

**Experiment Number:** 99920-96  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 12:00:33  
**First Dose M/F:** NA / NA  
**Lab:** NCTR

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

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 Lab: NCTR

CD Rat Male F3 CONTROL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
	ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		1	1	1	1	1	1	2	2	2	2	3	3	3	3	2	2	2	2	3	3	1	5	5		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	9		
		3	3	3	3	3	3	7	7	7	7	8	1	2	2	2	2	6	6	6	6	7	0	0		
		0	1	2	3	4	5	6	7	8	9	0	9	0	1	2	3	5	6	7	8	9	0	1	2	

**Alimentary System**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Infiltration Cellular, Lymphocyte				1													1	1	1						4 1.0
Inflammation, Chronic Active	1	1		1			1				1			1					1			1	1		9 1.0

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Vacuolization Cytoplasmic										2											2				2 2.0
Adrenal Medulla	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pars Distalis, Cyst																							X		1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst, Squamous							X	X				X											X		4
Infiltration Cellular, Lymphocyte			1																						1 1.0

**General Body System**

NONE

**Genital System**

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Developmental Malformation			X		X																				2

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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CD Rat Male F3 CONTROL	DAY ON TEST																								ANIMAL ID		*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0		
	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	2	2	2	2	3	3	1	5	5	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	0		
	3	3	3	3	3	3	7	7	7	7	8	1	2	2	2	2	6	6	6	6	7	0	0	0	0		
	0	1	2	3	4	5	6	7	8	9	0	9	0	1	2	3	5	6	7	8	9	0	1	2			
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Infiltration Cellular, Lymphocyte																								1	1.0		
Prostate, Dorsal/Lateral Lobe	+		+	+	+			+	+	+					+	+	+		+	+		+	+	25			
Infiltration Cellular, Lymphocyte												1	1											2	1.0		
Inflammation, Suppurative			1				1				1			1			1			1			2	7	1.1		
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Infiltration Cellular, Lymphocyte			2	2		1	1	1	1		2	1	1		1	2	1		1	1		1	2	1	17	1.3	
Inflammation, Suppurative												2												1	2.0		
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Seminif Tub, Degeneration					1							1												2	1.0		
<b>Hematopoietic System</b>																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Myeloid Cell, Hyperplasia																								2	1	2.0	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Hyperplasia, Lymphoid																								2	1	2.0	
Pigmentation																								1	1	1.0	
Thymus	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24			
Congestion					2																			1	2.0		
<b>Integumentary System</b>																											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
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 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
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Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:34  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/2PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	1	1	2	2	1	1	1	2	2	3	1	1	1	2	1	1	2	1	1	1	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	9
	3	3	3	3	4	4	8	8	8	8	8	8	2	2	2	2	2	2	7	7	7	7	7	0	
	6	7	8	9	0	1	1	2	3	4	5	6	4	5	6	7	8	9	1	2	3	4	5	6	3
																								<b>*TOTALS</b>	

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Bilateral, Developmental Malformation																			X						1
Developmental Malformation								X	X		X	X								X	X		X		7
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Atrophy						3	3																		3 3.0
Hypospermia						4	4																		3 4.0
Infiltration Cellular, Lymphocyte					1						1														2 1.0
Prostate, Dorsal/Lateral Lobe	+	+	+	+	+			+	+	+	+	+	+		+	+		+				+	+	25	
Infiltration Cellular, Lymphocyte			1	1															1						3 1.0
Inflammation, Suppurative	1				1									1					1	1	2	1		1	9 1.1
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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CD Rat Male F3/2PPB TO CTRL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	*TOTALS
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
		1	1	1	1	1	1	2	2	1	1	1	2	2	3	1	1	1	2	1	1	2	1	1	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	0	
		3	3	3	3	4	4	8	8	8	8	8	2	2	2	2	2	7	7	7	7	7	7	0		
		6	7	8	9	0	1	1	2	3	4	5	6	4	5	6	7	8	9	1	2	3	4	5	0	
Infiltration Cellular, Lymphocyte		2	2	2	1	2	1	1	1	1	1	1				1	1	1			1	2	1		17	1.3
Rete Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Dilatation							3					2		1											3	2.0
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminif Tub, Degeneration					3	4	4							4									1		5	3.2
<b>Hematopoietic System</b>																										
NONE																										
<b>Integumentary System</b>																										
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia			3	1					1	2				2											5	1.8
Duct, Hyperplasia																2									1	2.0
<b>Musculoskeletal System</b>																										
NONE																										
<b>Nervous System</b>																										
NONE																										
<b>Respiratory System</b>																										
NONE																										
<b>Special Senses System</b>																										

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 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Male F3/10PPB TO CTRL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	*TOTALS	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0		
		1	1	1	1	2	2	0	1	1	2	1	1	1	2	1	2	1	2	1	1	4	5	5	5	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0		
		4	4	4	4	8	8	8	9	3	3	3	3	3	3	7	7	7	8	8	8	0	0	0	0	0		
		2	3	4	5	7	8	9	0	0	1	2	3	4	5	7	8	9	0	1	2	3	4	5	6	7	0	
Prostate, Dorsal/Lateral Lobe		+	+	+		+		+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	25			
Inflammation, Suppurative		1			3		1		2					3	1		2			1					8	1.8		
Prostate, Ventral Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Infiltration Cellular, Lymphocyte			1	2	1	1	1		1		1	1		2	1				1	1		2	1		14	1.2		
Rete Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Depletion Secretory		3																							1	3.0		
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Seminif Tub, Degeneration					1						1														2	1.0		
<b>Hematopoietic System</b>																												
NONE																												
<b>Integumentary System</b>																												
Mammary Gland		+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24			
Alveolus, Hyperplasia																			1	2		3		2	4	2.0		
Duct, Hyperplasia						1							1			1									3	1.0		
<b>Musculoskeletal System</b>																												
NONE																												
<b>Nervous System</b>																												
NONE																												
<b>Respiratory System</b>																												

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 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/50PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	1	1	1	2	2	1	1	1	1	2	2	1	1	1	2	2	1	1	1	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8
	4	4	4	4	5	5	5	9	9	9	9	9	9	3	3	3	3	4	4	8	8	8	8	8	
	6	7	8	9	0	1	2	1	2	3	4	5	6	6	7	8	9	0	1	4	5	6	7	8	9
																								<b>*TOTALS</b>	

NONE																									
<b>Genital System</b>																									
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Bilateral, Developmental Malformation																			X						1
Developmental Malformation	X		X			X				X	X	X							X		X				8
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Atrophy		3																							1 3.0
Hypospermia		4																							1 4.0
Preputial Gland					+																				1
Duct, Dilatation					3																				1 3.0
Inflammation, Suppurative					4																				1 4.0
Prostate, Dorsal/Lateral Lobe	+	+	+	+	+	+	+		+		+		+					+		+	+	+	+	+	25
Infiltration Cellular, Lymphocyte												1													1 1.0
Inflammation, Suppurative							1		3				1	2	2	3		1					2		8 1.9
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Infiltration Cellular, Lymphocyte	1		4	1	3	2	2	1			2	2		1		2		2	1	2	2	2			16 1.9
Inflammation, Suppurative									2																1 2.0
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Dilatation		3												1											2 2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Depletion Secretory	3																								1 3.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:35  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/50PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	1	1	1	2	2	1	1	1	1	2	2	1	1	1	2	2	1	1	1	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8
	4	4	4	4	5	5	5	9	9	9	9	9	9	3	3	3	3	4	4	8	8	8	8	8	
	6	7	8	9	0	1	2	1	2	3	4	5	6	6	7	8	9	0	1	4	5	6	7	8	9
																								<b>*TOTALS</b>	

Seminif Tub, Degeneration	4																							1	4.0				
<b>Hematopoietic System</b>																													
Bone Marrow	+ +																							25					
Myeloid Cell, Hyperplasia																								1	1	2	1.0		
Spleen	+ +																							25					
Hyperplasia, Lymphoid																								2		1	2	1.5	
Pigmentation	1 1																							1		3	1.0		
Thymus	+ +																							25					
<b>Integumentary System</b>																													
Mammary Gland	+ +																							24					
Alveolus, Hyperplasia	2																							2	3	2	7	2.0	
Duct, Hyperplasia																								2		2	1	1	2.0
<b>Musculoskeletal System</b>																													
Bone	+ +																							25					
<b>Nervous System</b>																													
NONE																													
<b>Respiratory System</b>																													
NONE																													
<b>Special Senses System</b>																													

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:35  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/50PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	1	1	1	2	2	1	1	1	1	2	2	1	1	1	2	2	1	1	1	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8
	4	4	4	4	5	5	5	9	9	9	9	9	9	3	3	3	3	4	4	8	8	8	8	8	
	6	7	8	9	0	1	2	1	2	3	4	5	6	6	7	8	9	0	1	4	5	6	7	8	9
	<b>*TOTALS</b>																								

NONE  
**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Casts Protein												2													1 2.0
Hyaline Droplet						1																		2	2 1.5
Infiltration Cellular, Lymphocyte	1	1	1	1			1	1			1	1	1	1		2	1	2		1	1	1	1	1	19 1.1
Interstitial, Fibrosis																1						1			2 1.0
Renal Tubule, Dilatation							3		1				3	2										2 2	6 2.2
Renal Tubule, Regeneration	2			1							1		2	1	1			1					1		9 1.2

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

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:35  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3 CONTROL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	1	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	2	2	2	1	1	5	5	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	
	0	0	1	1	1	5	5	5	5	5	5	9	9	9	0	0	0	4	4	4	4	4	9	9	
	8	9	0	1	2	3	4	5	6	7	8	7	8	9	0	1	2	2	3	4	5	6	0	1	2
	<b>*TOTALS</b>																								

**Alimentary System**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Developmental Malformation				X																					1

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst											X												X		2
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

**General Body System**

NONE

**Genital System**

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Corpus Luteum, Cyst											X														1
Cyst					X													X							2
Diestrus			X	X		X		X			X		X	X		X					X		X		10
Estrus					X		X									X				X			X		5
Metestrus	X								X	X					X				X		X				6

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:36  
 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Female F3 CONTROL	DAY ON TEST																								*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Proestrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Oviduct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Uterus	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	25
Diestrus	1	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	2	2	2	1	1	5	5	8
Estrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Metestrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Proestrus	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	4
Vagina	0	0	1	1	1	5	5	5	5	5	5	9	9	9	0	0	0	4	4	4	4	4	9	9	10
Diestrus	8	9	0	1	1	3	4	5	6	7	8	7	8	9	0	1	2	2	2	1	1	5	5	2	4
Estrus			X			X	X				X	X					X			X		X			3
Metestrus					X					X	X						X			X		X			8
Proestrus				X								X	X					X							4
Hematopoietic System																									
Bone Marrow																									25
Pigmentation					4																				1 4.0
Spleen																									25
Congestion					3																				1 3.0
Pigmentation					1								2					1					1		4 1.3
Thymus																									25
Integumentary System																									
Mammary Gland																									25
Alveolus, Hyperplasia			1	2	2		2	4		1						1					1	1			9 1.7

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked







Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:36  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/2PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8
	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	4	4	4	5	5	5	9
	3	4	5	6	7	8	9	0	1	2	3	4	3	4	5	6	7	7	8	9	0	1	2	3	4	4
	<b>*TOTALS</b>																									

NONE  
**Respiratory System**

NONE  
**Special Senses System**

NONE  
**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cortex, Cyst																										1
Renal Tubule, Mineralization	1		1		1	2	1		1	1			3	1	1	1	2	1		2	1	1	1	1	1	19 1.3

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:36  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/10PPB TO CTRL**

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	6	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	1	1	1	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	1	2	2	2	2	6	6	6	6	6	0	0	1	1	1	5	5	5	5	5	5	9	9	9	
	9	0	1	2	3	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	5	6	7	8	
																									<b>*TOTALS</b>
Proestrus		X		X					X		X		X		X		X		X		X	X		10	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus					X								X		X									3	
Estrus						X	X					X	X				X			X			X	7	
Metestrus	X		X						X	X	X				X							X		7	
Proestrus		X		X				X		X						X	X	X				X		8	
<b>Hematopoietic System</b>																									
NONE																									
<b>Integumentary System</b>																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia		4	2	1		2	2	1	2	1		1				1				1				11 1.6	
Lactation									X															1	
Lobules, Hyperplasia		3	1			1	1		1			1												6 1.3	
<b>Musculoskeletal System</b>																									
NONE																									
<b>Nervous System</b>																									
NONE																									
<b>Respiratory System</b>																									
NONE																									

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:37  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPB TO CTRL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8
	2	2	2	2	2	2	7	7	7	7	7	7	7	1	1	1	1	1	5	6	6	6	6	6	9
	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	9	
																								<b>*TOTALS</b>	

**Alimentary System**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Inflammation, Chronic Active																		1	1						2 1.0

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Keratin Cyst										X													X		2

**General Body System**

NONE

**Genital System**

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus			X								X	X										X			4
Estrus				X	X		X						X	X										X	6
Metestrus								X	X								X				X				4
Proestrus	X		X			X				X		X			X	X		X			X	X			11
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99920-96  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:00:37  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPB TO CTRL**

	DAY ON TEST																									
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	1	1	1	1	0	0	1	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	1	1	5	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	9	9	
																										<b>*TOTALS</b>
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus		X										X								X					3	
Estrus				X	X		X						X	X									X		6	
Metestrus								X	X		X						X				X				5	
Proestrus	X		X			X				X			X	X			X	X		X			X	X	11	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus			X					X				X									X				4	
Estrus				X	X		X							X										X	5	
Metestrus									X	X				X			X			X			X		5	
Proestrus	X		X			X				X			X	X			X	X		X			X	X	11	
<b>Hematopoietic System</b>																										
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pigmentation																								2	1 2.0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
<b>Integumentary System</b>																										
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia	1	1			1	2			1			2			1					2	1				9 1.3	
Lobules, Hyperplasia					1	2	1		3	1	1			1						2					8 1.5	
Skin																								+	1	
Inflammation, Chronic, Focal																							2		1 2.0	

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