

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethiny Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:50

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

Experiment Number: 99920-95

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:50

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F4 CONTROL	DAY ON TEST																				
		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
		6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6
		1	1	0	0	1	1	0	0	9	2	1	1	0	2	2	1	2	0	2	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		6	6	6	6	0	0	0	0	4	4	4	5	5	8	9	9	9	9	2	2
		1	2	3	4	4	5	6	7	8	7	8	9	0	1	9	0	1	2	3	4

*TOTALS

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cyst															X						1	
Infiltration Cellular, Lymphocyte																1						1
Inflammation, Chronic Active	1	1	1	1	1																	1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Accessory Adrenal Cortical Nodule																						1
Vacuolization Cytoplasmic															1	1	2					4 1.3
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cyst, Squamous	X	X														X	X	X	X			6

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Bilateral, Developmental Malformation																			X			1

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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Species/Strain: Rat/CD

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Time Report Requested: 12:59:51

First Dose M/F: NA / NA

Lab: NCTR

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	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
	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	0	0	1	1	0	0	9	2	1	1	1	0	2	2	1	2	0	2	5	4	2
	0	0	0	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
	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	0	0	0	0	0	4	4	4	5	5	8	9	9	9	9	2	2	3
	1	2	3	4	4	5	6	7	8	7	8	9	0	1	9	0	1	2	3	4	1	2	3

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

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

± .. Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X - Lesion present

A. Autolysis precludes evaluation

1) Minimal 3) Moderate

I Insufficient tissue

BLANK Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-95

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Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:51

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F4/2PPB 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
	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
	1	1	1	1	1	1	2	2	2	2	1	2	2	2	2	2	1	1	5	4
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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	6	6	6	6	6	6	7	0	1	1	1	1	5	5	5	5	9	9	2	2
	5	6	7	8	9	0	9	0	1	2	3	2	3	4	5	6	5	6	7	8
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Seminif Tub, Degeneration																				1
Hematopoietic System																				3 1.0
NONE																				
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Alveolus, Hyperplasia																				5 2.2
Musculoskeletal System																				
NONE																				
Nervous System																				
Respiratory System																				
NONE																				
Special Senses System																				
NONE																				
Urinary System																				
NONE																				

*TOTALS

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CAS Number: 57-63-6

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F4/10PPB TO CTRL**

DAY ON TEST	0 0																																							
	0 1																																							
7 6																																								
2 1 1 1 1 0 0 2 2 1 1 0 0 2 2 1 1 0 2 2 2 1 5 4 4 4																																								
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																

TOTALS*Alimentary System**

Esophagus	+	1
Liver	+	2
Bile Duct, Hyperplasia	3	1 3.0
Hepatocyte, Degeneration	4	1 4.0
Hepatocyte, Necrosis	3	1 3.0
Hepatodiaphragmatic Nodule	X	1
Infiltration Cellular, Lymphocyte	4	1 4.0
Pancreas	+	1
Acinar Cell, Degeneration	4	1 4.0
Infiltration Cellular, Lymphocyte	4	1 4.0

Cardiovascular System

Blood Vessel	+	1
Heart	+	1

Endocrine System

Adrenal Cortex	+	1
Adrenal Medulla	+	1
Pituitary Gland	+	2
Pars Distalis, Cyst	X	1
Thyroid Gland	M	0

General Body System

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Lab: NCTR

CD Rat Male F4/10PPB TO CTRL

***TOTALS**

NONE

Genital System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate
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Experiment Number: 99920-95

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Route: DOSED FEED

Species/Strain: Rat/CD

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CAS Number: 57-63-6

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F4/10PPB TO CTRL**

CD Rat Male F4/10PPB TO CTRL	DAY ON TEST	0 0																				
		0 1																				
		7 6																				
		2 1 1 1 1 0 0 2 2 1 1 0 0 2 2 1 1 0 2 2 2 1 5 4 4 4																				
		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																				
ANIMAL ID		9 9 9 9 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																				
		1 7 7 7 7 7 1 1 1 1 1 1 1 1 5 5 5 6 6 9 0 0 0 1 2																				
		4 1 2 3 4 5 6 4 5 6 7 8 9 7 8 9 0 1 9 0 1 2 9 0 1 2																				
		*TOTALS																				
Spleen	+																					
Congestion	3																					
Hyperplasia, Lymphoid	3																					
Thymus	+																					
Atrophy	4																					
Integumentary System																						
Mammary Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia																						5 2.0
Duct, Hyperplasia																						2 1.0
Skin	+																					1
Musculoskeletal System																						
Bone	+																					1
Nervous System																						
Brain	+																					1
Spinal Cord	+																					1
Respiratory System																						
Lung	+																					1
Infiltration Cellular, Histiocyte	2																					1 2.0
Peribronchiolar, Infiltration Cellular, Lymphocyte	4																					1 4.0
Trachea	+																					1

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Test Compound: ENDOCRINE DISRUPTOR(Ethiny Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:52

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F4/10PPB 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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
2	1	1	1	1	0	0	2	2	1	1	0	0	2	2	1	1	0	2	2	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	1	7	7	7	7	7	1	1	1	1	1	1	5	5	5	6	6	9	0	0
	4	1	2	3	4	5	6	4	5	6	7	8	9	7	8	9	0	1	9	0

*TOTALS

Special Senses System

NONE

Urinary System

Kidney	+	1
Infiltration Cellular, Lymphocyte	4	1 4.0
Interstitial, Fibrosis	2	1 2.0
Urinary Bladder	+	1

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F4/50PPB 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
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
1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	0	3	2	1	1	4
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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	7	7	7	8	8	8	2	2	2	2	2	6	6	6	6	0	0	0	0	3
	7	8	9	0	1	2	0	1	2	3	4	5	2	3	4	5	6	5	6	7

TOTALS*Alimentary System**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Bile Duct, Hyperplasia																				1	1.0
Infiltration Cellular, Lymphocyte																				1	1.0
Inflammation, Chronic Active																				10	1.1
Vacuolization Cytoplasmic																				1	1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Vacuolization Cytoplasmic																				2	1.5
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pars Distalis, Cyst																				2	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cyst, Squamous	X	X		X																4	

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
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* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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Lab: NCTR

**CD Rat Male
F4/50PPB TO CTRL**

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	
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
1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	0	3	2	1	1	4	2
0	0	0	0	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
9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
7	7	7	7	8	8	8	2	2	2	2	2	2	6	6	6	6	0	0	0	3	3
7	8	9	0	1	2	0	1	2	3	4	5	2	3	4	5	6	3	4	5	6	7
X																					1
Developmental Malformation																					10
Epididymis																					25
Atrophy																					2
Hypospermia																					4
Prostate, Dorsal/Lateral Lobe																					25
Inflammation, Suppurative																					6
Prostate, Ventral Lobe																					1.2
Infiltration Cellular, Lymphocyte																					25
Rete Testes																					25
Dilatation																					2
Seminal Vesicle																					25
Testes																					4
Seminif Tub, Degeneration																					1
Hematopoietic System																					4.0
Bone Marrow																					25
Spleen																					25
Hyperplasia, Lymphoid																					1
Thymus																					25
Integumentary System																					2
Mammary Gland																					25
Alveolus, Hyperplasia																					7
																					1.9

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Lab: NCTR

**CD Rat Female
F4 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	
	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	5	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	1	0	0	9	0	0	0	9	9	0	0	0	0	1	0	0	0	0	2	2	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	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	1	1	1
	4	4	4	4	4	8	8	8	8	8	2	2	2	2	6	6	6	7	7	0	0	3
	0	1	2	3	4	3	4	5	6	7	6	7	8	9	7	8	9	0	1	2	8	9
Diestrus		X	X	X	X		X														X	6
Estrus					X	X															X	7
Follicle, Cyst																					X	1
Metestrus											X				X						X	4
Proestrus			X				X					X	X	X	X	X	X	X	X	X	X	8
Oviduct		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Uterus		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus			X	X	X		X														X	5
Estrus					X	X															X	7
Metestrus			X					X				X			X						X	5
Proestrus			X				X				X	X	X	X	X	X	X	X	X	X	X	8
Vagina		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus		X	X	X	X		X															5
Estrus					X	X					X	X	X	X	X	X	X	X	X	X	X	8
Metestrus							X				X			X							X	5
Proestrus			X				X				X	X	X	X	X	X	X	X	X	X	X	7
Hematopoietic System																						
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Thymus		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Integumentary System																						
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Diacetate)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:52

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female F4 CONTROL	DAY ON TEST	0 0																					
		1 1																					
ANIMAL ID	6 6 6 6 5 6 6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6																						
	1 1 0 0 9 0 0 0 9 9 0 0 0 0 1 0 0 0 0 0 2 2 5 4																						
Alveolus, Hyperplasia	1	1	1	1	2	2	2	1	1	1	2								3	3	11	1.7	
Lobules, Hyperplasia					1			1											1	1	4	1.0	
Musculoskeletal System																							
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Nervous System																							
NONE																							
Respiratory System																							
NONE																							
Special Senses System																							
NONE																							
Urinary System																							
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cortex, Cyst				X			X															2	
Renal Tubule, Mineralization	1	2	1		1	1	2	2	2	3	1	1	1	1	1	2	3	2	1	1	1	2	3

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Diacetate)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:53

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F4/2PPB 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
ANIMAL ID	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	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	1
4	4	4	4	4	4	8	8	9	9	9	3	3	3	3	3	7	7	7	7	1
5	6	7	8	9	8	9	0	1	2	3	0	1	2	3	4	5	3	4	5	6
																				*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst																				1
Diestrus		X							X								X	X	X	7
Estrus	X	X	X	X			X	X		X	X					X	X	X	X	11
Metestrus					X			X				X								3
Proestrus					X							X	X				X			4
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus		X						X					X				X	X	X	6
Estrus	X	X	X	X			X	X		X	X			X		X	X	X		11
Metestrus					X			X			X					X				4

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:53

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F4/2PPB 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
ANIMAL ID	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	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	8	8	9	9	9	3	3	3	3	3	7	7	7	7	1
	5	6	7	8	9	8	9	0	1	2	3	0	1	2	3	4	5	3	4	5

***TOTALS**

NONE

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Nephropathy																			1	1	1.0
Renal Tubule, Mineralization	2	1	1	1	1	1	1	1	2	1	1	1	3	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

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-95

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: 12:59:53

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F4/10PPB TO CTRL**

Alimentary System

Esophagus	+	1
Liver	+	1
Pancreas	+	1

Cardiovascular System

Blood Vessel + 1
Heart + 1

Endocrine System

Adrenal Cortex	+	+	2
Adrenal Medulla	+	+	2
Pituitary Gland	+		1
Thyroid Gland	+		1

General Body System

NONE

Genital System

Clitoral Gland	M		0
Ovary	+	+	26
Diestrus	X	X	9
Estrus	X	X	2
Metestrus		X	3

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

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Diacetate)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:53

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F4/10PPB TO CTRL

	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		9	6	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
		3	1	1	0	9	9	0	0	0	0	1	1	1	1	1	2	2	2	1	1	4	
		0	0	0	0	0	0	0	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	
		9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	
		1	5	5	5	5	5	9	9	9	9	3	3	3	3	4	7	7	8	8	8	1	
		5	0	1	2	3	4	4	5	6	7	8	6	7	8	9	0	1	8	9	0	1	
Proestrus		X	X		X	X	X		X							X	X	X	X	X	X	12	
Oviduct		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Uterus		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Diestrus		X		X		X	X		X		X		X		X		X		X		X	7	
Estrus				X							X											2	
Metestrus						X			X			X		X								X	5
Proestrus		X	X		X	X	X		X			X		X		X	X	X	X	X	X	12	
Vagina		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Diestrus		X		X		X	X		X		X		X		X		X		X		X	7	
Estrus				X		X			X		X		X				X				X	4	
Metestrus						X			X		X		X									X	5
Proestrus		X	X		X	X	X		X			X		X		X	X	X	X	X	X	10	
Hematopoietic System																							
Bone Marrow		+																				1	
Lymph Node		+																				1	
Lymph Node, Mandibular		+																				1	
Spleen		+																				2	
Thymus		+																				1	
Integumentary System																							
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Alveolus, Hyperplasia																						7 1.1	
Lobules, Hyperplasia																						2 1.5	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:53

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F4/10PPB 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	
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	
	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
	1	5	5	5	5	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
	5	0	1	2	3	4	4	5	6	7	8	6	7	8	9	0	1	8	9	0	
Skin	+																				1
Musculoskeletal System																					
Bone	+																				1
Nervous System																					
Brain	+																				1
Spinal Cord	M																				0
Respiratory System																					
Lung	+																				1
Trachea	+																				1
Special Senses System																					
NONE																					
Urinary System																					
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Cyst																X					1
Nephropathy																1					1 1.0
Renal Tubule, Mineralization	2	2	2	2	2	1	1	1	1	3						3	2	2	1	1	19 1.7
Urinary Bladder	M																				0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-95

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethynodiol Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:59:54

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F4/50PPB TO CTRL

DAY ON TEST																					*TOTALS
	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	
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	1	1	1	0	0	0	1	1	0	0	1	1	0	0	1	1	1	1	4	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
	5	5	5	5	5	6	9	0	0	0	4	4	4	4	8	8	8	8	1	1	
	5	6	7	8	9	0	9	0	1	2	3	2	3	4	5	6	4	5	6	7	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus	X	X	X		X			X												X	7
Estrus															X					X	2
Metestrus		X			X			X	X		X										7
Proestrus				X		X	X			X						X	X	X	X	X	9
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus	X	X	X		X		X				X									X	7
Estrus				X		X	X			X				X						X	5
Metestrus							X	X		X		X								X	5
Proestrus	X			X					X				X		X	X	X	X		X	8
Hematopoietic System																					
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia	1	2	2	1	1	2				1		2	1								9 1.4
Lobules, Hyperplasia				1	2	1				1											4 1.3
Musculoskeletal System																					
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

