 10 (100%) | 9 (90%) | 8 (80%) | 4 (40%) |
| Necrosis | | 1 (10%) | 1 (10%) | 1 (10%) | | |
| Centrilobular, Hypertrophy | | | | 2 (20%) | 5 (50%) | 4 (40%) |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Acinus, Vacuolization Cytoplasmic | 1 (10%) | | | | | 2 (20%) |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (0) | (0) | (10) |
| Mineralization | | | | | | 1 (10%) |
| Stomach, Glandular | (10) | (0) | (0) | (0) | (0) | (10) |
| Cyst | 1 (10%) | | | | | 1 (10%) |
| Inflammation, Chronic | | | | | | 1 (10%) |
| Mineralization | | | | | | 1 (10%) |

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|------------------------------|-----------|------------|-----------|----------|----------|----------|
| CARDIOVASCULAR SYSTEM | | | | | | |
| Blood Vessel | (10) | (0) | (0) | (0) | (0) | (10) |
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| ENDOCRINE SYSTEM | | | | | | |
| Adrenal Cortex | (10) | (0) | (0) | (0) | (0) | (10) |
| Subcapsular, Hyperplasia | 10 (100%) | | | | | 8 (80%) |
| Adrenal Medulla | (10) | (0) | (0) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (7) | (0) | (0) | (0) | (0) | (10) |
| Pituitary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Thyroid Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Cyst | | | | | | 1 (10%) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Clitoral Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Ovary | (10) | (0) | (0) | (0) | (0) | (10) |
| Uterus | (10) | (0) | (0) | (0) | (0) | (10) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (10) | (10) | (10) | (10) | (10) |
| Lymph Node, Mandibular | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (0) | (0) | (10) |
| Spleen | (10) | (10) | (10) | (10) | (10) | (10) |

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|-------------------------------|--------|------------|-----------|----------|----------|-----------------|
| Thymus Necrosis | (10) | (10) | (10) | (10) | (10) | (10) 2 (20%) |
| INTEGUMENTARY SYSTEM | | | | | | |
| Mammary Gland | (10) | (0) | (0) | (0) | (0) | (9) |
| Skin Inflammation | (10) | (0) | (0) | (0) | (0) | (10) 1 (10%) |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| RESPIRATORY SYSTEM | | | | | | |
| Lung Congestion | (10) | (0) | (0) | (0) | (0) | (10) 1 (10%) |
| Nose | (10) | (0) | (0) | (0) | (0) | (10) |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (10) | (0) | (0) | (0) | (0) | (9) |
| Harderian Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (0) | (0) | (0) | (0) | (10) |

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| B6C3F1 MICE FEMALE | 0 G/KG | 0.125 G/KG | 0.25 G/KG | 0.5 G/KG | 1.0 G/KG | 2.0 G/KG |
|---------------------------|---------------|-------------------|------------------|-----------------|-----------------|-----------------|
| Nephropathy | | | | | | 1 (10%) |
| Urinary Bladder | (10) | (0) | (0) | (0) | (0) | (9) |

*** END OF REPORT ***

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