

Experiment Number: 20609 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

NTP Study Number: C20609
Lock Date: 07/01/2013
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

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
--------------------------------------	---------------	--------------	--------------	--------------	---------------	---------------

Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	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)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [1.0]					
Tension Lipidosis	1 [2.0]					2 [1.0]
Vacuolization Cytoplasmic	6 [1.2]					2 [1.0]
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Epithelium, Hyperplasia	1 [3.0]					
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

ENDOCRINE 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)

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Subcapsular, Hyperplasia	1 [1.0]					1 [1.0]
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(8)
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)
Cyst						1 [3.0]
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Hyperplasia, Lymphoid	3 [1.7]					2 [1.5]
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Hematopoietic Cell Proliferation						2 [2.0]
Hyperplasia, Lymphoid						2 [2.0]
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

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)

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
INTEGUMENTARY SYSTEM						
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone, Femur	(10)	(0)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain, Brain Stem	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebellum	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebrum	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(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)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)
Lumen, Dilatation						1 [4.0]

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)

Experiment Number: 20609 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE

Control 0 ppm

Usnic 15 ppm

Usnic 30 ppm

Usnic 60 ppm

Usnic 180 ppm

Usnic 360 ppm

*** 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)

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
--	---------------	--------------	--------------	--------------	---------------	---------------

Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Accidentally Killed			1			
Survivors						
Terminal Sacrifice	10	10	9	10	10	10
Animals Examined Microscopically	10		1			10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(1)	(0)	(0)	(10)
Gallbladder	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(1)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(1)	(0)	(0)	(10)
Liver	(10)	(0)	(1)	(0)	(0)	(10)
Inflammation, Chronic Active						2 [1.0]
Tension Lipidosis	1 [2.0]					
Vacuolization Cytoplasmic	4 [1.3]		1 [2.0]			
Pancreas	(10)	(0)	(1)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(1)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(1)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(1)	(0)	(0)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(1)	(0)	(0)	(10)
Heart	(10)	(0)	(1)	(0)	(0)	(10)

ENDOCRINE 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)

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
Adrenal Cortex	(10)	(0)	(1)	(0)	(0)	(10)
Subcapsular, Hyperplasia	10 [1.0]		1 [1.0]			10 [1.1]
Adrenal Medulla	(10)	(0)	(1)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(1)	(0)	(0)	(10)
Parathyroid Gland	(9)	(0)	(1)	(0)	(0)	(9)
Pituitary Gland	(10)	(0)	(1)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(1)	(0)	(0)	(10)
Ectopic Thymus	1					

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(9)	(0)	(1)	(0)	(0)	(10)
Ovary	(10)	(0)	(1)	(0)	(0)	(10)
Uterus	(10)	(0)	(1)	(0)	(0)	(10)
Endometrium, Hyperplasia						1 [3.0]

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(1)	(0)	(0)	(10)
Hyperplasia	1 [3.0]					
Lymph Node, Mandibular	(10)	(0)	(1)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(0)	(1)	(0)	(0)	(10)
Hyperplasia, Lymphoid						1 [1.0]
Spleen	(10)	(0)	(1)	(0)	(0)	(10)
Hematopoietic Cell Proliferation	2 [2.0]					2 [2.0]
Hyperplasia, Lymphoid	4 [2.0]					
Thymus	(10)	(0)	(1)	(0)	(0)	(10)
Hyperplasia, Lymphoid						2 [2.0]
Necrosis	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)

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(1)	(0)	(0)	(10)
Skin	(10)	(0)	(1)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(1)	(0)	(0)	(0)
Cranium, Fracture			1			
Cranium, Hemorrhage			1 [4.0]			
Bone, Femur	(10)	(0)	(1)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain, Brain Stem	(10)	(0)	(1)	(0)	(0)	(10)
Hemorrhage			1 [2.0]			
Brain, Cerebellum	(10)	(0)	(1)	(0)	(0)	(10)
Hemorrhage			1 [3.0]			
Brain, Cerebrum	(10)	(0)	(1)	(0)	(0)	(10)
Hemorrhage			1 [2.0]			
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(1)	(0)	(0)	(10)
Hemorrhage			1 [4.0]			
Nose	(10)	(0)	(1)	(0)	(0)	(10)
Hemorrhage			1 [2.0]			
Trachea	(10)	(0)	(1)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(1)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(1)	(0)	(0)	(10)

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)

Experiment Number: 20609 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

(+)-Usnic Acid

Time Report Requested: 12:50:16

Route: DOSED FEED

CAS Number: 7562-61-0

First Dose M/F: 08/07/08 / 08/07/08

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 ppm	Usnic 15 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 180 ppm	Usnic 360 ppm
<hr/>						
URINARY SYSTEM						
Kidney	(10)	(0)	(1)	(0)	(0)	(10)
Urinary Bladder	(10)	(0)	(1)	(0)	(0)	(10)

*** 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)