

**Experiment Number:** 99920-98  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

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

**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

**CAS Number:** 57-63-6

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 09:38:23

**First Dose M/F:** NA / NA

**Lab:** NCTR

**C Number:** MG96006  
**Lock Date:** Not Entered.  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** NONE

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 Lab: NCTR

CD Rat MALE	F1	CONTROL	F1	2.0 PPB	F1	10 PPB	F1	50 PPB
<b>Disposition Summary</b>								
Animals Initially In Study		25		25		25		26
Early Deaths								
Moribund Sacrifice								1
Survivors								
Terminal Sacrifice		25		25		25		25
Animals Examined Microscopically		25		25		25		26
<b>ALIMENTARY SYSTEM</b>								
Esophagus		(0)		(0)		(0)		(1)
Liver		(25)		(1)		(1)		(26)
Hepatodiaphragmatic Nodule				1 (100%)		1 (100%)		3 (12%)
Infiltration Cellular, Lymphocyte		5 (20%)						
Inflammation, Chronic Active		6 (24%)						10 (38%)
Vacuolization Cytoplasmic								1 (4%)
Mesentery		(1)		(0)		(1)		(0)
Fat, Necrosis		1 (100%)				1 (100%)		
Oral Mucosa		(0)		(0)		(0)		(1)
Abscess								1 (100%)
Pancreas		(0)		(0)		(0)		(1)
<b>CARDIOVASCULAR SYSTEM</b>								
Blood Vessel		(0)		(0)		(0)		(1)
Heart		(0)		(0)		(0)		(1)
Cardiomyopathy								1 (100%)
<b>ENDOCRINE SYSTEM</b>								
Adrenal Cortex		(25)		(0)		(0)		(26)
Vacuolization Cytoplasmic		3 (12%)						1 (4%)
Adrenal Medulla		(25)		(0)		(0)		(26)
Pituitary Gland		(24)		(0)		(0)		(26)

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

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CD Rat MALE	F1	CONTROL	F1	2.0 PPB	F1	10 PPB	F1	50 PPB
Pars Distalis, Cyst								1 (4%)
Pars Distalis, Cyst, Multiple								2 (8%)
Thyroid Gland	(25)		(0)		(0)			(26)
Cyst, Squamous	2 (8%)							
Cyst, Squamous, Multiple	1 (4%)							1 (4%)
<b>GENERAL BODY SYSTEM</b>								
None								
<b>GENITAL SYSTEM</b>								
Coagulating Gland	(25)		(24)		(25)			(26)
Bilateral, Developmental Malformation	2 (8%)							1 (4%)
Developmental Malformation	4 (16%)		3 (13%)		2 (8%)			4 (15%)
Epididymis	(25)		(25)		(25)			(26)
Atrophy			3 (12%)		1 (4%)			
Epithelium, Degeneration					1 (4%)			
Hypospermia			3 (12%)		1 (4%)			1 (4%)
Infiltration Cellular, Lymphocyte	2 (8%)		2 (8%)		5 (20%)			
Preputial Gland	(3)		(2)		(3)			(1)
Atrophy	2 (67%)		1 (50%)		1 (33%)			
Bilateral, Atrophy					1 (33%)			
Infiltration Cellular, Lymphocyte			1 (50%)					
Inflammation, Suppurative	1 (33%)		1 (50%)					
Prostate, Dorsal/Lateral Lobe	(9)		(3)		(10)			(4)
Infiltration Cellular, Lymphocyte	3 (33%)		1 (33%)		5 (50%)			
Inflammation, Suppurative	6 (67%)		2 (67%)		5 (50%)			4 (100%)
Prostate, Dorsal/lateral Lobe	(16)		(22)		(15)			(22)
Prostate, Ventral Lobe	(25)		(25)		(25)			(26)
Infiltration Cellular, Lymphocyte	17 (68%)		16 (64%)		19 (76%)			17 (65%)
Inflammation, Suppurative	2 (8%)		1 (4%)					
Rete Testes	(25)		(23)		(24)			(25)

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CD Rat MALE	F1	CONTROL	F1	2.0 PPB	F1	10 PPB	F1	50 PPB
Dilatation			4	(17%)	2	(8%)		
Seminal Vesicle	(25)		(25)		(25)		(26)	
Depletion Secretory	2	(8%)			1	(4%)		
Testes	(25)		(25)		(25)		(26)	
Seminif Tub, Degeneration	2	(8%)	5	(20%)	3	(12%)	2	(8%)
HEMATOPOIETIC SYSTEM								
Bone Marrow	(25)		(0)		(0)		(26)	
Spleen	(25)		(0)		(0)		(26)	
Hematopoietic Cell Proliferation	1	(4%)						
Hyperplasia, Lymphoid							1	(4%)
Pigmentation	1	(4%)					4	(15%)
Thymus	(25)		(0)		(0)		(26)	
INTEGUMENTARY SYSTEM								
Mammary Gland	(25)		(24)		(25)		(26)	
Alveolus, Hyperplasia	1	(4%)	7	(29%)	11	(44%)	10	(38%)
Duct, Hyperplasia			1	(4%)	5	(20%)	10	(38%)
Skin	(0)		(0)		(0)		(1)	
MUSCULOSKELETAL SYSTEM								
Bone	(25)		(0)		(0)		(26)	
NERVOUS SYSTEM								
Brain	(0)		(0)		(0)		(1)	
Spinal Cord	(0)		(0)		(0)		(1)	
RESPIRATORY SYSTEM								
Lung	(0)		(0)		(0)		(1)	
Trachea	(0)		(0)		(0)		(1)	
SPECIAL SENSES SYSTEM								
None								

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CD Rat MALE	F1	CONTROL	F1	2.0 PPB	F1	10 PPB	F1	50 PPB
URINARY SYSTEM								
Kidney		(25)		(2)		(25)		(26)
Congestion		2 (8%)		1 (50%)				2 (8%)
Cortex, Cyst		4 (16%)		1 (50%)		3 (12%)		1 (4%)
Cortex, Cyst, Multiple								1 (4%)
Developmental Malformation				1 (50%)				
Hyaline Droplet		4 (16%)				1 (4%)		5 (19%)
Infiltration Cellular, Lymphocyte		18 (72%)		1 (50%)		12 (48%)		17 (65%)
Inflammation, Chronic		1 (4%)				1 (4%)		1 (4%)
Interstitial, Fibrosis		4 (16%)						1 (4%)
Renal Tubule, Degeneration								1 (4%)
Renal Tubule, Dilatation		9 (36%)				6 (24%)		11 (42%)
Renal Tubule, Hyperplasia						1 (4%)		1 (4%)
Renal Tubule, Mineralization								9 (35%)
Renal Tubule, Regeneration		9 (36%)				4 (16%)		13 (50%)
Urinary Bladder		(0)		(0)		(0)		(1)

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

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CD Rat FEMALE	F1	CONTROL	F1	2.0 PPB	F1	10 PPB	F1	50 PPB
<b>Disposition Summary</b>								
Animals Initially In Study		25		25		25		25
Early Deaths								
Survivors								
Terminal Sacrifice		25		25		25		25
Animals Examined Microscopically		25		25		25		25
<b>ALIMENTARY SYSTEM</b>								
Liver		(25)		(0)		(0)		(25)
Basophilic Focus, Multiple								1 (4%)
Developmental Malformation		1 (4%)						2 (8%)
Inflammation, Chronic Active		5 (20%)						1 (4%)
<b>CARDIOVASCULAR SYSTEM</b>								
None								
<b>ENDOCRINE SYSTEM</b>								
Adrenal Cortex		(25)		(0)		(0)		(25)
Hypertrophy, Focal								1 (4%)
Adrenal Medulla		(25)		(0)		(0)		(25)
Pituitary Gland		(25)		(0)		(0)		(25)
Thyroid Gland		(25)		(1)		(0)		(25)
Ectopic Thymus				1 (100%)				
Ultimobranchial Cyst		2 (8%)						1 (4%)
<b>GENERAL BODY SYSTEM</b>								
None								
<b>GENITAL SYSTEM</b>								
Clitoral Gland		(1)		(2)		(0)		(1)
Cyst								1 (100%)
Distended		1 (100%)		2 (100%)				

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Inflammation, Chronic Active	1 (100%)		2 (100%)					
Ovary	(25)		(25)		(25)		(25)	
Asynchrony					1 (4%)			
Corpus Luteum, Cyst	1 (4%)						1 (4%)	
Cyst					1 (4%)		1 (4%)	
Diestrus	9 (36%)		6 (24%)		6 (24%)		11 (44%)	
Estrus	4 (16%)		2 (8%)		6 (24%)		3 (12%)	
Follicle, Cyst	1 (4%)							
Hyperplasia, Sertoliform							3 (12%)	
Metestrus	5 (20%)		7 (28%)		6 (24%)		3 (12%)	
Proestrus	7 (28%)		10 (40%)		6 (24%)		8 (32%)	
Rete Ovarii, Dilatation							1 (4%)	
Oviduct	(25)		(25)		(25)		(25)	
Uterus	(25)		(25)		(25)		(25)	
Cyst					1 (4%)			
Diestrus	9 (36%)		6 (24%)		7 (28%)		11 (44%)	
Estrus	4 (16%)		3 (12%)		6 (24%)		3 (12%)	
Metestrus	5 (20%)		6 (24%)		6 (24%)		3 (12%)	
Proestrus	7 (28%)		10 (40%)		6 (24%)		8 (32%)	
Vagina	(24)		(25)		(25)		(25)	
Diestrus	10 (42%)		6 (24%)		5 (20%)		11 (44%)	
Estrus	4 (17%)		4 (16%)		6 (24%)		6 (24%)	
Metestrus	4 (17%)		7 (28%)		8 (32%)		3 (12%)	
Proestrus	6 (25%)		8 (32%)		6 (24%)		5 (20%)	
HEMATOPOIETIC SYSTEM								
Bone Marrow	(25)		(0)		(0)		(25)	
Spleen	(25)		(0)		(0)		(25)	
Pigmentation	2 (8%)						2 (8%)	
Thymus	(25)		(0)		(0)		(25)	

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<b>INTEGUMENTARY SYSTEM</b>								
Mammary Gland		(25)		(25)		(25)		(25)
Alveolus, Hyperplasia		5 (20%)		6 (24%)		5 (20%)		5 (20%)
<b>MUSCULOSKELETAL SYSTEM</b>								
Bone		(25)		(0)		(0)		(25)
<b>NERVOUS SYSTEM</b>								
None								
<b>RESPIRATORY SYSTEM</b>								
None								
<b>SPECIAL SENSES SYSTEM</b>								
Eye		(0)		(0)		(1)		(1)
Bilateral, Cataract								1 (100%)
Cornea, Edema						1 (100%)		
<b>URINARY SYSTEM</b>								
Kidney		(25)		(25)		(25)		(25)
Cortex, Cyst				3 (12%)				6 (24%)
Infarct				1 (4%)				
Nephropathy						1 (4%)		
Pelvis, Dilatation		1 (4%)		1 (4%)				
Renal Tubule, Mineralization		21 (84%)		18 (72%)		21 (84%)		17 (68%)

**\*\* END OF REPORT \*\***

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