

Experiment Number: 99920-98
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: 09:39:36
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: 99920-98
 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: 09:39:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	
	6	6	6	6	6	6	0	0	0	0	0	4	4	4	5	5	8	9	9	9	9	3	3	3	3	
	4	5	6	7	8	9	5	6	7	8	9	7	8	9	0	1	9	0	1	2	3	1	2	3	4	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Infiltration Cellular, Lymphocyte			1	1		1				1												1			5	1.0
Inflammation, Chronic Active					1					1					1	1		1		1					6	1.0
Mesentery															+										1	
Fat, Necrosis															4										1	4.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Vacuolization Cytoplasmic				1													1		1						3	1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	24	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cyst, Squamous				X																			X		2	
Cyst, Squamous, Multiple																							X		1	

General Body System

NONE

Genital System

Coagulating 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

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-98
 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: 09:39:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 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		25
	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		25
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		25	
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0		25	
	6	6	6	6	6	6	0	0	0	0	0	4	4	4	5	5	8	9	9	9	9	3	3	0		25	
	4	5	6	7	8	9	5	6	7	8	9	0	1	9	0	1	2	3	1	2	3	4	4	0		25	
Bilateral, Developmental Malformation										X	X															2	
Developmental Malformation					X		X								X							X				4	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Infiltration Cellular, Lymphocyte	1	1																								2 1.0	
Preputial Gland												+										+	+			3	
Atrophy																						1	2			2 1.5	
Inflammation, Suppurative											2															1 2.0	
Prostate, Dorsal/Lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Infiltration Cellular, Lymphocyte	1												1					2								3 1.3	
Inflammation, Suppurative		1							1					4	1			1		2						6 1.7	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Infiltration Cellular, Lymphocyte	1	2	1	1	2	1	2	2			1		1	1		2		1	4		2	4				17 1.7	
Inflammation, Suppurative																		1					1			2 1.0	
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Depletion Secretory															3			3								2 3.0	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Seminif Tub, Degeneration	1							2																		2 1.5	
Hematopoietic System																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			25	
Hematopoietic Cell Proliferation																2										1 2.0	

* ..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: 99920-98
 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: 09:39:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 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	1	0	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	6	0	0	
	1	1	1	1	1	1	2	1	1	1	1	2	2	2	1	1	3	2	2	2	1	3	2	0	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	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	0	0
	6	6	6	6	6	6	0	0	0	0	0	4	4	4	5	5	8	9	9	9	9	3	3	3	3	0	0	
	4	5	6	7	8	9	5	6	7	8	9	7	8	9	0	1	9	0	1	2	3	1	2	3	4	0	0	
Pigmentation	1																								1	1.0		
Thymus	+																								25			
Integumentary System																												
Mammary Gland	+																								25			
Alveolus, Hyperplasia																									3	1 3.0		
Musculoskeletal System																												
Bone	+																								25			
Nervous System																												
NONE																												
Respiratory System																												
NONE																												
Special Senses System																												
NONE																												
Urinary System																												
Kidney	+																								25			
Congestion																									2	2 2.0		
Cortex, Cyst	X																								4			
Hyaline Droplet	1																								4	1.3		
Infiltration Cellular, Lymphocyte	1	2		1	1			1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1.1	

* ..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: 99920-98

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: 09:39:36

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 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	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	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	6										
	1	1	1	1	1	1	2	1	1	1	1	1	2	2	2	1	1	3	2	2	2	1	3	2	0	2											
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	0	0										
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4										
	6	6	6	6	6	6	0	0	0	0	0	4	4	4	4	5	5	8	9	9	9	9	9	3	3	3	3										
	4	5	6	7	8	9	5	6	7	8	9	7	8	9	0	1	9	0	1	2	3	1	2	3	4	4											
																									*TOTALS												
Inflammation, Chronic																									2	1	2.0										
Interstitial, Fibrosis	2																									1	1	1	4	1.3							
Renal Tubule, Dilatation																									2	2	2	1	1	2	1	2	9	1.7			
Renal Tubule, Regeneration	1																									1	1	1	1	1	1	1	1	1	1	9	1.0

* ..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: 99920-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/23/2014

Test Type: SPECIAL STUDY

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

Time Report Requested: 09:39:36

Route: DOSED FEED

CAS Number: 57-63-6

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

DAY ON TEST
CD Rat Male
F1 2.0 PPB

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

*TOTALS

Alimentary System

Liver + 1
Hepatodiaphragmatic Nodule X 1

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	24			
Developmental Malformation				X						X												X		3		
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Atrophy					3			3														3		3	3.0	
Hypospermia				4			4															4		3	4.0	
Infiltration Cellular, Lymphocyte											1					1								2	1.0	
Preputial Gland																						+		2		
Atrophy																							3		1	3.0
Infiltration Cellular, Lymphocyte																							2		1	2.0
Inflammation, Suppurative																							4		1	4.0

* ..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: 99920-98

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: 09:39:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 2.0 PPB

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		
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	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	2	2	2	2	3	3	3	3	3	3	1	3	3	3	3	3	2	2	2	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4		
	7	7	7	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	0	1	2	3	4	0	1	2	3	4	2	3	4	5	5	5	5	5	5	5	4	5	6	7	7		
																									*TOTALS		
Prostate, Dorsal/Lateral Lobe	+																								25		
Infiltration Cellular, Lymphocyte	1																									1	1.0
Inflammation, Suppurative																										2	2.0
Prostate, Ventral Lobe	+																								25		
Infiltration Cellular, Lymphocyte	2 1 1 1 1 1 1 1 2 3 1 1 1 1 1 1 1 1 1 2																								16	1.3	
Inflammation, Suppurative																									1	2.0	
Rete Testes	+																								23		
Dilatation																										4	2.5
Seminal Vesicle	+																								25		
Testes	+																								25		
Seminif Tub, Degeneration																										5	3.8

Hematopoietic System

NONE

Integumentary System

Mammary Gland

 Alveolus, Hyperplasia

 Duct, Hyperplasia

Musculoskeletal System

NONE

Nervous System

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

2) Mild 4) Marked

Experiment Number: 99920-98
 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: 09:39:37
 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	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
CD Rat Male		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	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
F1 2.0 PPB		1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	1	3	3	3	3	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	2	
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		7	7	7	7	7	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	1	2	3	4	0	1	2	3	4	2	3	4	5	6	7	4	5	6	7	8	9	9	5	6	7	8	9	9	5	6	7	8	9	9	5	6	7	8	9	9	5	6	7	8	9	9
																													*TOTALS																			

NONE
Respiratory System
 NONE
Special Senses System
 NONE
Urinary System
 Kidney
 Congestion
 Cortex, Cyst
 Developmental Malformation
 Infiltration Cellular, Lymphocyte

+	+	2
	2	1 2.0
	X	1
X		1
	1	1 1.0

* ..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: 99920-98
 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: 09:39:37
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10 PPB

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

Atrophy																								2	1	2.0
Bilateral, Atrophy																								2	1	2.0
Prostate, Dorsal/Lateral Lobe	+	+		+	+	+				+		+	+	+	+		+	+		+	+				25	
Infiltration Cellular, Lymphocyte			1				1						1								1	1			5	1.0
Inflammation, Suppurative								2		2						1		3			2			5	2.0	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Infiltration Cellular, Lymphocyte	1		2		1	1	1	2		1	2	1	2	1		2	1	1	2		2	1	1	2	19	1.4
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Dilatation												3											2		2	2.5
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Depletion Secretory																4									1	4.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminif Tub, Degeneration											4							2				4			3	3.3
Hematopoietic System																										
NONE																										
Integumentary System																										
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia			1	3	1	1					2	4	1			1				3	2			1	11	1.8
Duct, Hyperplasia										2					2			2			1			1	5	1.6
Musculoskeletal System																										
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
 2) Mild 4) Marked

Experiment Number: 99920-98

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: 09:39:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10 PPB

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

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cortex, Cyst	X										X					X																								3	
Hyaline Droplet																			1																				1	1.0	
Infiltration Cellular, Lymphocyte			1		1	1				1	1	1				1	1			1	1						1	1											12	1.0	
Inflammation, Chronic													1																											1	1.0
Renal Tubule, Dilatation									1			2								2		2	1				1												6	1.5	
Renal Tubule, Hyperplasia														2																										1	2.0
Renal Tubule, Regeneration										1	1											1					1													4	1.0

* ..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: 99920-98
 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: 09:39:37
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
 F1 50 PPB

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

***TOTALS**

Alimentary System

Esophagus	+																								1	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Hepatodiaphragmatic Nodule															X				X				X		3	
Inflammation, Chronic Active										1	1	1	1					1		2		1	1		10	1.1
Vacuolization Cytoplasmic																						1			1	1.0
Oral Mucosa																									1	
Abscess																									4	
Pancreas	+																								1	4.0

Cardiovascular System

Blood Vessel	+																								1	
Heart	+																								1	
Cardiomyopathy	1																								1	1.0

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Vacuolization Cytoplasmic											1														1	1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Pars Distalis, Cyst												X													1	
Pars Distalis, Cyst, Multiple								X							X										2	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	

* ..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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50 PPB

	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	0			
	0	0	0	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		
	9	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0			
	8	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	0			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0			
	3	8	8	8	8	8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0			
	1	0	1	2	3	4	1	2	3	4	5	6	4	5	6	7	8	5	6	7	8	9	0	1	0			
Hyperplasia, Lymphoid											1															1	1.0	
Pigmentation													1						1			1				4	1.0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26			
Integumentary System																												
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26			
Alveolus, Hyperplasia			4	2				2		4	2		2		3				1	3		3				10	2.6	
Duct, Hyperplasia	2				2		2		2				2		2	1	3	3						1		10	2.0	
Skin	+																									1		
Musculoskeletal System																												
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26		
Nervous System																												
Brain	+																									1		
Spinal Cord	+																									1		
Respiratory System																												
Lung	+																									1		
Trachea	+																									1		
Special Senses System																												
NONE																												
Urinary System																												

* ..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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50 PPB

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	
	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	9	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	8	1	1	1	1	1	1	1	1	1	1	0	2	2	2	2	2	3	3	2	2	2	2	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	
	3	8	8	8	8	8	2	2	2	2	2	2	6	6	6	6	6	0	0	0	0	1	4	4	
	1	0	1	2	3	4	2	2	3	4	5	6	4	5	6	7	8	5	6	7	8	9	0	1	26
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26	
Congestion										2	2													2 2.0	
Cortex, Cyst																						X		1	
Cortex, Cyst, Multiple						X																		1	
Hyaline Droplet										1			1					1	2			1		5 1.2	
Infiltration Cellular, Lymphocyte					1		1	1	1	1		2	1	1	1		1	1	1	1	1		1	17 1.1	
Inflammation, Chronic															1									1 1.0	
Interstitial, Fibrosis											2													1 2.0	
Renal Tubule, Degeneration							1																	1 1.0	
Renal Tubule, Dilatation					1		2		1			2	1			1	3	2		1		1	3	11 1.6	
Renal Tubule, Hyperplasia												1												1 1.0	
Renal Tubule, Mineralization	1					2	1			1		1	2						2	1	1			9 1.3	
Renal Tubule, Regeneration	1				1			1			2	1			1	1	1	1		1	1	1	1	13 1.1	
Urinary Bladder	+																							1	

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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1 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
	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	5	6	6	6	6	6	6	6	6	6	6
		1	1	1	1	0	1	1	1	1	0	1	1	1	2	9	2	2	2	2	2	2	2	2	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
		4	4	4	4	4	8	8	8	8	8	8	8	2	2	2	3	6	7	7	7	7	1	1	1
		4	5	6	7	8	5	6	7	8	9	7	8	9	0	1	2	3	1	2	3	4	5	6	
		*TOTALS																							

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Developmental Malformation											X														1
Inflammation, Chronic Active			1										1				1		1	1					5 1.0

Cardiovascular System

NONE																									
Endocrine System																									
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Ultimobranchial Cyst															X					X					2

General Body System

NONE																									
Genital System																									
Clitoral Gland																							+		1
Distended																							X		1
Inflammation, Chronic Active																							2		1 2.0
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Corpus Luteum, Cyst																							X		1

* ..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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1 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	
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	
	1	1	1	1	0	1	1	1	1	0	1	1	1	1	2	9	2	2	2	2	2	2	2	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
	4	4	4	4	4	8	8	8	8	8	2	2	2	3	6	7	7	7	7	1	1	1	1	1	
	4	5	6	7	8	5	6	7	8	9	7	8	9	0	9	0	2	3	1	2	3	4	5	6	
Diestrus		X				X	X	X		X							X	X		X			X	9	
Estrus			X	X									X	X										4	
Follicle, Cyst																			X					1	
Metestrus									X		X	X						X				X		5	
Proestrus	X				X							X			X				X	X		X		7	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus		X				X	X	X		X							X	X		X			X	9	
Estrus			X	X									X	X										4	
Metestrus								X		X	X							X				X		5	
Proestrus	X				X							X			X				X	X		X		7	
Vagina	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	24	
Diestrus		X				X	X	X		X							X	X		X			X	X	10
Estrus				X								X	X	X										4	
Metestrus			X					X		X								X						4	
Proestrus	X				X									X					X	X		X		6	
Hematopoietic System																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pigmentation													1					1						2 1.0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Integumentary System																									

* ..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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 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	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	5	6	6	6	6	6	6	6	6	6	6						
	1	1	1	1	0	1	1	1	1	0	1	1	1	1	2	9	2	2	2	2	2	2	2	2	2						
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							
	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4							
	4	4	4	4	4	8	8	8	8	8	2	2	2	3	6	7	7	7	7	1	1	1	1	1							
	4	5	6	7	8	5	6	7	8	9	7	8	9	0	0	1	2	3	1	2	3	4	5	6							
																										*TOTALS					
Mammary Gland	+																									25					
Alveolus, Hyperplasia																										1	1	2	1	5	1.2
Musculoskeletal System																															
Bone	+																									25					
Nervous System																															
NONE																															
Respiratory System																															
NONE																															
Special Senses System																															
NONE																															
Urinary System																															
Kidney	+																									25					
Pelvis, Dilatation																										3		1	3.0		
Renal Tubule, Mineralization	2	2	2	3		1	1	2	3	1		2	1	1	3	2	3	3	1		3	1	1	1	21	1.9					

* ..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: 99920-98
 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: 09:39:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2.0 PPB

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

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

Thyroid Gland

+ 1

Ectopic Thymus

X 1

General Body System

NONE

Genital System

Clitoral Gland

+ + 2

Distended

X X 2

Inflammation, Chronic Active

3 3 2 3.0

Ovary

+ 25

Diestrus

X 6

Estrus

X 2

Metestrus

X 7

Proestrus

X 10

Oviduct

+ 25

Uterus

+ 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: 99920-98
 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: 09:39:39
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2.0 PPB

| | 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 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | |
| 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 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 9 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 7 | 8 | 8 | *TOTALS |
| Diestrus | | | X | | | | X | | | | X | X | | | | X | | | | | X | | | | 6 |
| Estrus | | | | | | | | | | | | | | | X | | | | | X | | | X | | 3 |
| Metestrus | X | | | | X | X | | | | | | | | | | | | X | X | X | | | | | 6 |
| Proestrus | | X | | X | | | | X | X | X | X | | | X | X | | | | | | X | | X | | 10 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | | X | | | | X | | | | | X | X | | | | X | | | | | X | | 6 |
| Estrus | | | | | | | | X | | | | | | | X | | | | | | X | | | X | 4 |
| Metestrus | X | | | | X | X | | | | | | | | | | X | | X | X | X | | | | | 7 |
| Proestrus | | X | | X | | | | | X | X | X | | | X | | | | | | | X | | X | | 8 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Alveolus, Hyperplasia | 1 | | | | | 1 | 1 | | | | | | 2 | 1 | | | 1 | | | | | | | | 6 1.2 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
 2) Mild 4) Marked

Experiment Number: 99920-98
 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: 09:39:39
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 2.0 PPB**

| 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 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| 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 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 1 | 2 |
| | 9 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cortex, Cyst | | | | | | | | | | X | | | | | | | | X | | | | X | | | 3 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Pelvis, Dilatation | | | | | | | | | | | 4 | | | | | | | | | | | | | | 1 4.0 |
| Renal Tubule, Mineralization | | 2 | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | | | | 4 | 4 | 1 | 4 | 2 | 2 | | | 3 | 2 | 18 2.0 |

* ..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: 99920-98
 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: 09:39:39
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F1 10 PPB

| 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 | 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 | 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 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 4 | 4 | 7 | 8 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 9 | 0 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 5 | 5 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Asynchrony | | | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Cyst | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Diestrus | X | | X | X | | | | | | | | | | | | | | X | X | X | | | | | | | | 6 |
| Estrus | | | | | X | X | X | | X | | | X | | | | X | | | | | | | | | | | | 6 |
| Metestrus | | | | | | | | X | | | | | | X | X | | | | | | X | | X | | X | | | 6 |
| Proestrus | | X | | | X | | | | | | X | | X | | | | | | | | X | | X | | | | | 6 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cyst | | | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Diestrus | X | | X | X | | | | | X | | | | | | | | | X | X | X | | | | | | | | 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: 99920-98
 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: 09:39:39
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

| 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 | 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 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 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 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | |
| | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 4 | 4 | 7 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 3 | 8 | 9 | 9 | 0 | 1 | 9 | 0 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Estrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Metestrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Proestrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Vagina | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Diestrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Estrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Metestrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Proestrus | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Hematopoietic System | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | NONE | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Integumentary System | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Mammary Gland | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Alveolus, Hyperplasia | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Musculoskeletal System | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | NONE | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Nervous System | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | NONE | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Respiratory System | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 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
 2) Mild 4) Marked

