

**Experiment Number:** 96013-04  
**Test Type:** 90-DAY  
**Route:** GAVAGE  
**Species/Strain:** Rat/LONG-EVANS

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

**Test Compound:** Melatonin  
**CAS Number:** 73-31-4

**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 08:48:08  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C96013  
**Lock Date:** 02/28/2003  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** NONE

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat MALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
<b>Disposition Summary</b>						
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	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(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	5 (50%)					6 (60%)
Vacuolization Cytoplasmic, Focal						1 (10%)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Acinus, Atrophy	1 (10%)					1 (10%)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(1)	(0)	(10)
Hyperplasia, Focal				1 (100%)		
Tooth	(6)	(0)	(0)	(0)	(0)	(3)
Pulp, Malformation	6 (100%)					3 (100%)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy						2 (20%)

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

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat MALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
Myocardium, Infiltration Cellular, Mononuclear CI	5 (50%)					1 (10%)
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(8)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(10)	(10)	(10)	(10)	(10)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(0)	(1)	(0)	(0)	(10)
Atrophy			1 (100%)			
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	1 (10%)					
Inflammation, Granulomatous						1 (10%)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active						1 (10%)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(2)	(0)	(0)	(10)
Bilateral, Germinal Epith, Degeneration			1 (50%)			
Germinal Epith, Degeneration			1 (50%)			1 (10%)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Inguinal, Inflammation, Granulomatous						1 (100%)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Congestion						2 (20%)

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

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat MALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
Hyperplasia, Lymphoid						2 (20%)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(9)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
Skeletal Muscle	(0)	(0)	(1)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
Cranial Nerve, Degeneration	2 (20%)					
Cranial Nerve, Gliosis	3 (30%)					1 (10%)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Foreign Body						1 (10%)
Inflammation, Chronic	3 (30%)					2 (20%)
Inflammation, Granulomatous	1 (10%)					
Metaplasia, Osseous	2 (20%)					1 (10%)
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic						3 (30%)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(10)	(10)	(10)	(10)	(10)
Harderian Gland	(10)	(10)	(10)	(8)	(10)	(10)
Infiltration Cellular, Lymphoid		1 (10%)				
Inflammation, Chronic		2 (20%)		2 (25%)		

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

**Experiment Number:** 96013-04  
**Test Type:** 90-DAY  
**Route:** GAVAGE  
**Species/Strain:** Rat/LONG-EVANS

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)**  
**Test Compound:** Melatonin  
**CAS Number:** 73-31-4

**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 08:48:08  
**First Dose M/F:** NA / NA  
**Lab:** BAT

<b>LONG-EVANS Rat MALE</b>	<b>0 UG/KG</b>	<b>5 UG/KG</b>	<b>50 UG/KG</b>	<b>5000 UG/KG</b>	<b>50,000 UG/KG</b>	<b>200,000 UG/KG</b>
Pigmentation		6 (60%)	5 (50%)	5 (63%)	4 (40%)	6 (60%)
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Mineralization	5 (50%)					5 (50%)
Nephropathy	3 (30%)					5 (50%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

\*\*\*END OF MALE DATA\*\*\*

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat FEMALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death			1			
Survivors						
Terminal Sacrifice	10	10	9	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic						1 (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)	(0)	(0)	(0)	(10)
Clear Cell Focus	1 (10%)					
Inflammation, Chronic	5 (50%)					5 (50%)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Acinus, Atrophy						1 (10%)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Tooth	(4)	(0)	(0)	(0)	(0)	(4)
Pulp, Malformation	4 (100%)					4 (100%)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

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

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat FEMALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(10)	(9)	(10)	(10)	(10)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Clitoral Gland	(10)	(0)	(1)	(0)	(0)	(10)
Ovary	(10)	(10)	(10)	(10)	(10)	(10)
Angiectasis		1 (10%)	1 (10%)			
Cyst	2 (20%)	4 (40%)	4 (40%)	4 (40%)	6 (60%)	4 (40%)
Mineralization						1 (10%)
Uterus	(10)	(10)	(10)	(10)	(10)	(10)
Dilatation	2 (20%)	5 (50%)	3 (30%)	5 (50%)	8 (80%)	8 (80%)
Metaplasia, Squamous		1 (10%)			1 (10%)	
Vagina	(0)	(0)	(1)	(0)	(0)	(0)
Cyst			1 (100%)			
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(1)	(0)	(0)	(10)
Myeloid Cell, Hyperplasia			1 (100%)			
Lymph Node	(0)	(0)	(1)	(0)	(0)	(0)
Lumbar, Hyperplasia, Plasma Cell			1 (100%)			
Lymph Node, Mandibular	(10)	(1)	(0)	(0)	(0)	(10)
Hyperplasia, Lymphoid		1 (100%)				
Lymph Node, Mesenteric	(10)	(0)	(1)	(0)	(0)	(10)

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

Experiment Number: 96013-04

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

Date Report Requested: 10/21/2014

Test Type: 90-DAY

Test Compound: Melatonin

Time Report Requested: 08:48:08

Route: GAVAGE

CAS Number: 73-31-4

First Dose M/F: NA / NA

Species/Strain: Rat/LONG-EVANS

Lab: BAT

LONG-EVANS Rat FEMALE	0 UG/KG	5 UG/KG	50 UG/KG	5000 UG/KG	50,000 UG/KG	200,000 UG/KG
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(1)	(0)	(0)	(10)
Skin	(10)	(0)	(1)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(1)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
Cranial Nerve, Degeneration	2 (20%)					1 (10%)
Pineal Gland, Inflammation	1 (10%)					
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Alveolar Epith, Hyperplasia	1 (10%)					
Inflammation, Chronic	3 (30%)					
Metaplasia, Osseous	2 (20%)					1 (10%)
Nose	(10)	(0)	(1)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(10)	(9)	(10)	(10)	(10)
Cornea, Inflammation, Chronic				1 (10%)		
Iris, Synechia				1 (10%)		
Retina, Dysplasia		1 (10%)				
Harderian Gland	(10)	(10)	(9)	(10)	(10)	(10)
Pigmentation	3 (30%)	4 (40%)	1 (11%)	4 (40%)	8 (80%)	6 (60%)
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)

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



**Experiment Number:** 96013-04  
**Test Type:** 90-DAY  
**Route:** GAVAGE  
**Species/Strain:** Rat/LONG-EVANS

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)**  
**Test Compound:** Melatonin  
**CAS Number:** 73-31-4

**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 08:48:09  
**First Dose M/F:** NA / NA  
**Lab:** BAT

<b>LONG-EVANS Rat FEMALE</b>	<b>0 UG/KG</b>	<b>5 UG/KG</b>	<b>50 UG/KG</b>	<b>5000 UG/KG</b>	<b>50,000 UG/KG</b>	<b>200,000 UG/KG</b>
Mineralization	6 (60%)					6 (60%)
Nephropathy	5 (50%)					8 (80%)
Renal Tubule, Hyperplasia						1 (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