Experiment Number: 20116-01 Test Type: 90-DAY

Route: DOSED WATER
Species/Strain: Rat/F 344/N

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

Test Compound: Aloe vera whole leaf extract (native)

CAS Number: ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

Lab: NCTR

C Number: C20116B

Lock Date: Not Entered.

Cage Range: All

Date Range: All

Reasons For Removal:

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

**Test Compound:** Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat MALE	CONTROL	1% WLN	2% WLN	3% WLN
Disposition Summary				
Animals Initially In Study	12	11	12	12
Early Deaths				
Moribund Sacrifice			2	5
Survivors				
Terminal Sacrifice	12	11	10	7
Animals Examined Microscopically	12	11	12	12
ALIMENTARY SYSTEM				
Esophagus	(12)	(0)	(12)	(12)
Intestine Large, Cecum	(12)	(11)	(12)	(12)
Goblet Cell, Hyperplasia		6 (55%)	11 (92%)	8 (67%)
Infiltration Cellular, Polymorphnuclr		1 (9%)	4 (33%)	3 (25%)
Intestine Large, Colon	(12)	(11)	(12)	(12)
Goblet Cell, Hyperplasia		10 (91%)	11 (92%)	8 (67%)
Infiltration Cellular, Polymorphnuclr		4 (36%)	4 (33%)	3 (25%)
Intestine Large, Rectum	(10)	(0)	(11)	(11)
Anus, Epithelium, Hyperplasia, Squamous			1 (9%)	
Anus, Hyperplasia, Squamous			2 (18%)	3 (27%)
Anus, Inflammation, Chronic Active			4 (36%)	3 (27%)
Goblet Cell, Hyperplasia			9 (82%)	5 (45%)
Intestine Small, Duodenum	(12)	(0)	(12)	(12)
Intestine Small, Ileum	(12)	(0)	(12)	(12)
Goblet Cell, Hyperplasia			1 (8%)	1 (8%)
Intestine Small, Jejunum	(12)	(0)	(12)	(12)
Liver	(12)	(11)	(12)	(12)
Hepatodiaphragmatic Nodule		1 (9%)		
Inflammation, Chronic Active	2 (17%)			1 (8%)
Vacuolization Cytoplasmic	3 (25%)			
Pancreas	(12)	(0)	(12)	(12)

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

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

Test Type: 90-DAY
Route: DOSED WATER

Species/Strain: Rat/F 344/N

Test Compound: Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

Blood Vessel	F 344/N Rat MALE	CONTROL	1% WLN	2% WLN	3% WLN
Stomach, Forestomach Hyperkeratosis         (12)         (0)         (12)	Acinus, Degeneration	1 (8%)		1 (8%)	
Hyperkeratosis   2 (17%)   Stomach, Glandular   (12)   (0)   (12)   (1	Salivary Glands	(12)	(0)	(12)	(12)
Stomach, Glandular   (12)	Stomach, Forestomach	(12)	(0)	(12)	(12)
CARDIOVASCULAR SYSTEM   Silvant	Hyperkeratosis				2 (17%)
Blood Vessel   (12)   (0)   (12)	Stomach, Glandular	(12)	(0)	(12)	(12)
Heart	CARDIOVASCULAR SYSTEM				
ENDOCRINE SYSTEM  Adrenal Cortex	Blood Vessel	(12)	(0)	(12)	(12)
ENDOCRINE SYSTEM  Adrenal Cortex	Heart	(12)	(0)	(12)	(12)
Adrenal Cortex (12) (0) (11) (12) Adrenal Medulla (11) (0) (10) (11) Islets, Pancreatic (12) (0) (12) (12) Parathyroid Gland (12) (0) (12) (12) Pituitary Gland (9) (0) (12) (10) Thyroid Gland (12) (0) (12) (12)  GENERAL BODY SYSTEM None  SENITAL SYSTEM  Coagulating Gland (0) (0) (0) (0) (3) Hypoplasia (12) (0) (12) (12) Epididymis (12) (0) (12) (12) Hypospermia Preputial Gland (12) (0) (12) (12) Inflammation, Suppurative 7 (58%) 9 (75%) Prostate (12) (0) (12) (12) Inflammation, Suppurative 1 (8%)	Cardiomyopathy	4 (33%)			
Adrenal Medulla (11) (0) (10) (11) (11) Islets, Pancreatic (12) (0) (12) (12) (12) Parathyroid Gland (12) (0) (12) (12) (12) Pituitary Gland (9) (0) (12) (12) (10) Thyroid Gland (12) (0) (12) (12) (12) (12) (13) Thyroid Gland (12) (0) (12) (12) (12) (13) GENERAL BODY SYSTEM None  SENITAL SYSTEM  Coagulating Gland (0) (0) (0) (0) (0) (3) (3) Hypoplasia (12) (0) (12) (12) (12) Hypospermia (12) (0) (12) (12) (12) Hypospermia (12) (0) (12) (12) (12) Inflammation, Suppurative (12) (12) (0) (12) (12) (12) Inflammation, Suppurative (12) (12) (0) (12) (12) (12) Inflammation, Suppurative (12) (0) (12) (12) (12) Inflammation, Suppurative (13) (14) (15) (16) (16) (16) (16) (16) (16) (16) (16	ENDOCRINE SYSTEM				
Adrenal Medulla (11) (0) (10) (11)   Islets, Pancreatic (12) (0) (12) (12) (12)   Parathyroid Gland (12) (0) (12) (12) (12)   Pituitary Gland (9) (0) (12) (10)   Thyroid Gland (12) (0) (12) (10)   Thyroid Gland (12) (0) (12) (12) (12)    GENERAL BODY SYSTEM   None	Adrenal Cortex	(12)	(0)	(11)	(12)
Parathyroid Gland       (12)       (0)       (12)       (12)         Pituitary Gland       (9)       (0)       (12)       (10)         Thyroid Gland       (12)       (0)       (12)       (12)         GENITAL BODY SYSTEM None         GENITAL SYSTEM         Coagulating Gland       (0)       (0)       (0)       (0)       (3)         Hypoplasia       3 (100%)       (12) <td>Adrenal Medulla</td> <td>(11)</td> <td>(0)</td> <td>(10)</td> <td>(11)</td>	Adrenal Medulla	(11)	(0)	(10)	(11)
Pituitary Gland         (9)         (0)         (12)         (10)           Thyroid Gland         (12)         (0)         (12)         (12)           GENERAL BODY SYSTEM None           GENITAL SYSTEM           Coagulating Gland         (0)         (0)         (0)         (0)         (3)           Hypoplasia         (12)         (0)         (12)         (12)           Epididymis         (12)         (0)         (12)         (12)           Hypospermia         (12)         (0)         (12)         (12)           Preputial Gland         (12)         (0)         (12)         (12)           Inflammation, Suppurative         7 (58%)         9 (75%)         9 (75%)           Prostate         (12)         (0)         (12)         (12)           Inflammation, Suppurative         (12)         (0)         (12)         (12)	Islets, Pancreatic	(12)	(0)	(12)	(12)
Thyroid Gland (12) (0) (12) (12)  GENERAL BODY SYSTEM None  GENITAL SYSTEM  Coagulating Gland (0) (0) (0) (0) (3)  Hypoplasia 3 (100%)  Epididymis (12) (0) (12) (12)  Hypospermia 9 (12) (0) (12) (12)  Preputial Gland (12) (0) (12) (12)  Inflammation, Suppurative 7 (58%) 9 (75%)  Prostate (12) (0) (12) (12)  Inflammation, Suppurative 1 (8%)	Parathyroid Gland	(12)	(0)	(12)	(12)
GENERAL BODY SYSTEM None  GENITAL SYSTEM  Coagulating Gland (0) (0) (0) (0) (3) Hypoplasia 3 (100%) Epididymis (12) (0) (12) (12) Hypospermia 3 (25%) Preputial Gland (12) (0) (12) (12) Inflammation, Suppurative 7 (58%) 9 (75%) Prostate (12) (0) (12) (12) Inflammation, Suppurative 1 (8%)	Pituitary Gland	(9)	(0)	(12)	(10)
None         GENITAL SYSTEM         Coagulating Gland       (0)       (0)       (0)       (0)       (3)         Hypoplasia       3 (100%)         Epididymis       (12)       (0)       (12)       (12)         Hypospermia       3 (25%)         Preputial Gland       (12)       (0)       (12)       (12)         Inflammation, Suppurative       7 (58%)       9 (75%)       9 (75%)         Prostate       (12)       (0)       (12)       (12)         Inflammation, Suppurative       (12)       (0)       (12)       (12)	Thyroid Gland	(12)	(0)	(12)	(12)
Coagulating Gland       (0)       (0)       (0)       (3)         Hypoplasia       3 (100%)         Epididymis       (12)       (0)       (12)       (12)         Hypospermia       3 (25%)         Preputial Gland       (12)       (0)       (12)       (12)         Inflammation, Suppurative       7 (58%)       9 (75%)       9 (75%)         Prostate       (12)       (0)       (12)       (12)         Inflammation, Suppurative       1 (8%)	GENERAL BODY SYSTEM None				
Hypoplasia         3 (100%)           Epididymis         (12)         (0)         (12)         (12)           Hypospermia         3 (25%)           Preputial Gland         (12)         (0)         (12)         (12)           Inflammation, Suppurative         7 (58%)         9 (75%)         9 (75%)           Prostate         (12)         (0)         (12)         (12)           Inflammation, Suppurative         1 (8%)	GENITAL SYSTEM				
Hypoplasia         3 (100%)           Epididymis         (12)         (0)         (12)         (12)           Hypospermia         3 (25%)           Preputial Gland         (12)         (0)         (12)         (12)           Inflammation, Suppurative         7 (58%)         9 (75%)         9 (75%)           Prostate         (12)         (0)         (12)         (12)           Inflammation, Suppurative         1 (8%)	Coagulating Gland	(0)	(0)	(0)	(3)
Hypospermia       3 (25%)         Preputial Gland       (12)       (0)       (12)       (12)         Inflammation, Suppurative       7 (58%)       9 (75%)       9 (75%)         Prostate       (12)       (0)       (12)       (12)         Inflammation, Suppurative       1 (8%)	Hypoplasia				3 (100%)
Preputial Gland       (12)       (0)       (12)       (12)         Inflammation, Suppurative       7 (58%)       9 (75%)       9 (75%)         Prostate       (12)       (0)       (12)       (12)         Inflammation, Suppurative       1 (8%)	Epididymis	(12)	(0)	(12)	(12)
Inflammation, Suppurative       7 (58%)       9 (75%)       9 (75%)         Prostate       (12)       (0)       (12)       (12)         Inflammation, Suppurative       1 (8%)	Hypospermia				3 (25%)
Prostate         (12)         (0)         (12)         (12)           Inflammation, Suppurative         1 (8%)	Preputial Gland	(12)	(0)	(12)	(12)
Inflammation, Suppurative 1 (8%)	Inflammation, Suppurative	7 (58%)		9 (75%)	9 (75%)
	Prostate	(12)	(0)	(12)	(12)
Seminal Vesicle (12) (0) (12)	Inflammation, Suppurative				1 (8%)
	Seminal Vesicle	(12)	(0)	(12)	(12)

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

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

**Test Compound:** Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat MALE	CONTROL	1% WLN	2% WLN	3% WLN
Hypoplasia			2 (17%)	3 (25%)
Testes	(12)	(0)	(12)	(12)
Hypoplasia				3 (25%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(12)	(0)	(12)	(12)
Hypocellularity			2 (17%)	4 (33%)
Lymph Node	(0)	(0)	(0)	(1)
Inguinal, Hyperplasia, Lymphoid				1 (100%)
Lymph Node, Mandibular	(12)	(0)	(12)	(12)
Lymph Node, Mesenteric	(12)	(3)	(11)	(12)
Degeneration, Cystic			1 (9%)	1 (8%)
Hyperplasia, Lymphoid	9 (75%)	3 (100%)	9 (82%)	8 (67%)
Spleen	(12)	(11)	(12)	(12)
Hematopoietic Cell Proliferation		1 (9%)	1 (8%)	1 (8%)
Hyperplasia, Lymphoid	1 (8%)	1 (9%)		1 (8%)
Thymus	(12)	(0)	(11)	(12)
Atrophy			1 (9%)	4 (33%)
NTEGUMENTARY SYSTEM				
Mammary Gland	(12)	(0)	(8)	(11)
Skin	(12)	(0)	(12)	(12)
MUSCULOSKELETAL SYSTEM				
Bone, Femur	(12)	(0)	(12)	(12)
NERVOUS SYSTEM				
Brain, Brain Stem	(12)	(0)	(12)	(12)
Brain, Cerebellum	(12)	(0)	(12)	(12)
Brain, Cerebrum	(12)	(0)	(12)	(12)
RESPIRATORY SYSTEM				
Lung	(12)	(0)	(12)	(12)

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

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

**Test Compound:** Aloe vera whole leaf extract (native)

CAS Number: ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat MALE	CONTROL	1% WLN	2% WLN	3% WLN
Infiltration Cellular, Histiocyte			1 (8%)	
Nose	(12)	(0)	(12)	(12)
Trachea	(12)	(0)	(12)	(12)
SPECIAL SENSES SYSTEM				
Eye	(12)	(0)	(12)	(12)
Harderian Gland	(12)	(0)	(12)	(12)
Infiltration Cellular, Lymphoid			1 (8%)	
URINARY SYSTEM				
Kidney	(12)	(11)	(12)	(12)
Nephropathy, Chronic	12 (100%)	11 (100%)	12 (100%)	7 (58%)
Urinary Bladder	(12)	(0)	(12)	(12)
Dilatation	1 (8%)			2 (17%)
Hemorrhage				1 (8%)

<sup>\*\*\*</sup>END OF MALE DATA\*\*\*

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

**Test Compound:** Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat FEMALE	CONTROL	1% WLN	2% WLN	3% WLN
Disposition Summary				
Animals Initially In Study	12	12	12	12
Early Deaths				
Moribund Sacrifice			4	7
Natural Death				1
Survivors				
Terminal Sacrifice	12	12	8	4
Animals Examined Microscopically	12	12	12	11
ALIMENTARY SYSTEM				
Esophagus	(12)	(0)	(11)	(11)
Intestine Large, Cecum	(12)	(12)	(12)	(11)
Goblet Cell, Hyperplasia	1 (8%)	6 (50%)	8 (67%)	4 (36%)
Infiltration Cellular, Polymorphnuclr		1 (8%)		2 (18%)
Intestine Large, Colon	(12)	(12)	(12)	(11)
Goblet Cell, Hyperplasia		8 (67%)	9 (75%)	4 (36%)
Infiltration Cellular, Lymphoid			1 (8%)	
Infiltration Cellular, Polymorphnuclr		2 (17%)	4 (33%)	1 (9%)
Intestine Large, Rectum	(11)	(0)	(12)	(11)
Anus, Epithelium, Hyperplasia, Squamous				1 (9%)
Anus, Hyperplasia, Squamous			2 (17%)	
Anus, Inflammation, Chronic Active			2 (17%)	1 (9%)
Goblet Cell, Hyperplasia			7 (58%)	3 (27%)
Intestine Small, Duodenum	(12)	(0)	(12)	(11)
Intestine Small, Ileum	(12)	(0)	(12)	(11)
Goblet Cell, Hyperplasia				1 (9%)
Intestine Small, Jejunum	(12)	(0)	(12)	(11)
Liver	(12)	(12)	(12)	(11)
Deformity		1 (8%)		
Hepatodiaphragmatic Nodule				1 (9%)

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

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

Test Compound: Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014
Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat FEMALE	CONTROL	1% WLN	2% WLN	3% WLN
Inflammation, Chronic Active	1 (8%)			1 (9%)
Vacuolization Cytoplasmic		1 (8%)		
Pancreas	(12)	(0)	(12)	(11)
Salivary Glands	(12)	(0)	(12)	(11)
Stomach, Forestomach	(12)	(0)	(12)	(11)
Hyperkeratosis			2 (17%)	2 (18%)
Stomach, Glandular	(12)	(0)	(12)	(11)
CARDIOVASCULAR SYSTEM				
Blood Vessel	(12)	(0)	(12)	(11)
Heart	(12)	(0)	(12)	(11)
Inflammation, Chronic Active			1 (8%)	
Polyarteritis			1 (8%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(12)	(0)	(12)	(11)
Adrenal Medulla	(12)	(0)	(12)	(10)
Islets, Pancreatic	(12)	(0)	(12)	(11)
Parathyroid Gland	(11)	(0)	(10)	(11)
Pituitary Gland	(12)	(0)	(11)	(10)
Thyroid Gland	(12)	(0)	(11)	(11)
GENERAL BODY SYSTEM None				
GENITAL SYSTEM				
Clitoral Gland	(12)	(0)	(12)	(11)
Duct, Dilatation			2 (17%)	
Infiltration Cellular, Lymphoid	4 (33%)			1 (9%)
Inflammation, Chronic Active			1 (8%)	
Inflammation, Suppurative	4 (33%)		6 (50%)	9 (82%)
Ovary	(12)	(0)	(12)	(11)

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

Species/Strain: Rat/F 344/N

# P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) Test Compound: Aloe vera whole leaf extract (native)

Test Type: 90-DAY
Route: DOSED WATER

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat FEMALE	CONTROL	1% WLN	2% WLN	3% WLN
Hypoplasia			2 (17%)	5 (45%)
Interstit Cell, Hyperplasia			2 (17%)	1 (9%)
Uterus	(12)	(2)	(12)	(11)
Hypoplasia			2 (17%)	5 (45%)
Lumen, Dilatation	3 (25%)	2 (100%)	1 (8%)	
Vagina	(0)	(0)	(0)	(1)
Lumen, Dilatation				1 (100%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(12)	(0)	(12)	(11)
Hypocellularity			4 (33%)	7 (64%)
Lymph Node	(0)	(0)	(1)	(0)
Lumbar, Hyperplasia, Lymphoid			1 (100%)	
Lymph Node, Mandibular	(12)	(0)	(12)	(11)
Hyperplasia, Lymphoid	1 (8%)			
Lymph Node, Mesenteric	(12)	(4)	(12)	(10)
Degeneration, Cystic			1 (8%)	
Hyperplasia, Lymphoid	9 (75%)	4 (100%)	8 (67%)	4 (40%)
Spleen	(12)	(12)	(12)	(11)
Inflammation, Chronic Active		1 (8%)		
Thymus	(12)	(0)	(12)	(10)
Atrophy			4 (33%)	6 (60%)
NTEGUMENTARY SYSTEM				
Mammary Gland	(12)	(0)	(12)	(8)
Skin	(12)	(0)	(12)	(11)
MUSCULOSKELETAL SYSTEM				
Bone, Femur	(12)	(0)	(12)	(11)
NERVOUS SYSTEM				
Brain, Brain Stem	(12)	(0)	(12)	(11)

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

Test Type: 90-DAY

Route: DOSED WATER

Species/Strain: Rat/F 344/N

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

Test Compound: Aloe vera whole leaf extract (native)

**CAS Number:** ALOEVLEAFEXT

Date Report Requested: 10/23/2014 Time Report Requested: 13:04:13

First Dose M/F: NA / NA

F 344/N Rat FEMALE	CONTROL	1% WLN	2% WLN	3% WLN
Brain, Cerebellum	(12)	(0)	(12)	(11)
Brain, Cerebrum	(12)	(0)	(12)	(11)
RESPIRATORY SYSTEM				
Lung	(12)	(0)	(12)	(11)
Nose	(12)	(0)	(12)	(11)
Trachea	(12)	(0)	(11)	(11)
SPECIAL SENSES SYSTEM				
Eye	(12)	(0)	(12)	(11)
Harderian Gland	(12)	(0)	(12)	(11)
Infiltration Cellular, Lymphoid	3 (25%)		2 (17%)	
URINARY SYSTEM				
Kidney	(12)	(12)	(12)	(11)
Nephropathy, Chronic		7 (58%)	3 (25%)	1 (9%)
Renal Tubule, Mineralization	12 (100%)	12 (100%)	9 (75%)	7 (64%)
Urinary Bladder	(12)	(0)	(12)	(11)

<sup>\*\*</sup> END OF REPORT \*\*