

Experiment Number: 99920-93
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: 11:57:37
First Dose M/F: NA / NA
Lab: NCTR

C Number:	MG96006
Lock Date:	12/02/2008
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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CD Rat Male F3 OPPB	DAY ON TEST	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		
		1	4	4	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	4	5	5	5	4	4	4		
		4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	1	1	2	2	3	3	3	4	4	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9		
		2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	2	4	4	5	5	5	5	
		1	4	9	6	8	5	5	5	3	2	4	0	0	2	5	6	7	0	9	0	1	2	9	0	4	9	0	2	3	4	5

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Hyperkeratosis				2					3						2																						
Intestine Large, Cecum	A	+	+	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Intestine Large, Colon	A	+	+	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Large, Rectum	A	+	+	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Duodenum	A	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Ileum	A	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Jejunum	A	+	+	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+			
Liver	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Angiectasis																																					
Basophilic Focus								X		X										X															X		
Bile Duct, Hyperplasia														1	2																						
Biliar Tract, Cyst																																					
Biliar Tract, Fibrosis																																					
Cyst																																					
Cyst Multilocular																																					
Degeneration, Cystic																																					
Eosinophilic Focus																																					
Hematopoietic Cell Proliferation																																					
Hepatodiaphragmatic Nodule																																					
Hyperplasia, Regenerative																																					

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

Infiltration Cellular, Lymphocyte																																
Inflammation, Chronic Active									1						1			1													2	
Left Lat Lobe, Developmental Malformation																																
Mixed Cell Focus																																
Necrosis														2																2		
Pigmentation																									2							
Tension Lipidosis						2																									2	
Vacuolization Cytoplasmic									3	1				2																		
Mesentery								+	+		+																					
Fat, Necrosis								3	4		4																					
Oral Mucosa																		+	+	+												
Inflammation, Suppurative																				2												
Pancreas	A	+	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration				1	2	1	2	2	1	2	3		1	2	2		3	1	1	3	3	2	3	3	1	2	2	1	1	1	2	
Polyarteritis																																
Salivary Glands	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach	A	+	A	+	+	+	+	+	+	I	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Epithelium, Hyperplasia										1																						
Hyperkeratosis				2						2																						
Stomach, Glandular	A	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

Cardiovascular System

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
--------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	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	4	4	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	4	5	5	5	4	4	4	
		4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	9	9	0	0	0	0	0	0	
Heart		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Atrium, Dilatation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cardiomyopathy		0	1	1	2	2	3	3	3	4	4	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	
Ventricle, Dilatation		2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	2	4	4	5	5	5	
		1	4	9	6	8	5	5	5	3	2	4	0	0	2	5	6	7	0	9	0	1	2	9	0	4	9	0	2	3	
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Endocrine System																															
Adrenal Cortex		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Accessory Adrenal Cortical Nodule																															
Angiectasis																															
Bilateral, Hyperplasia																															
Degeneration, Cystic																															
Hyperplasia																															
Hypertrophy																															
Vacuolization Cytoplasmic																															
Adrenal Medulla		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																															
Islets, Pancreatic		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																															
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																															
Pituitary Gland		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Cyst																															
Pars Distalis, Hyperplasia																															

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	ANIMAL ID	1	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	4	4	4	4	4	5	5	5	4	4	4	4
		4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	9	0	0	0	0	0	0	0
Thyroid Gland	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C Cell, Hyperplasia																														
Cyst, Squamous							X			X	X					X					X						X	X		
General Body System																														
NONE																														
Genital System																														
Coagulating Gland	A	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Atrophy																														
Developmental Malformation					X											X						X				X	X			
Inflammation, Chronic Active																														
Epididymis	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																														
Hypospermia																														
Preputial Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																														
Duct, Dilatation			4				2									2	3			1						2				1
Infiltration Cellular, Lymphocyte																														
Inflammation, Chronic Active																														
Inflammation, Suppurative							4	3		4					1	2	2	4	2		1	1		1	3					
Prostate, Dorsal/Lateral Lobe		+	+	+	+	+						+																		
Cyst																														
Inflammation, Chronic Active																														

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	0	0	0	0	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	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7										
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	1	1	2	2	3	3	3	4	4	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9										
	2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	2	4	4	5	5										
	1	4	9	6	8	5	5	5	3	2	4	0	2	5	6	6	7	0	0	1	1	2	4	4	5	5	5	5										
Inflammation, Suppurative	2	2	2	1		2	2	1	2	2					1	4	3						2	1	2		2	1		1	2		2	2				
Prostate, Ventral Lobe	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Hyperplasia				2		2																	1															
Infiltration Cellular, Lymphocyte																																				1		
Inflammation, Chronic Active										1																												
Inflammation, Suppurative							1									1																						
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	M	+	+	+	+	+				
Dilatation	3						1																															
Fibrosis																																					2	
Seminal Vesicle	A	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy										3						4		3																			3	
Inflammation, Chronic Active																																						
Lumen, Dilatation																4																						
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminif Tub, Degeneration	4																																					1
Hematopoietic System																																						
Bone Marrow	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Myeloid Cell, Hyperplasia																																						4
Lymph Node		+																																				+
Lumbar, Degeneration, Cystic																																						4
Lumbar, Hyperplasia, Lymphoid																																						3
Lumbar, Infiltration Cellular, Plasma Cell																																						2

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	0	0	0	0	0	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	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	4	5	5	5	4	4	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	0	0	0	0	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	2	2	3	3	3	4	4	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	
	2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	2	4	4	5	5	
	1	4	9	6	8	5	5	5	3	2	4	0	0	2	5	6	7	0	0	1	2	9	0	4	9	0	2	3	
Renal, Degeneration, Cystic	3																												
Renal, Infiltration Cellular, Plasma Cell																													
Lymph Node, Mandibular	A	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic	2 2 3																												
Hyperplasia, Lymphoid	2 2 3 2 1 2 3 2																												
Infiltration Cellular, Plasma Cell	2 2 2 4 1 4 3 3 2																												
Lymph Node, Mesenteric	A	+	+	A	+	+	+	+	+	+	+	+	A	A	+	M	+	+	+	A	+	+	+	+	+	+	+	+	
Hyperplasia, Lymphoid	2 2																												
Infiltration Cellular, Mast Cell	2																												
Inflammation, Granulomatous	1 2 1 2 1 2																												
Spleen	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Depletion Lymphoid	4																												
Hematopoietic Cell Proliferation	2 3 3 1 1 2 3 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																												
Hyperplasia, Lymphoid	2																												
Pigmentation	3 2 3 1 1 2 3 2 1 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																												
Polyarteritis																													
Thymus	A	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy	3 4 3 3 4																												
Epithel Cell, Hyperplasia	2																												
Integumentary System																													
Mammary Gland	A	M	A	+	+	M	+	M	+	+	+	A	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration	2 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: 99920-93

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: 11:57:39

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F3 OPPB	DAY ON TEST	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
		1	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	5	5	5	4	4	4
		4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	9	0	0	0	9	9	9

Alveolus, Hyperplasia																																					2	2				
Ectasia																																							1			
Lactation																																							2			
Skin																																								1		
Abscess																																								2		
Cyst Epithelial Inclusion																																									1	
Fibrosis																																									4	
Hyperkeratosis																																									2	
Inflammation, Chronic																																									4	
Inflammation, Chronic Active																																									4	
Musculoskeletal System																																										
Bone, Femur																																										
Skeletal Muscle																																										
Degeneration																																										
Nervous System																																										
Brain, Brain Stem																																										
Compression																																										
Hemorrhage																																										
Brain, Cerebellum																																										
Brain, Cerebrum																																										
Hydrocephalus																																										
Peripheral Nerve																																										

* ..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: 99920-93
 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: 11:57:40
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3 OPPB**

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

Spinal Cord											A	A																					
Respiratory System																																	
Lung	A	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolar Epith, Hyperplasia																																	
Infiltration Cellular, Histiocyte					1						1	1				1				1			1	1	1								
Metaplasia, Osseous					1																												
Nose	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active																	2																
Inflammation, Suppurative											1																						
Mucosa, Keratin Cyst																					X												
Trachea	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Special Senses System																																	
Eye	A	+	+	A	+	+	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic Active																																	
Inflammation, Suppurative																	3																
Harderian Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration																					2												
Infiltration Cellular, Lymphocyte											1																						
Inflammation, Suppurative																	1																
Lacrimal Gland																																	
Ectopic Harderian																																	
Zymbal's Gland																	+																

* ..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: 99920-93

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: 11:57:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3 OPPB

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

Urinary System

Kidney	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst		X		X					X				X			X	X		X			X	X			X	X			X			X			X			X	
Hydronephrosis					2																																			
Nephropathy				2		1	2	2	2	2	1	1	1	3	1	1	1	2	4	1	2	1	1	1	2	4	1	2	2	2	2	2	2	2	2	2	2	2	2	
Polyarteritis																																								
Urethra																								+	+															
Urinary Bladder	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active														1																										

* ..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: 99920-93
 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: 11:57:40
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperkeratosis																				3	2.3
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Angiectasis				1									2							3	1.7
Basophilic Focus		X		X					X				X	X						9	
Bile Duct, Hyperplasia							1							2						8	1.9
Biliar Tract, Cyst																				1	
Biliar Tract, Fibrosis				1												1				7	1.1
Cyst																				1	
Cyst Multilocular															X					2	
Degeneration, Cystic		1				1			1		1	1						2		10	1.3
Eosinophilic Focus			X			X					X			X			X			8	
Hematopoietic Cell Proliferation										1										1	1.0
Hepatodiaphragmatic Nodule				X									X		X					8	
Hyperplasia, Regenerative																				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

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Experiment Number: 99920-93
 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: 11:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

DAY ON TEST	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	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4	
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5	
	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	
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2	2	
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	9	1	
	*TOTALS																			
Infiltration Cellular, Lymphocyte																			2	1.0
Inflammation, Chronic Active																			6	1.2
Left Lat Lobe, Developmental Malformation																			1	
Mixed Cell Focus																			1	
Necrosis																			2	2.0
Pigmentation																			1	2.0
Tension Lipidosis																			3	2.7
Vacuolization Cytoplasmic																			6	1.7
Mesentery																			4	
Fat, Necrosis																			4	3.8
Oral Mucosa																			3	
Inflammation, Suppurative																			1	2.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration	1	2	1		3	3	3	2	2	1	3	2		2	2	2	2		4	
Polyarteritis																			2	2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Epithelium, Hyperplasia																			1	1.0
Hyperkeratosis																			2	2.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
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 1) Minimal 3) Moderate
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Experiment Number: 99920-93
 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: 11:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

	DAY ON TEST																				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	4	3			
	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	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1			
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2			
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0			
																			*TOTALS		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrium, Dilatation																			2	3.0	
Cardiomyopathy	2	1		3	1	1	1	1		2	1	1	2	2	1	1	2	3	2	40	1.7
Ventricle, Dilatation																				1	3.0
Endocrine System																					
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Accessory Adrenal Cortical Nodule																				1	
Angiectasis		2		2																3	2.0
Bilateral, Hyperplasia																				1	2.0
Degeneration, Cystic											1									2	1.0
Hyperplasia	1						1								1	1			2	7	1.1
Hypertrophy		2	2																	3	2.0
Vacuolization Cytoplasmic							1		2											7	1.6
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia	2		1	2						3	3			2		2		2		15	1.9
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Hyperplasia						1		1				1							1	7	1.0
Parathyroid Gland	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Hyperplasia																				4	1.8
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Pars Distalis, Cyst																				3	
Pars Distalis, Hyperplasia							1	2								1				8	1.5

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

+ ..Tissue examined microscopically

X ..Lesion present

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Experiment Number: 99920-93
 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: 11:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4		
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	4	3	2	5	5		
	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		
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1		
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2	2		
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	9	1		
	*TOTALS																				
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
C Cell, Hyperplasia			1				1		2											4	1.3
Cyst, Squamous				X			X			X				X				X		12	
General Body System																					
NONE																					
Genital System																					
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Atrophy																				1	3.0
Developmental Malformation				X																6	
Inflammation, Chronic Active									2											1	2.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy								2												4	2.3
Hypospermia								4												4	4.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy																				1	3.0
Duct, Dilatation	1		4											1			2	1		12	2.0
Infiltration Cellular, Lymphocyte						2				1		2			2	2		2		10	1.6
Inflammation, Chronic Active																				1	1.0
Inflammation, Suppurative	4		4	1	2		3			2	1			2			2			21	2.3
Prostate, Dorsal/Lateral Lobe			+	+										+						50	
Cyst																				1	
Inflammation, Chronic Active								4	1	2				2	1		1			11	1.5

* ..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: 99920-93
 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: 11:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

	DAY ON TEST																		*TOTALS	
	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		
Inflammation, Suppurative	1	2			2	2	1	1				2	1				1	2	32	1.7
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia				3															4	2.0
Infiltration Cellular, Lymphocyte																			1	1.0
Inflammation, Chronic Active									4		2	1							5	1.8
Inflammation, Suppurative													1						3	1.0
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Dilatation								3								2			4	2.3
Fibrosis																			1	2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Atrophy																2	1		7	2.4
Inflammation, Chronic Active									4										1	4.0
Lumen, Dilatation								3											2	3.5
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Seminif Tub, Degeneration				4	1	1	1	4	3		1					1		1	19	2.3
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Myeloid Cell, Hyperplasia															3				3	2.7
Lymph Node	+				+				+		+		M		+	+		+	14	
Lumbar, Degeneration, Cystic	2				3				3						2			4	10	2.8
Lumbar, Hyperplasia, Lymphoid									3							2			4	2.5
Lumbar, Infiltration Cellular, Plasma Cell	4														3	2			4	2.8

* ..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: 99920-93
 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: 11:57:42
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

DAY ON TEST	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
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	4	3	2	5
ANIMAL ID	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	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	1

***TOTALS**

Renal, Degeneration, Cystic																			2	2.5			
Renal, Infiltration Cellular, Plasma Cell																			3	3.0			
Lymph Node, Mandibular	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	46				
Degeneration, Cystic	2																		2	2	4	10	2.5
Hyperplasia, Lymphoid	3		2	2			2	2	2	2	2	2	2	2	2				24	2.2			
Infiltration Cellular, Plasma Cell	2		3	1			3	2	4			2			3	2	3	28	2.4				
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44				
Hyperplasia, Lymphoid																			2	2.0			
Infiltration Cellular, Mast Cell																			1	2.0			
Inflammation, Granulomatous	2	2					1										2	11	1.6				
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49				
Depletion Lymphoid																			1	4.0			
Hematopoietic Cell Proliferation	2	2											2	2	2	1	13	1.9					
Hyperplasia, Lymphoid																			2	1.5			
Pigmentation	1	2	1	3	2	2	1	1	2	2	1	1	2	2				2	30	1.7			
Polyarteritis																			2	2.0			
Thymus	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	47				
Atrophy	4	4	4	4	4	4	4	4	4			4	4	4	4	4	4	3	45	3.9			
Epithel Cell, Hyperplasia	2		1			2										2	1	2	8	1.6			
Integumentary System																							
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42				
Acinus, Degeneration	4	3	3	3	2	1		2	3	1	3	3	3	2	4			2	25	2.6			

* ..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: 99920-93
 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: 11:57:42
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

DAY ON TEST	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
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	4	3	2	5
ANIMAL ID	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	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	1

***TOTALS**

Alveolus, Hyperplasia																			2	2.0
Ectasia																			3	1.3
Lactation														1					7	1.4
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Abscess																			1	4.0
Cyst Epithelial Inclusion				X	X														4	
Fibrosis																			1	4.0
Hyperkeratosis																			1	2.0
Inflammation, Chronic																			1	4.0
Inflammation, Chronic Active	4			4	4	4		4	4		4				4	4		4	20	4.0
Musculoskeletal System																				
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Skeletal Muscle																			3	
Degeneration																			1	1.0
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Compression			2												1				7	1.9
Hemorrhage																			1	2.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hydrocephalus																			1	2.0
Peripheral Nerve																			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

Experiment Number: 99920-93
 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: 11:57:42
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

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

Spinal Cord																			0	
Respiratory System																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Alveolar Epith, Hyperplasia			2			1					2								3	1.7
Infiltration Cellular, Histiocyte			2			1		1	1	1	2			1			2	1	19	1.2
Metaplasia, Osseous																			1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Inflammation, Chronic Active											2								2	2.0
Inflammation, Suppurative																			2	1.0
Mucosa, Keratin Cyst																			1	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Special Senses System																				
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Inflammation, Chronic Active											2								1	2.0
Inflammation, Suppurative																			1	3.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Acinus, Degeneration											1	1							3	1.3
Infiltration Cellular, Lymphocyte																			2	1.5
Inflammation, Suppurative																			1	1.0
Lacrimal Gland																			1	
Ectopic Harderian																			1	
Zymbal's Gland																			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: 99920-93
 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: 11:57:43
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 OPPB

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

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst		X		X		X			X					X			X	X		18
Hydronephrosis													1							2 1.5
Nephropathy	2	3	2	2	1	2	2	1	2	3	2	1	1	2	2	1	1	1	4	46 1.8
Polyarteritis																		1		1 1.0
Urethra	+																			3
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Chronic Active																		1		1 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: 99920-93
 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: 11:57:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/2PPB TO CTL	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	
		3	3	4	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	
	ANIMAL ID	1	7	4	7	6	6	8	8	0	8	6	3	0	6	6	3	4	0	0	4	0	4	9	9	9	0	0	9	0	
Necrosis				4																											
Pars Distalis, Cyst				X																	X							X	X	X	
Pars Distalis, Hyperplasia					2	1				1	2		1			3					2	1							4	3	
Pars Intermed, Cyst																						X						X			
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C Cell, Hyperplasia																													3		2
Cyst, Squamous	X										X									X			X				X			X	
Inflammation, Chronic Active																															
General Body System																															
NONE																															
Genital System																															
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																	2														
Developmental Malformation			X											X									X								
Lumen, Dilatation					3					3																					
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																2	2						2				3	1			
Hypospermia						4					4	4									3				4	4					
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Abscess																															
Atrophy																															
Duct, Dilatation																															

* ..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: 99920-93

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: 11:57:46

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

Table with columns for DAY ON TEST (0-3) and ANIMAL ID (0-6), and 28 columns of numerical data representing counts for each animal across different days.

Table listing various lesions and their severity grades across 28 animals. Lesions include Inflammation, Granulomatous; Spleen; Hematopoietic Cell Proliferation; Hyperplasia, Lymphoid; Infiltration Cellular, Polymorphnuclr; Inflammation, Suppurative; Necrosis; Pigmentation; Polyarteritis; Thymus; Atrophy; Cyst; Epithel Cell, Hyperplasia; Polyarteritis.

Integumentary System

Table listing integumentary lesions and their severity grades across 28 animals. Lesions include Mammary Gland; Acinus, Degeneration; Alveolus, Hyperplasia; Atypical Focus; Cyst; Ectasia; Galactocele.

* ..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: 99920-93

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: 11:57:46

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

Table with columns for DAY ON TEST and ANIMAL ID, and 28 columns of numerical data representing counts for each animal.

Table listing various anatomical systems and lesions such as Lactation, Polyarteritis, Skin, Abscess, Cyst Epithelial Inclusion, Fibrosis, Inflammation, Chronic Active, Musculoskeletal System (Bone, Bone, Femur, Skeletal Muscle, Degeneration), and Nervous System (Brain, Brain Stem, Compression, Meninges, Inflammation, Suppurative, Brain, Cerebellum, Brain, Cerebrum, Hydrocephalus, Peripheral Nerve, Spinal Cord).

* ..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: 99920-93
 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: 11:57:47
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/2PPB TO CTL	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			
	ANIMAL ID	3	3	4	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7			
		1	4	3	2	8	9	1	2	3	3	4	5	6	6	6	6	7	7	8	2	2	3	3	4	4	4	5	5	4	5	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	
	0	0	0	0	0	0	0	0	0	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	2	3	4	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9		
	5	6	2	5	7	0	0	1	1	1	2	2	3	3	3	4	4	4	8	9	0	0	1	1	2	4	4	5	8	9	9	
	6	3	8	7	4	1	6	2	3	6	1	6	3	4	5	1	3	9	6	3	2	4	7	8	1	6	7	6	8	6	7	

Respiratory System

Lung	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolar Epith, Hyperplasia							2				1									1			1					2		1
Infiltration Cellular, Histiocyte	1						2			1	2			1	1				1	1	1					1			1	2
Inflammation, Chronic Active				2											3															
Metaplasia, Osseous																														1
Nose	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active				2																			2							
Inflammation, Suppurative									2		2										1								1	
Mucosa, Keratin Cyst								X																						
Vomeronas Org, Dilatation																											2			4
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Special Senses System

Eye	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cataract												X																		
Cornea, Hemorrhage												2																		
Inflammation, Chronic Active												4			4															
Inflammation, Suppurative																						4								
Harderian Gland	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration																3														
Infiltration Cellular, Lymphocyte																						1								
Inflammation, Suppurative																														4

* ..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: 99920-93
 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: 11:57:47
 First Dose M/F: NA / NA
 Lab: NCTR

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

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	48
Hyperkeratosis																			4 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Edema																			1 4.0
Inflammation, Suppurative																			1 3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Infiltration Cellular, Lymphocyte																			1 2.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Small, Ileum	+	+	A	A	+	A	+	+	+	A	+	+	+	+	+	+	+	+	38
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	41
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Angiectasis																			1 2.0
Basophilic Focus	X		X					X		X				X					7
Bile Duct, Hyperplasia	1						1			1	1		1		1				9 1.0
Biliar Tract, Fibrosis			1								1								4 1.0
Capsule, Inflammation, Chronic Active																			1 2.0
Cyst									X										1
Degeneration, Cystic							1								2				7 1.4
Eosinophilic Focus														X		X			5
Hematopoietic Cell Proliferation																			1 1.0

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Experiment Number: 99920-93
 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: 11:57:48
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	ANIMAL ID																	*TOTALS
	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
4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
9	9	3	2	2	2	4	4	4	4	5	5	5	5	5	5	9	7	
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
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1	1
7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	1	6
Hepatodiaphragmatic Nodule																		2
Hyperplasia, Regenerative													4					1 4.0
Infiltration Cellular, Lymphocyte										1								2 1.5
Inflammation, Chronic Active						1				1			1					7 1.3
Necrosis						1												4 2.0
Tension Lipidosis								2										1 2.0
Vacuolization Cytoplasmic											1				4			7 2.1
Oral Mucosa																		8
Gingival, Inflammation, Chronic Active																		1 2.0
Keratin Cyst															X			3
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Acinar Cell, Degeneration				3	4	2		2	2	2	1	4	3	2	1	1	2	3
Polyarteritis																		1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Epithelium, Hyperplasia																		1 2.0
Hyperkeratosis																		1 2.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Cardiovascular System																		
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrium, Dilatation																		2 3.0

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

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Experiment Number: 99920-93
 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: 11:57:48
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

	DAY ON TEST																																	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0														
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	*TOTALS															
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4																
	9	9	3	2	2	2	4	4	4	4	4	4	4	4	4	4	5	7																
Cardiomyopathy	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	2	1	1	2	1	2	2	37	1.5
Endocardium, Hyperplasia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1													1	4.0		
Metaplasia, Osseous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1													2	1.0		
Polyarteritis	0	0	4	4	4	4	4	5	5	5	5	5	5	6	6	6	0	0	1													1	2.0	
Ventricle, Dilatation	7	8	3	4	4	7	8	4	5	5	5	5	5	6	6	7	9	3	4													1	1.0	
Endocrine System																																		
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+													49			
Angiectasis																															1	2.0		
Degeneration, Cystic																		2													4	1.5		
Hyperplasia																2															7	1.9		
Hypertrophy	2										2						2														5	1.8		
Vacuolization Cytoplasmic																1	1														8	1.4		
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+													48			
Hyperplasia	1		1		1													1													9	1.0		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+													48			
Hyperplasia							1		1		1	1																			13	1.2		
Parathyroid Gland	M	+	+	+	+	M	M	+	M	+	+	+	+	+	+	+	+	+													44			
Bilateral, Hyperplasia																															1	1.0		
Cyst																														X	1			
Hyperplasia											2																				2	2.0		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+													48			
Inflammation, Suppurative																															1	4.0		

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 Route: DOSED FEED
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Date Report Requested: 10/23/2014
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 First Dose M/F: NA / NA
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**CD Rat Male
 F3/2PPB TO CTL**

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

Necrosis																			1	4.0
Pars Distalis, Cyst																			5	
Pars Distalis, Hyperplasia	3			2				2			1	2	3				2		18	2.1
Pars Intermed, Cyst												X							3	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
C Cell, Hyperplasia							1	2							2	1			6	1.8
Cyst, Squamous			X							X	X		X			X	X		12	
Inflammation, Chronic Active													1						1	1.0

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy																			1	2.0
Developmental Malformation				X	X														5	
Lumen, Dilatation																			2	3.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy	3															3			7	2.3
Hypospermia	4							2								4			9	3.7
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Abscess						4													1	4.0
Atrophy																	2		4	2.5
Duct, Dilatation			3		1			2		2				1		2		2	8	2.1

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 + ..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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Experiment Number: 99920-93
 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: 11:57:48
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

DAY ON TEST	ANIMAL ID																	*TOTALS		
	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		
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4		
	9	9	3	2	2	2	4	4	4	4	4	4	4	4	4	5	9	7		
	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		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
	0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1		
	7	8	3	4	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6	
Infiltration Cellular, Lymphocyte	2													1		2	1	8	1.4	
Inflammation, Chronic Active				1										1				4	1.5	
Inflammation, Suppurative			3					2	1	1		2			2			19	2.4	
Prostate, Dorsal/Lateral Lobe			+	M											+			48		
Atrophy																		1	2.0	
Infiltration Cellular, Lymphocyte														1				2	1.0	
Inflammation, Chronic Active							2	2							1			5	1.6	
Inflammation, Suppurative	2	2			3	2			1	2	1	2	2				1	2	30	1.9
Prostate, Ventral Lobe	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Atrophy																		1	2.0	
Hyperplasia											1				2			3	1.3	
Infiltration Cellular, Lymphocyte	1					1					1							4	1.3	
Inflammation, Chronic Active							1	2								2		7	1.7	
Inflammation, Suppurative																		1	4.0	
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	45	
Dilatation														1				3	1.7	
Fibrosis	1																	2	1.5	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44		
Atrophy																2		5	2.2	
Lumen, Dilatation				4		2												4	2.8	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Seminif Tub, Degeneration	4	1		1	1			4								4	1	20	2.3	

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Date Report Requested: 10/23/2014
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 Lab: NCTR

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

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

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hypocellularity			2																1 2.0	
Myeloid Cell, Hyperplasia													3						6 2.0	
Lymph Node		+			+				+	+					+		+		16	
Inguinal, Degeneration, Cystic																			1 2.0	
Inguinal, Infiltration Cellular, Plasma Cell																			1 2.0	
Lumbar, Degeneration, Cystic			1			3									4				8 3.1	
Lumbar, Hyperplasia, Lymphoid													3		4		2		4 2.8	
Lumbar, Infiltration Cellular, Plasma Cell			4			4							3		4		4		8 3.4	
Popliteal, Hyperplasia, Lymphoid																	3		2 2.5	
Popliteal, Infiltration Cellular, Plasma Cell																	3		2 2.5	
Renal, Degeneration, Cystic													2			4		2	6 3.0	
Renal, Hyperplasia, Lymphoid													3						1 3.0	
Renal, Infiltration Cellular, Plasma Cell													3				3		3 3.0	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Degeneration, Cystic		2		1	1		1							2				2	11 1.7	
Hyperplasia, Lymphoid				2	1	2					2	2	2	2		1	2	1	2	27 1.9
Infiltration Cellular, Plasma Cell		2			1						4				2		2	3	26 2.2	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Hyperplasia, Lymphoid																			1 2.0	
Infiltration Cellular, Mast Cell		2																	1 2.0	

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Date Report Requested: 10/23/2014
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 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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	
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4		
	9	9	3	2	2	2	4	4	4	4	5	5	5	5	5	9	7		
ANIMAL ID	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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
	0	0	4	4	4	4	5	5	5	5	6	6	6	0	0	1	1	1	
	7	8	3	4	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6

***TOTALS**

Inflammation, Granulomatous																			1	6	1.2				
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48						
Hematopoietic Cell Proliferation				2						3				2				13	1.8						
Hyperplasia, Lymphoid																			3	1.7					
Infiltration Cellular, Polymorphnuclr																			1	4.0					
Inflammation, Suppurative																			1	4.0					
Necrosis																			1	4.0					
Pigmentation				4	2	2	3	1	2	1	1			2			1	2	3	1	28	2.0			
Polyarteritis																			1	4.0					
Thymus	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	45						
Atrophy	4	3	4	4			4	4	4	3	4	4	2	4	4	4	3	3	4	41	3.6				
Cyst																			X	X	2				
Epithel Cell, Hyperplasia				2						2				2				2	2	2	7	1.9			
Polyarteritis																			1	3.0					
Integumentary System																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42						
Acinus, Degeneration				3	1						3			3	2			1	4	3			2	21	2.6
Alveolus, Hyperplasia			1				2	3				2						4			6	2.3			
Atypical Focus																			2	1	2.0				
Cyst																				1					
Ectasia						2											4	4	2.3						
Galactocele						X											X	2							

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 + ..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: 99920-93
 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: 11:57:49
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	ANIMAL ID																		*TOTALS		
	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	6	2.0	
4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	1	2.0	
9	9	3	2	2	2	4	4	4	4	4	4	5	5	5	5	5	9	7	49		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4.0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4.0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	17	4.0	
0	0	4	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1			
7	8	3	4	4	7	8	4	5	5	6	7	8	6	7	9	3	4	5	6		
Lactation					3		2												6	2.0	
Polyarteritis																			1	2.0	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Abscess																			1	4.0	
Cyst Epithelial Inclusion												X							4		
Fibrosis				4															1	4.0	
Inflammation, Chronic Active	4	4		4	4			4	4						4		4		17	4.0	
Musculoskeletal System																					
Bone																			1		
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Skeletal Muscle																			4		
Degeneration																			2	1.5	
Nervous System																					
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Compression				2	3				2						3				9	2.8	
Meninges, Inflammation, Suppurative																			1	3.0	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Hydrocephalus																2			2	2.0	
Peripheral Nerve																			4		
Spinal Cord																			0		

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M ..Missing tissue

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BLANK ..Not examined microscopically

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2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:57:50
 First Dose M/F: NA / NA
 Lab: NCTR

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

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

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Alveolar Epith, Hyperplasia								2										4	8 1.8
Infiltration Cellular, Histiocyte								2	1	1	2			1		2		4	19 1.5
Inflammation, Chronic Active																			2 2.5
Metaplasia, Osseous																			1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Inflammation, Chronic Active																			2 2.0
Inflammation, Suppurative							2								1				6 1.5
Mucosa, Keratin Cyst																			1
Vomeronas Org, Dilatation																			2 3.0
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Cataract																			1
Cornea, Hemorrhage																			1 2.0
Inflammation, Chronic Active																			2 4.0
Inflammation, Suppurative																			1 4.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Acinus, Degeneration							1								2				3 2.0
Infiltration Cellular, Lymphocyte																			1 1.0
Inflammation, Suppurative																			1 4.0

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Experiment Number: 99920-93
 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: 11:57:50
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	9	3	2	2	2	4	4	4	4	5	5	5	5	5	9	7	
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	0	4	4	4	4	5	5	5	5	6	6	6	0	0	1	1	
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6
	*TOTALS																	
Lacrimal Gland																		1
Ectopic Harderian																		1
Urinary System																		
Kidney																		48
Cyst																		19
Hydronephrosis																		3 2.0
Nephropathy																		44 1.5
Polyarteritis																		1 2.0
Transit Epithe, Hyperplasia																		1 2.0
Urethra																		1
Urinary Bladder																		48

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Experiment Number: 99920-93
 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: 11:57:52
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/10PPBTO CTL	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
	ANIMAL ID	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	9	0	8	2	3	6	6	8	5	7	7	8	0	9	2	2	2	2	3	4	4	4	5	4	4	4	4	4
	8	2	9	4	9	5	8	2	6	4	4	4	6	9	9	1	0	4	3	7	9	9	9	0	9	8	8	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	2	3	3	3	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9
	2	4	8	1	8	3	3	6	3	4	4	6	7	7	8	8	9	9	0	1	1	1	4	4	5	5	8	8	9
	4	7	5	6	1	1	4	8	1	2	6	0	7	9	7	8	6	7	3	4	5	5	8	7	8	5	6	7	0

Cardiovascular System

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrium, Dilatation																															
Cardiomyopathy				2	1	2	2	1	3		1	1	2		2	2	3	3		1	2	1	1	2		1		3		2	1
Endocardium, Hyperplasia																															
Ventricle, Dilatation																															

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Accessory Adrenal Cortical Nodule																				X	X									
Angiectasis																														
Degeneration, Cystic									1																					
Hyperplasia																														
Hypertrophy																														
Vacuolization Cytoplasmic																														
Adrenal Medulla	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																														
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																														
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Hyperplasia																														
Hyperplasia																														

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Experiment Number: 99920-93
 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: 11:57:52
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/10PPBTO CTL	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	
	ANIMAL ID	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	9	0	9	8	8	0	9	9
Pituitary Gland		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pars Distalis, Cyst		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pars Distalis, Hyperplasia		0	0	0	1	2	3	3	3	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9
Pars Intermed, Cyst		2	4	8	1	8	3	6	3	4	6	7	7	8	8	9	9	0	1	1	1	1	4	4	5	5	8	8	8	9
Thyroid Gland		4	7	5	6	1	1	3	4	1	8	8	8	8	8	8	8	8	8	7	9	8	8	5	8	8	5	6	7	0
C Cell, Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst, Squamous																														
Follicle, Cyst																														
Follicular Cel, Hyperplasia																														
General Body System																														
NONE																														
Genital System																														
Coagulating Gland		+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																														
Developmental Malformation																														
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																														
Hypospermia																														
Infiltration Cellular, Lymphocyte																														
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																														
Atrophy																														

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Experiment Number: 99920-93

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: 11:57:52

Route: DOSED FEED

CAS Number: 57-63-6

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Male F3/10PPBTO CTL	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				
	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
ANIMAL ID	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	0	9	8	8	0	9	9	9	9	9					
Duct, Dilatation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Infiltration Cellular, Lymphocyte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Inflammation, Chronic Active	0	0	0	1	2	3	3	3	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9					
Inflammation, Suppurative	2	4	8	1	8	3	3	6	3	4	4	6	7	7	8	8	9	9	0	1	1	1	4	4	5	5	8	8	8	9	9					
Prostate, Dorsal/Lateral Lobe Cyst	4	7	5	6	1	1	4	8	1	2	6	0	7	9	7	8	6	7	3	4	5	5	8	7	8	5	6	7	8	0						
Inflammation, Chronic Active			3		2											4	2	2					2						2		2					
Inflammation, Suppurative									1	1									1									2								
Prostate, Ventral Lobe Hyperplasia																																				
Infiltration Cellular, Lymphocyte	1																																			
Inflammation, Chronic Active																																				
Inflammation, Suppurative																																				
Rete Testes Dilatation	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+			
Fibrosis																																				
Seminal Vesicle Atrophy	+	+	A	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lumen, Dilatation																																				
Testes Polyarteritis																																				
Seminif Tub, Degeneration																																				

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Experiment Number: 99920-93
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: 11:57:53
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

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	
ANIMAL ID	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
ANIMAL ID	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	0	9	9	0	8	8	0	9	
Hyperplasia, Lymphoid									1				1																	
Hyperplasia, Stromal																														
Infiltration Cellular, Polymorphnuclr																														
Pigmentation																														
Thymus	+	+	+	M	A	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy	3		2			4	4	4	4		4	4	3	4	3		3	3	4	4	4	4	4	4	4	4	3	3	4	4
Cyst																														
Epithel Cell, Hyperplasia																														
Integumentary System																														
Mammary Gland	M	M	+	A	M	+	M	M	M	M	M	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration				3																										
Alveolus, Hyperplasia																														
Atypical Focus																														
Ectasia																														
Fibrosis																														
Lactation																														
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion																														
Inflammation, Chronic Active																														
Musculoskeletal System																														
Bone																														
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..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: 99920-93
 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: 11:57:54
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/10PPBTO CTL	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
	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
ANIMAL ID	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	9	0	9	8	8	0	9	9
Skeletal Muscle Degeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nervous System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brain, Brain Stem Compression	0	0	0	1	2	3	3	3	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9
Brain, Cerebellum	2	4	8	1	8	3	3	6	3	4	4	6	7	7	8	8	9	9	0	1	1	1	4	4	5	5	8	8	5
Brain, Cerebrum	4	7	5	6	1	1	4	8	1	2	6	0	7	9	7	8	6	7	3	4	5	5	8	7	8	5	6	7	0
Brain, Cerebrum Gliosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Brain, Cerebrum Hydrocephalus																													
Brain, Cerebrum Peripheral Nerve																													
Brain, Cerebrum Spinal Cord																													
Respiratory System																													
Lung	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lung Alveolar Epith, Hyperplasia																													
Lung Infiltration Cellular, Histiocyte																													
Lung Infiltration Cellular, Lymphocyte																													
Lung Metaplasia, Osseous																													
Lung Polyarteritis																													
Nose	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Nose Inflammation, Chronic Active																													
Nose Inflammation, Suppurative																													
Nose Mucosa, Keratin Cyst																													

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

Experiment Number: 99920-93
 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: 11:57:54
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/10PPBTO CTL	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	
		1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	ANIMAL ID	9	0	8	2	3	6	6	8	5	7	7	8	0	9	2	2	2	2	3	4	4	4	5	4	4	4	5	4	4	4	4	
	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	0	9	8	8	0	9	9	9	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	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	2	3	3	3	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
	2	4	8	1	8	3	3	6	3	4	4	6	7	7	8	8	9	9	0	1	1	1	4	4	5	5	8	8	8	8	9	9	
	4	7	5	6	1	1	4	8	1	2	6	7	9	7	8	8	6	7	3	4	5	5	8	7	8	5	5	6	7	0	3		
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Special Senses System																																	
Ear																																	
Eye	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic Active																																	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration																																	
Infiltration Cellular, Lymphocyte																																	
Lacrimal Gland																																	
Ectopic Harderian																																	
Zymbal's Gland																																	
Inflammation, Suppurative																																	
Urinary System																																	
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst																																	
Hydronephrosis																																	
Nephropathy																																	
Pelvis, Inflammation, Suppurative																																	
Renal Tubule, Hyperplasia																																	
Transit Epithe, Hyperplasia																																	
Urethra																																	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..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: 99920-93
 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: 11:57:54
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/10PPBTO CTL	DAY ON TEST	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
		1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	9	0	9	8	8	0	9	9	
Hemorrhage					4																									
Inflammation, Suppurative					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

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 1) Minimal 3) Moderate
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Experiment Number: 99920-93
 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: 11:57:55
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Dilatation																				1	4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Dilatation																				1	3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Lymphoid Tiss, Hyperplasia																				1	2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis				3																1	3.0
Basophilic Focus		X							X											5	
Bile Duct, Hyperplasia					2	2	1					1	1				1			11	1.5
Biliar Tract, Cyst																				1	
Biliar Tract, Fibrosis										1										7	1.1
Congestion																				1	3.0
Cytomegaly																				1	2.0
Degeneration, Cystic															1			1		6	1.2
Eosinophilic Focus					X							X		X						4	
Hematopoietic Cell Proliferation																				2	1.0

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+ ..Tissue examined microscopically

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:57:55
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

DAY ON TEST	ANIMAL ID																		*TOTALS
	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	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	
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	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	
3	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	
0	5	6	9	1	2	3	4	5	8	7	8	0	1	0	1	1	7	8	
									X						X		X		
Hepatodiaphragmatic Nodule																		4	
Infiltration Cellular, Lymphocyte	1												1					4 1.0	
Inflammation, Chronic Active						1												3 1.0	
Karyomegaly																		1 2.0	
Necrosis																		2 2.5	
Oval Cell, Hyperplasia																		1 1.0	
Tension Lipidosis				2														2 2.0	
Vacuolization Cytoplasmic				1														6 1.7	
Mesentery	+			+					+	+							+	6	
Abscess											4							1 4.0	
Fat, Necrosis	4				2				4									4 3.5	
Oral Mucosa				+														4	
Inflammation, Suppurative																		1 3.0	
Keratin Cyst				X														3	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Acinar Cell, Degeneration	2	2	1		2		2	2	4	2	1	2	2	2	3	3	4	1 36 2.3	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Edema																		2 2.5	
Epithelium, Hyperplasia																		2 2.0	
Hyperkeratosis																		1 2.0	
Inflammation, Chronic Active																		1 2.0	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	

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

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99920-93
 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: 11:57:55
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/10PPBTO CTL**

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

Cardiovascular System

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrium, Dilatation																				1	1.0
Cardiomyopathy	2	2	1	1	2	1			1	2		1	1	2	1	2	2	2	1	38	1.7
Endocardium, Hyperplasia														2						1	2.0
Ventricle, Dilatation																				1	1.0

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Accessory Adrenal Cortical Nodule								X											X	4	
Angiectasis																				1	2.0
Degeneration, Cystic										2		4								5	1.8
Hyperplasia					1															3	1.0
Hypertrophy							2								1					4	2.5
Vacuolization Cytoplasmic	1		1										1							9	1.4
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia							1								2		2			8	1.6
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia						1		1		3		1								8	1.3
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Bilateral, Hyperplasia							3													1	3.0
Hyperplasia	1									1				2	1				1	7	1.4

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+ ..Tissue examined microscopically

X ..Lesion present

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:57:56
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/10PPBTO CTL**

DAY ON TEST	0																		*TOTALS			
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
ANIMAL ID	3																					
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Pars Distalis, Cyst	X									X					X				6			
Pars Distalis, Hyperplasia	1				3				1	1				2		1	2	1	3	15	1.7	
Pars Intermed, Cyst																				2		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
C Cell, Hyperplasia										1										1	4	1.0
Cyst, Squamous				X				X		X				X	X				X		13	
Follicle, Cyst		X																			1	
Follicular Cel, Hyperplasia																					1	2.0
General Body System																						
NONE																						
Genital System																						
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Atrophy																					1	3.0
Developmental Malformation																			X		6	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	2	3		3				3								3					7	2.6
Hypospermia	4	4		4				4							4						8	4.0
Infiltration Cellular, Lymphocyte			2				1														2	1.5
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Abscess																					2	4.0
Atrophy		2																			3	2.7

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 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:57:56
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/10PPBTO CTL**

DAY ON TEST	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
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	1	7	8

***TOTALS**

Duct, Dilatation												2	3			2		2	11	2.4	
Infiltration Cellular, Lymphocyte		2				1			1					1		1			9	1.2	
Inflammation, Chronic Active																			1	2.0	
Inflammation, Suppurative	3				2	2				3			3		2	2		3	24	2.3	
Prostate, Dorsal/Lateral Lobe											+	+	+						50		
Cyst																	X	X	2		
Inflammation, Chronic Active								1											7	2.1	
Inflammation, Suppurative	2	1	2	2	1	2		2	1	1				2	1	2	2	1	2	34	1.8
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia						2												2	2	2.0	
Infiltration Cellular, Lymphocyte																			2	1.0	
Inflammation, Chronic Active																		2	4	2.5	
Inflammation, Suppurative				4															4	2.5	
Rete Testes	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	M	+	43	
Dilatation		3																		4	2.0
Fibrosis							3													1	3.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Atrophy																				4	2.0
Lumen, Dilatation																				3	3.3
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Polyarteritis																				1	3.0
Seminif Tub, Degeneration	4	4		4		4	4		1						4					17	2.7

* ..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: 99920-93
 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: 11:57:56
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

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

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Myeloid Cell, Hyperplasia										2							1	2	12	2.0	
Sinusoid, Dilatation																				1	4.0
Lymph Node				+					+		+	+								13	
Lumbar, Degeneration, Cystic									3			3								7	2.9
Lumbar, Hyperplasia, Lymphoid									3											2	2.5
Lumbar, Infiltration Cellular, Plasma Cell									3											5	2.6
Mediastinal, Degeneration, Cystic																				1	2.0
Popliteal, Hyperplasia, Lymphoid					3															2	3.0
Popliteal, Infiltration Cellular, Plasma Cell					3															2	3.0
Renal, Degeneration, Cystic										3										3	3.7
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic					2	2				2						1			1	11	1.8
Hyperplasia, Lymphoid					3	2	2	2		2	2			3		3	2		2	29	2.0
Infiltration Cellular, Plasma Cell					2	2	1		2	2	2			2	2			2	2	30	2.1
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia, Lymphoid																				1	2.0
Inflammation, Granulomatous										2				2			2	1	1	10	1.6
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Depletion Lymphoid																				1	2.0
Hematopoietic Cell Proliferation														1						8	1.4

* ..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: 99920-93
 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: 11:57:57
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

DAY ON TEST	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
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8

***TOTALS**

Hyperplasia, Lymphoid																				4	1.5
Hyperplasia, Stromal																				2	3.0
Infiltration Cellular, Polymorphnuclr																				1	2.0
Pigmentation	1	2		2	2		2					2	2		1		2			29	1.8
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Atrophy	4	4	4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	4	4	45	3.8
Cyst																				1	
Epithel Cell, Hyperplasia																				1	2.0
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	40	
Acinus, Degeneration	1	4			1	4	4					2	2	3		4				17	2.4
Alveolus, Hyperplasia				1											1				1	4	1.3
Atypical Focus																				1	2.0
Ectasia					2															6	1.5
Fibrosis																				1	4.0
Lactation					2															7	1.7
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst Epithelial Inclusion		X																		2	
Inflammation, Chronic Active					4				4		4							4	4	10	4.0
Musculoskeletal System																					
Bone																				1	
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

* ..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: 99920-93
 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: 11:57:57
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

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

Skeletal Muscle																			3	
Degeneration																			1	2.0
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression																			9	2.3
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gliosis																			1	2.0
Hydrocephalus																			1	1.0
Peripheral Nerve																			2	
Spinal Cord																			0	
Respiratory System																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar Epith, Hyperplasia																			3	1.3
Infiltration Cellular, Histiocyte	1	1																1	1	
Infiltration Cellular, Lymphocyte																			1	2.0
Metaplasia, Osseous																			1	1.0
Polyarteritis																			1	3.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic Active																			1	2.0
Inflammation, Suppurative																			8	1.8
Mucosa, Keratin Cyst																			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: 99920-93
 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: 11:57:57
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7																	
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5																	
	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4																	
	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																	
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1																	
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1																	
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8																	
	*TOTALS																																			
Trachea	+																			50																
Special Senses System																																				
Ear	+																			1																
Eye	+																			48																
Inflammation, Chronic Active																				2	1	2.0														
Harderian Gland	+																			50																
Acinus, Degeneration																				1	3	1.3														
Infiltration Cellular, Lymphocyte																				2	1	2.0														
Lacrimal Gland																				2																
Ectopic Harderian																				2																
Zymbal's Gland																				2																
Inflammation, Suppurative																				1	4.0															
Urinary System																																				
Kidney	+																			50																
Cyst																				X	X	X	X	X	X	X	X	X	X	X	X	X	X	18		
Hydronephrosis																				1	3	3	2.0													
Nephropathy																				1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	44	1.7
Pelvis, Inflammation, Suppurative																				1	2.0															
Renal Tubule, Hyperplasia																				1	2.0															
Transit Epithe, Hyperplasia																				1	2	4	1.5													
Urethra																				1																
Urinary Bladder	+																			49																

* ..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: 99920-93
 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: 11:57:58
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10PPBTO CTL

DAY ON TEST	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	
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	
ANIMAL ID	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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	
	3	3	3	3	6	6	6	6	6	7	9	9	0	0	1	1	1	1	1	
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8	
	*TOTALS																			
Hemorrhage																			1	4.0
Inflammation, Suppurative																			1	3.0

* ..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: 99920-93
 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: 11:57:59
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/50PPBTO CTL	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
ANIMAL ID	0	1	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	9	3	0	5	6	0	2	5	5	7	0	0	0	1	3	4	4	4	4	4	4	4	5	5	5	4	4	4	4
	1	9	4	3	9	8	5	5	5	4	3	9	9	6	8	9	9	9	9	9	9	9	0	0	0	9	9	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	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	0	0	2	3	3	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0
	1	1	1	1	3	0	1	2	2	4	6	7	7	8	0	1	2	5	5	6	6	8	9	9	9	0	0	0	0
	4	9	9	1	2	5	1	4	5	4	9	6	8	1	6	6	2	1	9	0	1	2	9	1	2	8	9	0	0
Stomach, Forestomach	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperkeratosis					2																								
Stomach, Glandular	+	A	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Infiltration Cellular, Lymphocyte	3																												
Cardiovascular System																													
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1		1	3	1	1	1	1			2	2	2	2	1	1	1	2	2	1	1	3	2	2	2	1	1	1	1
Inflammation, Suppurative											2																		
Ventricle, Dilatation																													2
Endocrine System																													
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accessory Adrenal Cortical Nodule																													
Angiectasis																	2												
Degeneration, Cystic																													
Hyperplasia															3	3													2
Hypertrophy																								2	1				1
Vacuolization Cytoplasmic						1										2													2
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																													
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Degeneration	4																												

* ..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: 99920-93
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: 11:58:00
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male F3/50PPBTO CTL	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					
	ANIMAL ID	0	1	5	5	5	6	6	6	6	6	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	7			
		1	9	4	3	9	8	5	5	5	4	3	9	9	6	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9				
Hyperplasia				1							1					1	1					1	1												1					
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+				
Hyperplasia											1																													
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Pars Distalis, Cyst											X									X			X	X																
Pars Distalis, Hyperplasia						1					2	3																									1			
Pars Intermed, Cyst						X			X																															
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
C Cell, Hyperplasia																																						2		
Cyst, Squamous						X				X			X			X																								
General Body System																																								
Tissue NOS					+																																			
Genital System																																								
Coagulating Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy		4							2																															
Developmental Malformation						X	X					X				X							X	X																
Inflammation, Suppurative											4																													
Lumen, Dilatation																																								
Ductus Deferens																																								
Dilatation																																								
Inflammation, Chronic Active																																								
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..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:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:58:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/50PPBTO CTL	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
ANIMAL ID	0	1	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	9	3	0	5	6	0	2	5	5	7	0	0	0	1	3	4	4	4	4	4	4	5	5	5	4	4	4	4	4
	1	9	4	3	9	8	5	5	5	4	3	9	9	6	8	9	9	9	9	9	9	0	0	0	9	9	9	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2	3	3	7	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	1	1	1	1	3	0	1	2	2	4	6	7	7	8	0	1	2	5	5	6	6	6	8	9	9	9	9	9	9
	4	9	9	1	2	5	1	4	5	4	9	6	8	1	6														
Atrophy								2								2					2							3	
Granuloma Sperm															4														
Hypospermia								2								4						4						4	
Polyarteritis															3														
Penis																													
Preputial Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																4													
Atrophy																3													
Duct, Dilatation					4		2				3		4				1												
Infiltration Cellular, Lymphocyte												1										1						2	
Inflammation, Chronic Active																													
Inflammation, Suppurative																													
Keratin Cyst																													
Prostate, Dorsal/Lateral Lobe	+	+																											
Atrophy	4																												
Dilatation																													
Hemorrhage																	2												
Inflammation, Chronic Active																													
Inflammation, Suppurative																													
Prostate, Ventral Lobe	+	+																											
Atrophy	4																												
Dilatation																													
Hemorrhage																													

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Experiment Number: 99920-93
 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: 11:58:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

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

Hyperplasia	1																													
Infiltration Cellular, Lymphocyte	2				1																									
Inflammation, Chronic Active							2					2	1																	
Inflammation, Suppurative			1																							1				
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	M	+	+	+	M	M	+	+	+
Dilatation																														
Seminal Vesicle	+	A	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy	4				3		3		2				2	2											1			2		2
Inflammation, Suppurative															3															
Lumen, Dilatation															2	3														3
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Polyarteritis																														
Seminif Tub, Degeneration					1			2					4		1		2			4	1	1			4			1	4	
Hematopoietic System																														
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Erythroid Cell, Hyperplasia					2								2																	
Hypocellularity																														
Myeloid Cell, Hyperplasia	4					2								4	3		2	4											3	
Lymph Node	+			A		+		+		+	+			+					+	+					+			+	+	+
Axillary, Degeneration, Cystic													1																	
Axillary, Hyperplasia, Lymphoid													3																	
Axillary, Infiltration Cellular, Plasma Cell													3																	

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+ ..Tissue examined microscopically

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M ..Missing tissue

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Experiment Number: 99920-93
 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: 11:58:01
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3/50PPBTO CTL	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	
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	
Hemal, Degeneration, Cystic																														
Lumbar, Degeneration, Cystic																														
Lumbar, Hyperplasia, Lymphoid																														
Lumbar, Infiltration Cellular, Plasma Cell																														
Pancreatic, Hyperplasia, Lymphoid																														
Pancreatic, Inflammation, Granulomatous																														
Pancreatic, Necrosis																														
Popliteal, Hyperplasia, Lymphoid																														
Popliteal, Infiltration Cellular, Plasma Cell																														
Renal, Degeneration, Cystic																														
Lymph Node, Mandibular																														
Degeneration, Cystic																														
Hyperplasia, Lymphoid																														
Infiltration Cellular, Plasma Cell																														
Necrosis																														
Lymph Node, Mesenteric																														
Hyperplasia, Lymphoid																														
Infiltration Cellular, Mast Cell																														
Inflammation, Granulomatous																														
Pigmentation																														
Spleen																														
Depletion Lymphoid																														
Hematopoietic Cell Proliferation																														

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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: 11:58:01

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30), showing counts for various tissues and lesions.

Main data table listing various lesions such as Hyperplasia, Infiltration Cellular, Necrosis, Pigmentation, Thymus, Atrophy, Epithel Cell, Integumentary System, Mammary Gland, Skin, Inflammation, Keratin Cyst, and Musculoskeletal System (Bone, Femur).

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Experiment Number: 99920-93

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: 11:58:02

First Dose M/F: NA / NA

Lab: NCTR

DAY ON TEST	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		
CD Rat Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
F3/50PPBTO CTL	9	3	0	5	6	0	2	5	5	7	0	0	1	3	4	4	4	4	4	4	5	5	5	4	4	4	4	4	4		
	1	9	4	3	9	8	5	5	5	4	3	9	9	6	8	9	9	9	9	9	9	0	0	0	9	9	9	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	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
	0	0	2	3	3	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0		
	1	1	1	1	3	0	1	2	2	4	6	7	7	8	0	1	2	5	5	6	6	6	8	9	9	9	0	0	0		
	4	9	9	1	2	5	1	4	5	4	9	6	8	1	6	6	2	1	9	0	1	2	9	1	2	8	9	0	1	4	5

Nervous System

Brain																																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression																																				
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gliosis																																				
Hydrocephalus																																				

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Alveolar Epith, Hyperplasia																																				
Infiltration Cellular, Histiocyte																																				
Infiltration Cellular, Lymphocyte	4																																			
Inflammation, Chronic Active																																				
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Infiltration Cellular, Lymphocyte	3																																			
Inflammation, Chronic Active																																				
Inflammation, Suppurative																																				
Mucosa, Keratin Cyst																																				
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

Special Senses System

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Experiment Number: 99920-93
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: 11:58:02
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

	DAY ON TEST	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		
Ear		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Eye		0	1	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
Bilateral, Cataract		9	3	0	5	6	0	2	5	5	7	0	0	0	1	3	4	4	4	4	4	5	5	5	4	4	4	4	4	4		
Retina, Degeneration		1	9	4	3	9	8	5	5	4	3	9	9	6	8	9	9	9	9	9	9	0	0	0	9	9	9	9	9	9		
Harderian Gland		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Infiltration Cellular, Lymphocyte		0	0	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	
Inflammation, Suppurative		0	0	2	3	3	7	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
Lacrimal Gland		1	1	1	1	3	0	1	2	2	4	6	7	7	8	0	1	2	5	5	6	6	6	8	9	9	9	9	9	9	9	
Ectopic Harderian		4	9	9	1	2	5	1	4	5	4	9	6	8	1	6	6	2	1	9	0	1	2	9	1	2	8	9	0	1	4	5
Urinary System																																
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst				X	X							X	X			X	X	X			X			X	X		X		X	X		
Hemorrhage			2																													
Hydronephrosis									4			2		4																		
Infiltration Cellular, Lymphocyte		2																														
Inflammation, Suppurative													3																			
Nephropathy				1	1	3	1	3	1	4	1	1	2	4	4	1	1	1	3	1	2	1	1	1	1	2	1	1	2	3	2	3
Polycystic Kidney																													4			
Transit Epithe, Hyperplasia																															4	
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation													4																			

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CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperkeratosis																				1	2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Inflammation, Chronic Active																				1	4.0
Necrosis																				1	4.0
Polyarteritis																				1	2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Inflammation, Chronic Active																				1	3.0
Necrosis																				1	3.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Inflammation, Chronic Active																				1	4.0
Necrosis																				1	4.0
Ulcer																				1	3.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Angiectasis											2									5	1.8
Basophilic Focus																	X	X		7	
Bile Duct, Hyperplasia																				5	1.2
Biliar Tract, Cyst																				1	

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+ ..Tissue examined microscopically

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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: 99920-93
 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: 11:58:03
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	0																		*TOTALS		
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
ANIMAL ID	9																		*TOTALS		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Biliar Tract, Fibrosis																		1	3	1.3	
Cyst Multilocular																		X	1		
Degeneration, Cystic			2															1	1	5	1.4
Eosinophilic Focus																			X	5	
Hematopoietic Cell Proliferation						1														3	1.0
Hepatodiaphragmatic Nodule													X		X		X	X	7		
Hyperplasia																				1	2.0
Inflammation, Chronic Active							4													4	2.5
Inflammation, Suppurative																				1	2.0
Necrosis							4													3	3.0
Oval Cell, Hyperplasia																				1	2.0
Tension Lipidosis																				2	2.0
Vacuolization Cytoplasmic															2					3	2.3
Mesentery																			+	3	
Fat, Necrosis										4										3	4.0
Oral Mucosa																			+	6	
Keratin Cyst																			X	1	
Pancreas																			+	49	
Acinar Cell, Degeneration																			+	40	2.1
Infiltration Cellular, Lymphocyte																			+	1	4.0
Polyarteritis																			+	1	3.0
Salivary Glands																			+	50	
Infiltration Cellular, Lymphocyte																			+	1	4.0

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

+ ..Tissue examined microscopically

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 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: 11:58:03
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/50PPBTO CTL**

DAY ON TEST	0																		*TOTALS	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
ANIMAL ID	9																		*TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperkeratosis																			1 2.0	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Infiltration Cellular, Lymphocyte																			1 3.0	
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cardiomyopathy			2	2	1	2	1	2		1	1	1	1	1	2	3		2	1 1	42 1.5
Inflammation, Suppurative																			1	2.0
Ventricle, Dilatation																			1	2.0
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Accessory Adrenal Cortical Nodule															X					1
Angiectasis						1														2 1.5
Degeneration, Cystic																			1	1 1.0
Hyperplasia												1								4 2.3
Hypertrophy						1														4 1.3
Vacuolization Cytoplasmic															1					4 1.5
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia															2	1		1		10 1.7
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration																				1 4.0

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Experiment Number: 99920-93
 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: 11:58:03
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	ANIMAL ID																		*TOTALS	
	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	10	1.1
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	46	
	9	9	9	9	9	4	4	3	3	2	2	2	2	4	4	5	4	4	6	1.7
Hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Parathyroid Gland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Pituitary Gland	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	2	
Pars Distalis, Cyst	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4	
Pars Distalis, Hyperplasia																			10	1.1
Pars Intermed, Cyst	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Thyroid Gland		2	2									2		2	1				6	1.7
C Cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst, Squamous	X																	X	6	
General Body System	2	2	2	3						2		2		4	1		2		13	2.1
Tissue NOS																			2	
Genital System	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Coagulating Gland																			1	
Atrophy																			2	3.0
Developmental Malformation		X	X	X															9	
Inflammation, Suppurative																			1	4.0
Lumen, Dilatation												2							1	2.0
Ductus Deferens																			1	
Dilatation																			1	4.0
Inflammation, Chronic Active																			1	4.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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Experiment Number: 99920-93
 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: 11:58:04
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4

***TOTALS**

Atrophy	2																			5	2.2	
Granuloma Sperm																				1	4.0	
Hypospermia	4							2					4							7	3.4	
Polyarteritis																				1	3.0	
Penis																				1		
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Abscess													4							2	4.0	
Atrophy																				2	2.0	
Duct, Dilatation			2	1		3		3		3				2		2				12	2.5	
Infiltration Cellular, Lymphocyte	2															1		1	1	7	1.3	
Inflammation, Chronic Active				2													1				2	1.5
Inflammation, Suppurative		2		1		3	4	2	1	3		2		3						22	2.5	
Keratin Cyst							X													2		
Prostate, Dorsal/Lateral Lobe													+							50		
Atrophy																				2	3.5	
Dilatation														2						1	2.0	
Hemorrhage																				1	2.0	
Inflammation, Chronic Active														1		3				5	1.8	
Inflammation, Suppurative	2	2	2	1	1	1	1	2	2	1	2		2		2		2	1	2	36	1.6	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy																				2	3.5	
Dilatation														2						1	2.0	
Hemorrhage																				1	2.0	

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 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4
	*TOTALS																		

Hyperplasia					1					2										3	1.3
Infiltration Cellular, Lymphocyte																				3	1.7
Inflammation, Chronic Active															2			2		5	1.8
Inflammation, Suppurative																				2	1.0
Rete Testes	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Dilatation															2					2	2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Atrophy															2					10	2.3
Inflammation, Suppurative																				1	3.0
Lumen, Dilatation									3			1	3							6	2.5
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Polyarteritis																				1	2.0
Seminif Tub, Degeneration	4		1				2	2	3						4	3	3			19	2.5
Hematopoietic System																					
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Erythroid Cell, Hyperplasia																				2	2.0
Hypocellularity											2						2			2	2.0
Myeloid Cell, Hyperplasia																				7	3.1
Lymph Node											+		+		+					16	
Axillary, Degeneration, Cystic																				1	1.0
Axillary, Hyperplasia, Lymphoid																				1	3.0
Axillary, Infiltration Cellular, Plasma Cell																				1	3.0

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CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	4

***TOTALS**

Hemal, Degeneration, Cystic																			1	2.0
Lumbar, Degeneration, Cystic									2			4							10	3.0
Lumbar, Hyperplasia, Lymphoid									2										3	2.7
Lumbar, Infiltration Cellular, Plasma Cell																			5	3.2
Pancreatic, Hyperplasia, Lymphoid																			1	3.0
Pancreatic, Inflammation, Granulomatous																			1	2.0
Pancreatic, Necrosis																			1	3.0
Popliteal, Hyperplasia, Lymphoid															2				2	2.5
Popliteal, Infiltration Cellular, Plasma Cell															2				2	2.0
Renal, Degeneration, Cystic																			2	4.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Degeneration, Cystic	2		1																7	2.1
Hyperplasia, Lymphoid	2		1		2	2	3	2		2		1			3		2		28	2.1
Infiltration Cellular, Plasma Cell	2	1	2	2	2	2		3		2	2		2				2		28	2.0
Necrosis																			1	3.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Hyperplasia, Lymphoid																			1	4.0
Infiltration Cellular, Mast Cell																	2		1	2.0
Inflammation, Granulomatous																			8	1.6
Pigmentation																			1	3.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Depletion Lymphoid																			1	3.0
Hematopoietic Cell Proliferation				1				4						1					15	2.0

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CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4

***TOTALS**

Hyperplasia, Lymphoid	2																			2	2.0						
Infiltration Cellular, Plasma Cell																				1	2.0						
Infiltration Cellular, Polymorphnuclr																				3	3.0						
Necrosis																				2	2.0						
Pigmentation				2	1	1	2	1	1	3	4						2	2	27	2.0							
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45							
Atrophy	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	43	3.9						
Epithel Cell, Hyperplasia																2	4	1.8									
Integumentary System																											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45							
Acinus, Degeneration			4	3			4	2	2	4						2				3	3	3	3	26	2.8		
Alveolus, Hyperplasia				1								1	2	3								9	1.7				
Duct, Hyperplasia																				1	2.0						
Ectasia														2							4	2.3					
Galactocele																				2							
Lactation				1								2							8	1.9							
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50							
Cyst Epithelial Inclusion																		X								2	
Inflammation, Chronic Active	4	4							4	4	4								13	4.0							
Keratin Cyst																				1							
Musculoskeletal System																											
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50							

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Experiment Number: 99920-93
 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: 11:58:05
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50PPBTO CTL

DAY ON TEST	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
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4
	*TOTALS																		

Nervous System

Brain																				1
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression																				2 3.5
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Gliosis																				1 2.0
Hydrocephalus																				3 1.0

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar Epith, Hyperplasia		1	1		2															4 1.3
Infiltration Cellular, Histiocyte		1	2		2	1						1								14 1.2
Infiltration Cellular, Lymphocyte																				1 4.0
Inflammation, Chronic Active																				1 3.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Infiltration Cellular, Lymphocyte																				1 3.0
Inflammation, Chronic Active																				1 2.0
Inflammation, Suppurative														1						3 2.3
Mucosa, Keratin Cyst																				1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

Special Senses 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: 99920-93
 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: 11:58:06
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/50PPBTO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4	
Ear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Eye	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Bilateral, Cataract	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
Retina, Degeneration	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1	
Harderian Gland	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4	
																				*TOTALS
Ear																				1
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Cataract																				3
Retina, Degeneration																				1 2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Infiltration Cellular, Lymphocyte																				4 1.0
Inflammation, Suppurative																				1 1.0
Lacrimal Gland																				1
Ectopic Harderian																				1
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst	X	X		X	X	X	X			X	X		X	X	X	X	X	X	X	
Hemorrhage																				1 2.0
Hydronephrosis																				3 3.3
Infiltration Cellular, Lymphocyte																				1 2.0
Inflammation, Suppurative																				1 3.0
Nephropathy	2	1	2	1	2	2	3	1	1	2	1	1	4	2	2	3	2	2	1	
Polycystic Kidney																				1 4.0
Transit Epithe, Hyperplasia																				1 4.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Dilatation																				1 4.0

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: 99920-93

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: 11:58:08

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female F3 OPPB	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	
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	
Hyperplasia					2																									
Lymph Node																														
Axillary, Hyperplasia, Lymphoid																														
Axillary, Infiltration Cellular, Plasma Cell																														
Lumbar, Degeneration, Cystic																														
Lumbar, Hyperplasia, Lymphoid																														
Lumbar, Infiltration Cellular, Plasma Cell																														
Popliteal, Degeneration, Cystic																														
Popliteal, Hyperplasia, Lymphoid																														
Popliteal, Infiltration Cellular, Plasma Cell																														
Renal, Degeneration, Cystic																														
Renal, Hyperplasia, Lymphoid																														
Renal, Infiltration Cellular, Plasma Cell																														
Lymph Node, Mandibular	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																														
Hyperplasia, Lymphoid																														
Infiltration Cellular, Plasma Cell																														
Lymph Node, Mesenteric	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																														
Hyperplasia, Lymphoid																														
Infiltration Cellular, Plasma Cell																														
Inflammation, Chronic																														
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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Experiment Number: 99920-93

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: 11:58:08

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female F3 OPPB	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
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
Hematopoietic Cell Proliferation	2		3	1	1					2		3	2	1				2		2	2			2				1	
Pigmentation				1		2	1	2						3		2		2		2	2	3			1	2		2	1
Thymus	+	+	+	+	+	+	+	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst				X		X	X		X					X				X			X	X	X	X					X
Integumentary System																													
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolus, Hyperplasia				1	1	3			3	1	4	1	3		2	2			4	2			2	2	3		2	3	3
Atypical Focus				1	1																								1
Galactocele																			X										
Lactation					1			2				1		2	2				2	1		1	2				1	1	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess													4																
Cyst Epithelial Inclusion				X																									
Inflammation					4						4	2							4			3	4			4			4
Musculoskeletal System																													
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skeletal Muscle								+	+																				
Inflammation, Chronic Active								2																					
Nervous System																													
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression										3			2				3		3	3			2	1	3			2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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M ..Missing tissue
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BLANK ..Not examined microscopically
1-4 ..Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:58:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F3 OPPB	DAY ON TEST	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
Brain, Cerebellum		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrocephalus		4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7
Brain, Cerebrum		4	7	0	1	4	7	7	0	0	4	4	5	5	5	5	7	8	8	9	0	0	2	2	2	4	4	4	4
Hydrocephalus		7	4	4	8	8	1	5	9	2	3	4	1	1	1	6	6	1	0	0	2	8	6	2	6	1	9	9	9
Respiratory System		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lung		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alveolar Epith, Hyperplasia		0	1	2	2	2	3	3	3	4	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9
Artery, Mineralization		0	7	1	4	9	3	4	6	5	5	1	1	2	2	2	3	4	5	6	7	7	9	9	0	2	3	4	6
Hemorrhage		6	4	4	2	8	7	6	7	1	1	3	8	9	2	3	7	8	9	2	1	2	5	2	8	1	3	2	3
Infiltration Cellular, Histiocyte		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																													
Nose																													
Goblet Cell, Hyperplasia																													
Inflammation																													
Nasolacrim Dct, Inflammation																													
Olfactory Epi, Hyaline Droplet																													
Respirat Epith, Hyperplasia																													
Trachea																													
Inflammation																													
Special Senses System																													
Eye																													
Bilateral, Retina, Degeneration																													

* ..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: 99920-93
 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: 11:58:09
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 OPPB

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Angiectasis											2				2						8 2.0
Basophilic Focus							X														1
Bile Duct, Hyperplasia			2			1		1		1		1				1		2			12 1.6
Cyst Multilocular													X								2
Eosinophilic Focus																					2
Hematopoietic Cell Proliferation																					1 2.0
Hepatodiaphragmatic Nodule															X	X		X	X		4
Infiltration Cellular, Lymphocyte																					2 1.0
Inflammation, Chronic Active				1											2	1					10 1.2
Necrosis												1									1 1.0
Periportal, Inflammation, Chronic														1						1	3 1.0
Tension Lipidosis										3				2							2 2.5
Vacuolization Cytoplasmic			2	3	3									1		2	2	1			16 2.2

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Experiment Number: 99920-93
 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: 11:58:09
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 OPPB

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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	
	0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	5	3	
Mesentery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
Fat, Necrosis	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	3
Oral Mucosa	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1	2
Pancreas	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	52
Acinar Cell, Degeneration	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6						23 2.1
Inflammation, Chronic												1									1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Parotid G, Degeneration																					1 4.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Edema																					2 2.5
Hyperplasia																					2 2.0
Inflammation																					3 2.0
Keratin Cyst			X																		1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Cardiovascular System																					
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Cardiomyopathy	1	1	1		2	2	2	2	1	2	1		1	1			1			2	33 1.4
Endocrine System																					
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Atrophy																					1 2.0
Degeneration, Cystic	4	2	3	3	2	3	1	2	2	1	4	4	2	2	3	3	3	3	3	2	48 2.6

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 2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:58:10
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 OPPB

	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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5			
	0	9	0	0	0	0	0	9	9	9	4	4	4	3	5	5	4	5	5	3			
	0	0	0	0	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	0	0	0	0	0	0	1	1	1	1	1	1			
	6	6	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3			
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5		
																					*TOTALS		
Inflammation, Suppurative																					2	1	2.0
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Atrophy	4	2	2	2	2	4	2	3	4	4	4	2	4	2	3	2	3	2		4	4		
Corpus Luteum, Cyst																					1		
Cyst		X	X			X									X	X		X					
Hyperplasia, Sertoliform		1	1				2	1	2	1		1	2		2	2		2					
Interstitial Cell, Hyperplasia						3	2				2									2			
Rete Ovarii, Cyst																	2						
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Adenomyosis																					3	1	3.0
Dilatation																						1	2.0
Endometrium, Hyperplasia	2						2		3			2											
Endometrium, Hyperplasia, Cystic	3					3					2		2	1				2	2				
Hyperplasia, Atypical, Focal							1				2			2						3			
Inflammation																					2	2	2.0
Metaplasia, Squamous																					2	1	2.0
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Inflammation	2	2			2										2			2	1				
Mucocyte, Hyperplasia	2	2	3	3	2	2	3	2	1	2		2		3	2		2	2	2				
Hematopoietic System																							
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
																					52		

* ..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: 99920-93
 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: 11:58:10
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 OPPB

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			
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	1	2.0	
5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	10		
0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	5	5	3			
0	0	0	0	0	0	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	0	0	0	0	0	0	1	1	1	1	1	1			
6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3			
6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5			
Hyperplasia																					1	2.0	
Lymph Node	+														+	+					10		
Axillary, Hyperplasia, Lymphoid																					1	2.0	
Axillary, Infiltration Cellular, Plasma Cell																					2	3.5	
Lumbar, Degeneration, Cystic	3												3	3							8	2.5	
Lumbar, Hyperplasia, Lymphoid	2												3	3							6	2.3	
Lumbar, Infiltration Cellular, Plasma Cell	3												3	3							9	2.9	
Popliteal, Degeneration, Cystic																					1	3.0	
Popliteal, Hyperplasia, Lymphoid																					1	2.0	
Popliteal, Infiltration Cellular, Plasma Cell																					2	3.0	
Renal, Degeneration, Cystic																					1	2.0	
Renal, Hyperplasia, Lymphoid																					1	2.0	
Renal, Infiltration Cellular, Plasma Cell																					1	4.0	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51		
Degeneration, Cystic													2						2	2	6	2.0	
Hyperplasia, Lymphoid				2	2						2	2								2	12	2.0	
Infiltration Cellular, Plasma Cell	3		2	2	3	2	3	2		3	2	3	3	2	2	2	2		3	3	3	42	2.3
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51		
Degeneration, Cystic																				3	1	3.0	
Hyperplasia, Lymphoid					2																5	2.2	
Infiltration Cellular, Plasma Cell																					2	2.0	
Inflammation, Chronic														3							1	3.0	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52		

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 + ..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: 99920-93
 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: 11:58:10
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 OPPB

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															
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	14	1.8													
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	27	1.7													
	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50														
	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	16														
	9	9	9	9	9	9	9	9	9	0	0	0	0	0	1	1	1	1	1	1															
	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3															
	6	7	0	1	2	7	7	8	9	3	6	7	1	2	5	6	2	3	7	0															
Hematopoietic Cell Proliferation																				1	14	1.8													
Pigmentation	2	1	2		2	2	1	2					1		2	1		1	2	1	27	1.7													
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50														
Cyst																				X	X	X								X	X	16			
Integumentary System																																			
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52														
Alveolus, Hyperplasia	3	1	3		1	2	2	3		1		2	2	3	3	3		3	3	2	1	35	2.3												
Atypical Focus	2	2			1								2		3	3		2	3	1		12	1.8												
Galactocele	X																					2													
Lactation	3		1			2	2			1									3	2	1	19	1.6												
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52													
Abscess																				1	4.0														
Cyst Epithelial Inclusion																				1															
Inflammation	4		4	4								4		4	4	4						15	3.8												
Musculoskeletal System																																			
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52													
Skeletal Muscle																				3															
Inflammation, Chronic Active																				1	2.0														
Nervous System																																			
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52													
Compression	2																				2											3	2	13	2.4

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 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:58:11
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 OPPB**

	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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5			
	0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	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	1	1	1	1	1	1	1	1	1	1	1	1			
	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1			
	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3			
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	2	3	7	0			
																					*TOTALS		
Brain, Cerebellum	+																				51		
Hydrocephalus																					1	2.0	
Brain, Cerebrum	+																				52		
Hydrocephalus																					1	2.0	
Respiratory System																							
Lung	+																				52		
Alveolar Epith, Hyperplasia																					1	3.0	
Artery, Mineralization																					1	1.0	
Hemorrhage																					2	2.0	
Infiltration Cellular, Histiocyte																					10	1.2	
Inflammation																					1	2.0	
Nose	+																				52		
Goblet Cell, Hyperplasia																					3	2.0	
Inflammation																					8	1.8	
Nasolacrim Dct, Inflammation																					26	1.8	
Olfactory Epi, Hyaline Droplet																					15	1.8	
Respirat Epith, Hyperplasia																					1	2.0	
Trachea	+																				52		
Inflammation																					2	1.0	
Special Senses System																							
Eye	+																				52		
Bilateral, Retina, Degeneration																					3	2.3	

* ..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: 99920-93
 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: 11:58:11
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 OPPB**

DAY ON TEST	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	
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	
	0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	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	1	1	1	1	1	1	1	1	1	1	1	1	
	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1	
	6	6	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3	
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5
	*TOTALS																				
Inflammation																				1	3.0
Retina, Degeneration																				2	1.5
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																				52	
Infiltration Cellular, Lymphocyte																				3	1.3
Inflammation																				1	1.0
Inflammation																				1	1.1
Urinary System																					
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst																				10	
Hydronephrosis																				2	2.0
Inflammation																				3	1.7
Mineralization	1						1		1			1		2			2		2		
Nephropathy	2	1	1	2		2	3	2	1	2		1		1			1		2		
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																				52	

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 2) Mild 4) Marked

Experiment Number: 99920-93
 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: 11:58:11
 First Dose M/F: NA / NA
 Lab: NCTR

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

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

Alimentary System

Esophagus	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Large, Cecum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Large, Rectum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Duodenum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Ileum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Intestine Small, Jejunum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Angiectasis													1	1																							
Basophilic Focus					X					X																											
Bile Duct, Hyperplasia						2				1								2	2		1	2	1					2									
Centrilobular, Necrosis																		3																			
Cyst																																					
Degeneration, Cystic														2							1																
Eosinophilic Focus													X																								
Hematopoietic Cell Proliferation																																			1		
Hepatodiaphragmatic Nodule					X					X																											
Inflammation, Chronic Active																																			1	1	
Left Lat Lobe, Developmental Malformation										X																											
Median Lobe, Developmental Malformation																																				X	
Necrosis																																				1	3

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+ ..Tissue examined microscopically
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 I ..Insufficient tissue

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1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-93

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: 11:58:12

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female F3/2PPB TO CTL	DAY ON TEST																														
	0 4 1 8	0 4 9 5	0 5 2 2	0 5 4 1	0 5 4 8	0 5 5 7	0 5 9 7	0 6 0 9	0 5 9 9	0 6 2 4	0 6 2 1	0 6 7 3	0 6 8 0	0 6 8 3	0 6 9 6	0 7 0 0	0 7 1 8	0 7 2 6	0 7 2 6	0 7 3 6	0 7 4 9	0 7 4 9	0 7 4 9	0 7 4 9	0 7 4 9	0 7 4 9	0 7 5 3	0 7 5 3	0 7 6 8	0 7 6 8	
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
Periportal, Inflammation, Chronic	1																														
Tension Lipidosis	2																														
Vacuolization Cytoplasmic	3 2 2 4 2 2 2 3																														
Mesentery	+																														
Fat, Necrosis	3																														
Oral Mucosa	+																														
Gingival, Inflammation	3																														
Keratin Cyst	X																														
Pancreas	+ A +																														
Acinar Cell, Degeneration	1 3 3 2 2 1 1 2 2 2 3 1 1 2 1 3 2 3																														
Inflammation, Chronic	2 1 2																														
Lipomatosis	3																														
Salivary Glands	+ +																														
Stomach, Forestomach	+ A +																														
Stomach, Glandular	+ A +																														
Tongue	+																														
Cardiovascular System																															
Blood Vessel	+ +																														
Heart	+ +																														
Cardiomyopathy	1 1 1 1 1 3 1 2 1 1 1 1																														
Endocrine System																															
Adrenal Cortex	+ +																														

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Experiment Number: 99920-93
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: 11:58:13
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female F3/2PPB TO CTL	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		
	ANIMAL ID	4	4	5	5	5	5	6	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	1	9	2	4	4	5	9	0	9	2	2	7	8	8	9	0	0	1	2	2	3	4	4	4	4	4	4	4	4	5	5	4			
	8	5	2	1	8	7	7	9	9	4	1	3	0	3	6	0	8	8	2	2	6	3	9	9	9	9	9	9	0	0	0	9			
Hemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
Inflammation	2		1						1				2		2	2		3	2	2							2								
Mucocyte, Hyperplasia			1	1	2			3	2	3		3	3	2	4	2	3		2		2	2	3	2	2	2	2		3		2				
Hematopoietic System																																			
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymph Node											+										+	+	+	+				+		+		+			
Axillary, Infiltration Cellular, Plasma Cell																																			
Lumbar, Degeneration, Cystic																				2		4	3	3									3		
Lumbar, Hemorrhage																																			
Lumbar, Hyperplasia, Lymphoid												2									2		2	3									2		
Lumbar, Infiltration Cellular, Plasma Cell												2									2		3	3					3		3		3		
Popliteal, Degeneration, Cystic																																		2	
Popliteal, Hyperplasia, Lymphoid																																		2	2
Popliteal, Infiltration Cellular, Plasma Cell																																	4	4	
Renal, Degeneration, Cystic																																			3
Renal, Hyperplasia, Lymphoid																																			3
Renal, Infiltration Cellular, Plasma Cell																											3								
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																	1			2		2						2							
Hyperplasia, Lymphoid															2											2		2							
Infiltration Cellular, Plasma Cell	2	2	2		3	2	2		2	2	2	2	2						3	2		2	3		3	2	3	2	2		1	3	3		
Lymph Node, Mesenteric	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..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: 99920-93
 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: 11:58:14
 First Dose M/F: NA / NA
 Lab: NCTR

DAY ON TEST	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
CD Rat Female	4	4	5	5	5	5	5	6	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
F3/2PPB TO CTL	1	9	2	4	4	5	9	0	9	2	2	7	8	8	9	0	0	1	2	2	3	4	4	4	4	4	4	5	5
	8	5	2	1	8	7	7	9	9	4	1	3	0	3	6	0	8	8	2	6	6	9	9	9	9	9	9	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	2	2	2	3	3	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	
	0	0	4	8	9	1	9	0	0	1	4	5	5	6	6	7	8	8	9	0	2	3	3	3	3	4	6	7	
	8	5	9	4	9	2	9	6	3	8	0	4	7	4	8	3	5	9	9	3	8	1	2	4	5	3	8	3	

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Cataract			X																									
Bilateral, Retina, Degeneration											2																	
Cataract				X																								
Retina, Degeneration				2																	2							
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia					2																	1					1	
Infiltration Cellular, Lymphocyte																						1						
Inflammation															2		1	1							1			

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst	X					X	X					X		X	X											X	X	
Epithelium, Pelvis, Hyperplasia					2																							
Hydronephrosis	2																											
Infiltration Cellular, Lymphocyte																												
Inflammation																		1	2							2	1	
Mineralization	1	1			2					2	1				1	1				1				1				
Nephropathy	2		1			1			1	1	2	1			1	4	1	1			2	1		1		1	2	
Urinary Bladder	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99920-93
 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: 11:58:14
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9
ANIMAL ID	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	9	9	9	2	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	2	3	4

***TOTALS**

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis	1	1													1				5 1.0
Basophilic Focus									X										3
Bile Duct, Hyperplasia	1			2			1			2		1		1			1	1	16 1.4
Centrilobular, Necrosis																			1 3.0
Cyst																			1
Degeneration, Cystic	3																		3 2.0
Eosinophilic Focus										X			X						3
Hematopoietic Cell Proliferation			1					1											3 1.0
Hepatodiaphragmatic Nodule												X						X	4
Inflammation, Chronic Active	1			1						1									5 1.0
Left Lat Lobe, Developmental Malformation																			1
Median Lobe, Developmental Malformation																			1
Necrosis										2									3 2.0

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Experiment Number: 99920-93
 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: 11:58:15
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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				
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4				
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	5	5	9	7				
	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				
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
	8	1	2	2	5	7	7	8	8	8	8	9	9	9	2	3	3	3				
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	2	3	4				
	*TOTALS																					
Periportal, Inflammation, Chronic											2						1	3	1.3			
Tension Lipidosis												2	2						3	2.0		
Vacuolization Cytoplasmic													3	3						11	2.5	
Mesentery																		3				
Fat, Necrosis																			2	3.0		
Oral Mucosa																				+	4	
Gingival, Inflammation																					1	3.0
Keratin Cyst																				X	2	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Acinar Cell, Degeneration	1	1	2	1	1	2	2		2		2	2	1		2		1	1	1			
Inflammation, Chronic			1																4	1.5		
Lipomatosis																		1	3.0			
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Tongue																		1				
Cardiovascular System																						
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Cardiomyopathy			1	1	2	2		1		1	1	1	1		2		1	1				
																		28	1.3			
Endocrine System																						
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
																		50				

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Experiment Number: 99920-93
 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: 11:58:15
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7
ANIMAL ID	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	8	1	2	2	5	7	7	8	8	8	8	9	9	9	2	3	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	2	3	3	4

***TOTALS**

Angiectasis																				1	3.0
Degeneration, Cystic	3	3	3	3		1	1	2	2	3	3	3	3	2	3	2	3	3	1	42	2.4
Hypertrophy					2															9	2.0
Infarct																				1	2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																				1	3.0
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia										2										1	2.0
Parathyroid Gland	+	+	+	M	M	M	+	+	+	+	+	+	+	+	+	+	+	+	45		
Hyperplasia																				1	2.0
Thrombosis																				1	3.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis					2															2	2.0
Pars Distalis, Cyst														X						1	
Pars Distalis, Hyperplasia																				3	2.3
Pars Intermed, Cyst																				1	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
C Cell, Hyperplasia															2					3	2.3
Ultimobranchial Cyst			2			3								2			3			5	2.4

General Body System

NONE

Genital System

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

+ ..Tissue examined microscopically

X ..Lesion present

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M ..Missing tissue

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Experiment Number: 99920-93
 Test Type: SPECIAL STUDY
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 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 11:58:15
 First Dose M/F: NA / NA
 Lab: NCTR

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

	DAY ON TEST																				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4			
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7		
	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		
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3		
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4		
																			*TOTALS		
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																3				5	2.2
Duct, Dilatation			2							2					2		2			13	2.1
Duct, Hyperplasia, Squamous							2													1	2.0
Infiltration Cellular, Mast Cell																				1	3.0
Inflammation	2	2	4	1		2	2	2	1		3	3	4				2	1	2	26	2.2
Keratin Cyst																			X	1	
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	4	1	3	3	1	2	2	4	1	3	2	2	2	2	4	2	4	2	2	46	2.8
Corpus Luteum, Cyst						X							X							2	
Cyst	X							X		X			X	X					X	12	
Hyperplasia, Sertoliform	1	1	1	2		2		3	1		2		1				1		1	20	1.8
Interstit Cell, Hyperplasia															3				2	3	2.3
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Adenomyosis																			4	1	4.0
Atrophy																				1	2.0
Dilatation																				1	3.0
Endometrium, Hyperplasia	2														3					6	2.0
Endometrium, Hyperplasia, Cystic	3	2									1									9	2.1
Hyperplasia, Atypical, Focal			1		1			1	1		2				1	1		1		16	1.4
Metaplasia, Squamous															1					4	1.5
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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 1) Minimal 3) Moderate
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Experiment Number: 99920-93
 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: 11:58:15
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	7
ANIMAL ID	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3

***TOTALS**

Hemorrhage																			1	3.0	
Inflammation			2		2			1					2				1	1	16	1.8	
Mucocyte, Hyperplasia	1	4	2	4	2	2	4		1	4	1	3	2	1	1	2		3	3	39	2.3
Hematopoietic System																					
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node	+	+	+	+				+	+			+	+	+			+			17	
Axillary, Infiltration Cellular, Plasma Cell								2												1	2.0
Lumbar, Degeneration, Cystic	3	2	3	3				3					2	2	2			3		14	2.7
Lumbar, Hemorrhage															3					1	3.0
Lumbar, Hyperplasia, Lymphoid			3	3	2								3	3				2		11	2.5
Lumbar, Infiltration Cellular, Plasma Cell	2	3	3	3				4				3	3	3				3		15	2.9
Popliteal, Degeneration, Cystic	2								2											3	2.0
Popliteal, Hyperplasia, Lymphoid									2				3	2						5	2.2
Popliteal, Infiltration Cellular, Plasma Cell	4							3	3			3	3							7	3.4
Renal, Degeneration, Cystic	3																			2	3.0
Renal, Hyperplasia, Lymphoid																				1	3.0
Renal, Infiltration Cellular, Plasma Cell	3																			2	3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic			2		4							2				3			2	9	2.2
Hyperplasia, Lymphoid												2						2		9	2.0
Infiltration Cellular, Plasma Cell	3	3	3	3	2			2	2	2	2		2	2	3		3	2	3	38	2.3
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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1) Minimal 3) Moderate

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Experiment Number: 99920-93
 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: 11:58:16
 First Dose M/F: NA / NA
 Lab: NCTR

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

DAY ON TEST	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	
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4	
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7
ANIMAL ID	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	
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
	8	1	2	2	5	7	7	8	8	8	8	9	9	9	2	3	3	3	
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	2	3	4	

***TOTALS**

Hyperplasia, Lymphoid																				2	2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hematopoietic Cell Proliferation	2	1						3												15	1.9
Hyperplasia, Lymphoid																				2	2.5
Pigmentation		2		2			1			2	2	1			3	1	2		2	26	1.8
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Cyst	X				X				X	X	X	X		X		X		X		19	
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Alveolus, Hyperplasia	3	3	3	4		3	3	3		4	1	3	2	3	3	1	2	3	2	36	2.5
Atypical Focus	2	3	1	1		3	3	1		1	1	1		2	2	2	2	2		21	1.7
Galactocele																				1	
Lactation	2														2					6	1.8
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Abscess																				1	4.0
Inflammation	4	4		4	4	4		4	4				4	4			4			21	4.0
Musculoskeletal System																					
Bone																				1	
Cartilage, Sternum, Degeneration																				1	3.0
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Skeletal Muscle																				4	
Head, Hyalinization, Focal																				1	3.0

* ..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: 99920-93
 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: 11:58:16
 First Dose M/F: NA / NA
 Lab: NCTR

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

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

Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression	1									2		1			3				11 2.2
Hemorrhage																			1 2.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Peripheral Nerve																			1
Spinal Cord																			1

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar Epith, Hyperplasia							2		2						1				4 1.5
Infiltration Cellular, Histiocyte	1				1	2		2		2	1		1				2		14 1.5
Inflammation																			4 1.0
Mineralization																			1 2.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Goblet Cell, Hyperplasia				1				1											3 1.0
Inflammation																			2 2.0
Nasolacrim Dct, Inflammation			2	2	2		2	2	2		1	2	2	2	2		2		34 1.9
Olfactory Epi, Hyaline Droplet				2						2					2				8 1.9
Respirat Epith, Hyperplasia																			1 3.0
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation																			2 1.5

* ..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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CD Rat Female
F3/10PPBTO CTL

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Dilatation																															
Inflammation, Chronic	3																														
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation																															
Inflammation, Chronic	3																														
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+
Lymphoid Tiss, Inflammation, Chronic Active	3																														
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+
Inflammation, Chronic	3																														
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																															
Bile Duct, Hyperplasia			2		1	3			2					1					2		2				1					1	1
Cyst Multilocular																															
Degeneration, Cystic																															
Eosinophilic Focus																X														X	
Hematopoietic Cell Proliferation																													1		
Hepatodiaphragmatic Nodule																															

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

+ ..Tissue examined microscopically

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I ..Insufficient tissue

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

Infiltration Cellular, Lymphocyte

3

Cardiovascular System

Blood Vessel

+ +

Heart

+ +

Cardiomyopathy

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 2 1 1 1

Endocrine System

Adrenal Cortex

+ +

Angiectasis

1 2

Atrophy

2

Degeneration, Cystic

1 1 2 2 2 2 4 3 3 3 2 2 2 4 4 2 2 1 3 3 2

Hypertrophy

1 1 2

Adrenal Medulla

+ +

Islets, Pancreatic

+ +

Parathyroid Gland

+ M + + + + M + + + +

Inflammation

2

Pituitary Gland

+ +

Pars Distalis, Hyperplasia

2 3 4

Thyroid Gland

+ +

C Cell, Hyperplasia

2 2

Cyst

X

Inflammation, Chronic

1

Ultimobranchial Cyst

2 3 3

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:58:18

First Dose M/F: NA / NA

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD Rat Female
F3/10PPBTO CTL | 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 | | |
| | | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 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 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 2 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |

General Body System

Tissue NOS

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 3 | | | | | | | 2 | | | | 2 | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | 2 | | | | | 3 | | 3 | | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Duct, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Duct, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation | | 1 | 2 | 2 | | | | | | 2 | 2 | 2 | | 3 | 2 | | 2 | 1 | | 2 | | 3 | | | 3 | | | 4 | | | | | | | | | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 3 | | 2 | 4 | 4 | | 3 | 3 | 3 | 2 | 1 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 1 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 2 | 3 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Corpus Luteum, Cyst | | | | | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | X | | | X | | | | | X | X | | X | X | | | | | | X | X | | | | X | | | | | | | | | | | | X | |
| Hyperplasia, Sertoliform | | | | | | | 2 | 1 | | | 2 | 1 | 2 | 2 | 2 | | 2 | 2 | | 4 | 2 | 1 | 1 | | | 1 | | | 3 | 1 | | | | | | | | | | |
| Rete Ovarii, Cyst | | | | | | | | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Endometrium, Hyperplasia | | | | | | | 2 | | | | | | | | | | 3 | 2 | | | | | | | | | | | | | | | | | | | | | | 2 |

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

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**CD Rat Female
 F3/10PPBTO CTL**

| | 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 | | | |
| | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 9 | 9 | 9 | |
| 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 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | |
| | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 2 | 3 | 3 | |
| | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 7 | | |
| Endometrium, Hyperplasia, Cystic | | | | | 1 | | | | | 2 | 3 | | 2 | | | | | 3 | 2 | | | | 2 | | | | | | | | |
| Hyperplasia, Atypical, Focal | | | | 1 | | | 1 | | | | 1 | 2 | 3 | | | | | 2 | | | 3 | | | | | | 1 | 1 | 2 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | 2 | | 1 | | | | | | | | | | | | | | | 2 | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 3 | | 3 | 2 | 1 | | | 3 | 2 | | | | | | | | | 2 | | 2 | 2 | 1 | 1 | | 2 | 2 | 2 | | | 1 | |
| Mucocyte, Hyperplasia | | | 3 | 2 | | 2 | | 1 | 2 | 3 | 1 | 2 | | 2 | | 3 | | 2 | 1 | 3 | | 3 | 2 | 2 | 3 | | 2 | 3 | 1 | 3 | 2 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Myeloid Cell, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | + | | | | | | | | | | | + | | + | | + | | | | | | | | | | | | + |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | 2 | | | | | 3 | | | | | | | | | | 3 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Popliteal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* ..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: 99920-93
 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: 11:58:19
 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 | | | | | | | | | |
| | | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | | | | | | | |
| | | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | | | | | | | |
| | | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 9 | 9 | | | | | | | | |
| CD Rat Female
F3/10PPBTO CTL | 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 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | | | | | | |
| | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | | | | | | |
| | 2 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 3 | 5 | 8 | 9 | 2 | 2 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 7 | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | 1 | | | | | 2 | | | | 2 | | 2 | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | 2 | | | | | | | | | | | | | 2 | | 2 1 3 | | | | | | | | | | | | | | 2 | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | 3 | 2 | 3 | | | | | | | | | | | | | | 3 | 2 | 2 | 3 | 3 | 2 2 | | 2 | 2 | 2 | 2 | 3 | 2 | 2 | | 3 | 2 | 2 | 2 | 2 | 2 | 4 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | 2 | | 2 | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 2 | | | | | | |
| Infiltration Cellular, Plasma Cell | | 2 | | | | | | | | | | | | | 2 | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| Hematopoietic Cell Proliferation | | 2 | | 4 | | | 2 2 | | 1 | | | | | | | | | | | | 2 2 | | 2 2 | | | | | | | | | | | | | | | | |
| Hyperplasia, Histiocytic, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | 2 | | | 1 2 | | | | | | | | | | | | | 2 2 | | 2 | | 2 2 | | 1 2 2 | | 3 | | | 1 | | | | | | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | | | | | | |
| Cyst | | X | | | X | | | | | | | X | X | | | | | | X | X | X X X | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| Alveolus, Hyperplasia | | 3 | | | 2 | | | | | | | | | | | | | 2 2 3 | | 2 2 | | 1 1 | | 2 4 | | 2 4 3 | | 2 2 3 | | 2 1 3 3 | | | | | | | | | |
| Atypical Focus | | | | | | | | | | | | | 2 | | 3 2 | | 1 1 | | 1 | | 1 | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | 2 | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | 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

Experiment Number: 99920-93
 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: 11:58:19
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F3/10PPBTO CTL | 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 | | | |
| ANIMAL ID | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | |
| | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | |
| | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 2 | 3 | 3 | 3 | |
| | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 8 | 4 | 9 | 9 | 9 | 9 | 9 | | |
| Lactation | | | | | 1 | | | | | | | 2 | 2 | 2 | 1 | | 3 | 2 | | | | | 2 | | 2 | 3 | 3 | 2 | 2 | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Epidermis, Necrosis | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | 2 | | | | | 4 | | | | | | | | | | | | | | 4 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | | | | 2 | | 3 | | | | | | | | | 2 | 2 | 3 | | | 1 | 3 | 3 | | 3 | 2 | 3 | 3 | | 3 | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 2 | | 2 | | | | | 2 | | 1 | | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hydrocephalus | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Edema | | | | 2 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Infiltration Cellular, Histiocyte | | | | 3 | | | | | | | 1 | | 2 | | | | | 1 | | 2 | 2 | | | | | | 1 | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99920-93

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: 11:58:19

Route: DOSED FEED

CAS Number: 57-63-6

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

| CD Rat Female
F3/10PPBTO CTL | 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 | | | |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| | | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 2 | 3 | 3 |
| | | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 7 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Inflammation | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peribronchial, Inflammation, Chronic | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perivascular, Inflammation | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Goblet Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nasolacrim Dct, Inflammation | 2 2 1 2 2 1 2 2 2 2 2 2 2 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epi, Hyaline Droplet | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ear | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + A + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Retina, Degeneration | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | X X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phthisis Bulbi | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 4 1 1 2 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
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Experiment Number: 99920-93
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
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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: 11:58:20
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

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

Alimentary System

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Dilatation | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Dilatation | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoid Tiss, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | 2 | | | | | | | | 2 | | | | | 2 2.0 |
| Bile Duct, Hyperplasia | | | | | 1 | | 2 | 2 | | | | | | | 1 | | | | | 14 1.6 |
| Cyst Multilocular | | | | | | | | | | | | | | | X | | | | | 1 |
| Degeneration, Cystic | | | | | | | 3 | | | | | | | | | | | | | 1 3.0 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | 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: 99920-93
 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: 11:58:20
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 8 | 9 | 2 | 2 | 2 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 5 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Periportal, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | 3 | | | | 1 | 3.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | 3 | 1 | 2 | | 2 | 3 | 2 | 10 | 2.1 | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | + | + | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | 3 | 3.0 | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | + | + | | 7 | | | | | | | | | | | | | | | | | | | | | | | |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 | | | | | | | | | | | | | | | | | | | | | | | |
| Gingival, Inflammation | | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 | | | | | | | | | | | | | | | | | | | | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | | |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | 2 | | | | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | | 21 | 1.9 | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 | | | | | | | | | | | | | | | | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | | | | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* ..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: 99920-93
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
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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: 11:58:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 5 |
| ANIMAL ID | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 3 | 3 |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 8 |

***TOTALS**

Infiltration Cellular, Lymphocyte 1 3.0

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | 1 | | | 2 | 2 | | 2 | 1 | | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 24 1.3 |

Endocrine System

| | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | 2 | | | | | | | | | 3 1.7 | |
| Atrophy | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Degeneration, Cystic | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | 1 | 3 | 1 | 2 | 2 | | 1 | 1 | 1 | 38 2.3 |
| Hypertrophy | | | | | | | | | | | | | | | 2 | | | | | 4 1.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 47 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | 1 | | | 4 2.5 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C Cell, Hyperplasia | | | | 1 | | | | | | | | | | | | | | | | 3 1.7 |
| Cyst | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | 3 2.7 |

* ..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: 99920-93
 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: 11:58:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

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

General Body System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|-----|-----|---|----|-----|
| Tissue NOS | | | | | | | | | | | | | | | | | | | + | 1 | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | | | | | |
| Atrophy | | | | | | | 2 | | | | | | | 3 | | | | | | | 6 | 2.5 | | | | | |
| Duct, Dilatation | 2 | | | | | | | 3 | | | | | | | 3 | | | | | | | 7 | 2.6 | | | | |
| Duct, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | | |
| Duct, Inflammation | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | |
| Inflammation | 2 | 2 | 2 | | | | 2 | | | | 3 | 2 | | | | 1 | 2 | | | | 3 | 1 | 24 | 2.1 | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | X | 1 | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | |
| Atrophy | 2 | 2 | 4 | 3 | 2 | 4 | | | | | | | 4 | 2 | 2 | 2 | 2 | 3 | | | | 4 | 2 | 1 | 3 | 45 | 2.9 |
| Corpus Luteum, Cyst | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Cyst | | | | X | | | | | X | | | | | X | X | | | | | | | 15 | | | | | |
| Hyperplasia, Sertoliform | 1 | 2 | 3 | | | 2 | 1 | | | | 3 | 2 | 1 | | | | 4 | | | | 1 | 26 | 1.9 | | | | |
| Rete Ovarii, Cyst | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | |
| Adenomyosis | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | |
| Atrophy | | | | | 2 | | | | | | | | | | | | | | | 2 | 2.5 | | | | | | |
| Endometrium, Hyperplasia | | | 1 | 2 | 3 | | | | | | | | | | | | | | | 8 | 2.3 | | | | | | |

* ..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
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 1-4 ..Lesion qualified as:
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Experiment Number: 99920-93
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 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 | |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | |
| ANIMAL ID | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 8 | 9 | 2 | 2 | 2 | 3 | 3 | |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 | 8 |
| | *TOTALS | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|-----|---|---|---|---|---|---|---|---|----|-----|---|----|--|
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | 1 | 3 | 9 | 2.1 | | | | | | | | | | | | | | | |
| Hyperplasia, Atypical, Focal | | | | | | | | | | | | | | | | | | 1 | 2 | 15 | 1.6 | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | 2 | | 2 | 1.5 | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | 3 | 1.7 | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | | | | | | | | |
| Epithelium, Atrophy | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | 1 | 3 | 2 | 3 | 20 | 2.0 | | | | | | | | | | | | | |
| Mucocyte, Hyperplasia | 2 | 3 | 3 | 2 | | | | | | | | | | | | | | | | | | 3 | 2 | 3 | 3 | 1 | 3 | 1 | 3 | 2 | 2 | 36 | 2.3 | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 10 | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | 2 | 3 | 3 | 3 | 7 | 2.7 | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | 2 | 3 | 3 | 3 | 6 | 2.5 | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | 3 | 3 | 3 | 3 | 6 | 3.2 | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | | | | | | | | | | |
| Popliteal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | | | | | | | | | | | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | | | | | | | | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | | | | | | | | | |

* ..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: 99920-93
 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: 11:58:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 7 | 8 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 8 | 9 | 2 | 2 | 2 | 3 | 3 |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 2 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Degeneration, Cystic | | | | 2 | 4 | 2 | | | | | | | | | | | | | | 8 | 2.3 | |
| Hemorrhage | | | | | | | | | | | | 2 | | | | | | | | 1 | 2.0 | |
| Hyperplasia, Lymphoid | | | | 2 | | | | | 2 | | | 2 | | | | | | | | 9 | 2.0 | |
| Infiltration Cellular, Plasma Cell | 2 | 3 | 2 | 3 | | 2 | 3 | 2 | 3 | 2 | 2 | | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 40 | 2.4 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 | | | | | | | | 5 | 2.0 | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 3 | 2.0 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | 1 | | | | | 1 | | 12 | 1.9 | |
| Hyperplasia, Histiocytic, Focal | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Pigmentation | | 2 | 1 | | 1 | | 2 | 3 | 2 | 1 | 1 | | 2 | 1 | | 2 | | | | 24 | 1.7 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Cyst | | | X | X | | X | | X | X | | | | | | | X | X | X | | 17 | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Alveolus, Hyperplasia | 3 | 3 | 2 | 4 | 3 | 4 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | | | 2 | 1 | 1 | 40 | 2.4 |
| Atypical Focus | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | | | 1 | | 1 | 3 | 3 | | | | 22 | 1.7 | |
| Duct, Dilatation | | | | | | | | | | 2 | | | | | | | | | | 3 | 2.7 | |
| Galactocele | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | 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

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 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 11:58:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 | | | |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | | | |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | | |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 2 | 3 | 3 | | | |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 | 8 | | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | |
| Lactation | | | 2 | | 2 | | | | 2 | | 2 | | | | | | | | 17 | 2.1 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Epidermis, Necrosis | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | 8 | 3.8 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Compression | | | | | | | | | | | | | | | | | | | 19 | 2.5 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 4 | 1.8 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Edema | | | | | | | | | | | | | | | | | | | 3 | 1.7 | | |
| Infiltration Cellular, Histiocyte | 1 | 2 | | | | | | | | | | | | | 1 | 2 | | | | | 11 | 1.6 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | 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
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Experiment Number: 99920-93
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**CD Rat Female
 F3/10PPBTO CTL**

| DAY ON TEST | 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 |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 |
| ANIMAL ID | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 3 | 3 |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 8 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Inflammation | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Peribronchial, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Perivascular, Inflammation | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Goblet Cell, Hyperplasia | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation | | | | | | | | | | 3 | | | | 2 | | | | | 3 | 2.3 |
| Nasolacrim Dct, Inflammation | 2 | | | | | | 2 | 1 | | | 1 | 1 | 1 | | 2 | 2 | 2 | 2 | 26 | 1.8 |
| Olfactory Epi, Hyaline Droplet | | | | 2 | | | | | | 2 | | 1 | | 3 | | | | | 5 | 2.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Special Senses System | | | | | | | | | | | | | | | | | | | | |
| Ear | | | | | | | | | | | | | | | | | | | + | 2 |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | 2 | | | | | | 3 | 2.0 |
| Cataract | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation | | | | | | | | | | 4 | | | | | | | | | 1 | 4.0 |
| Phthisis Bulbi | | | | | | | | | | | | | | | | | | | 1 | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | 2 | | | | | | | | | | | | | | 2 | 5 | 1.6 |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Inflammation | | | | 2 | | 1 | | | | | | 2 | 1 | 1 | | | 2 | | 12 | 1.6 |

* ..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

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

CD Rat Female
F3/10PPBTO CTL

| DAY ON TEST | 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 |
| | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| | 0 | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 |
| ANIMAL ID | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 2 | 3 |
| | 4 | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | 1 |
| Urinary System | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | X | X | X | X | X | | | | | | | | | X | | X | X | | 17 |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Mineralization | | | | 1 | 1 | 2 | 3 | | 2 | | 2 | | | 2 | | 2 | | | 21 1.9 |
| Nephropathy | 1 | 1 | | | | | | 2 | 2 | 1 | | | | 1 | 2 | 2 | | | 19 1.3 |
| Renal Tubule, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Urinary Bladder | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

* ..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

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Date Report Requested: 10/23/2014

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F3/50PPBTO CTL | 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 |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 3 | 3 | 3 | 4 |
| | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 0 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | 2 | 2 | | | | | | | 2 | | | | | | | |
| Basophilic Focus | | | | | | | X | | | | | | | | | | | | | | | X | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Cyst Multilocular | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | X | | | | | X | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | 2 | | | | 3 | | | 2 | | | | | | | | | | | | | |
| Hepatocyte, Periportal, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Left Lat Lobe, Developmental Malformation | | | | | | | | | | | X | | | | | | | | | | | | X | | | | | | | |
| Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

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Lab: NCTR

| CD Rat Female
F3/50PPBTO CTL | 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 | |
| | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 9 | 9 | 9 | 9 | 9 |
| 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 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | |
| | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 3 | 3 | |
| | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 8 | 0 | 1 | 3 | 0 | 4 | 5 | 6 | 6 | 3 | 8 | 9 | |
| Periportal, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| Vacuolization Cytoplasmic | | | | 2 | | | | | 2 | | | | | | | | | | | | 3 | | | | | | 3 | | |
| Mesentery | | + | | | | + | | | | | + | | | | | | | | | + | | | | | | | | | |
| Fat, Necrosis | | | | | | 2 | | | | | | 3 | | | | | | | | 3 | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | + | | | | | | | | | | | | | | + | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinar Cell, Degeneration | | | | 2 | | | | | 1 | | | 2 | 2 | | | | | | 2 | | | 2 | | | | 2 | 1 | 1 | 1 |
| Inflammation, Chronic | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Edema | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | | | | | | | | | 1 | | | | | | | | | 1 | 1 | | | | | | | 1 | 1 | 1 |
| Endocrine 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: 99920-93
 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: 11:58:24
 First Dose M/F: NA / NA
 Lab: NCTR

| DAY ON TEST | 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 |
| CD Rat Female | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| F3/50PPBTO CTL | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 2 | 3 | 3 |
| | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 0 | 4 | 5 | 6 | 7 | 3 | 8 |

| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | 2 | | | | | | 2 | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 3 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 3 | 2 | | | 2 | | 2 | | | 2 | | | | | | | | | | | | | | | | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 2 | 3 | 3 | 1 | 3 | 2 | 4 | 4 | 4 | 1 | | 3 | 2 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 2 | 4 | 4 | 3 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Atypical, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99920-93
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: 11:58:24
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 | |
| | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | |
| | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 9 | 9 | 9 | 9 | 9 | |
| 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 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 2 | 3 | 3 | |
| | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 0 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Pigmentation, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Inflammation | 2 | 2 | | | 2 | | | | | 2 | | 2 | 1 | | | 2 | 2 | | | | 1 | | | | | | 2 | | | |
| Mucocyte, Hyperplasia | | | | 1 | 4 | 2 | | 1 | | 3 | 2 | 3 | 3 | | 2 | | 2 | 3 | 1 | | 1 | 3 | | 2 | 3 | 2 | 1 | 3 | | 3 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | 2 | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | 2 | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Hyperplasia, Lymphoid | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Infiltration Cellular, Plasma Cell | | | | 2 | 2 | 2 | 3 | 2 | | 2 | | | 3 | | 2 | | 2 | 3 | 2 | 2 | | 3 | 2 | | 3 | 3 | 3 | 3 | 3 | 2 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99920-93
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: 11:58:25
First Dose M/F: NA / NA
Lab: NCTR

| CD Rat Female
F3/50PPBTO CTL | 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 | |
|------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| | ANIMAL ID | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 9 | 9 | 9 | 9 | 9 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lactation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99920-93
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 Lab: NCTR

| CD Rat Female
F3/50PPBTO CTL | 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 | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | | | |
| | | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | |
| | | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 9 | 9 | | |
| Olfactory Epi, Hyaline Droplet | | | | | | | | | | | 2 | | | | | | | | | 2 | 2 | 3 | | | | | | | 2 | 2 | 1 | | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Respirat Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Retina, Degeneration | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Phthisis Bulbi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | | 1 | 1 | 1 | 1 | 1 | | 2 |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | X | | X | | | X | | | | | | | | | | | | | | | | | | | X | | | | | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..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: 99920-93
 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: 11:58:26
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPBTO CTL

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

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | 2 | | | | | | | | | | | 2 | | | | | | 5 | 2.0 | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | 2 | | |
| Bile Duct, Hyperplasia | 1 | | | | | | | 2 | | | | | | | | 1 | 2 | 1 | | 6 | 1.5 | |
| Cyst Multilocular | | | | | | | | | | | | | | | | | | | | 1 | | |
| Degeneration, Cystic | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | 2 | | |
| Hematopoietic Cell Proliferation | | | | | | 1 | | | | | | | | | | | | | | 4 | 2.0 | |
| Hepatocyte, Periportal, Hypertrophy | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Chronic Active | | | | | | | | | | 2 | | | | | 1 | | 1 | | | 4 | 1.3 | |
| Left Lat Lobe, Developmental Malformation | | | | | | | | | | | | | | | | | | | | 2 | | |
| Necrosis | | | | | | | | | | | | | 1 | | | | | | | 5 | 1.8 | |

* ..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:

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Experiment Number: 99920-93
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
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 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 11:58:26
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

| DAY ON TEST | 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 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 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 | 1 | 1 |
| | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 2 |
| | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 9 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Periportal, Inflammation, Chronic | 1 | 2 | | | | | | 1 | | | | | | | | | | | 5 | 1.6 |
| Vacuolization Cytoplasmic | | 3 | | 3 | | | 1 | | | 3 | 2 | 1 | | | 3 | | 2 | | 12 | 2.3 |
| Mesentery | | | | | | | | | | | | | | | | | | | 4 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | 3 | 2.7 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | 2 | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accessory Spleen | | | | | | | | | | X | | | | | | | | | 1 | |
| Acinar Cell, Degeneration | | 2 | 2 | 2 | | | 1 | | 2 | 1 | | 1 | | 3 | 2 | | 1 | 2 | 21 | 1.7 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | 3 | | | | | | | | | | | | | | | 1 | 3.0 |
| Ulcer | | | | 3 | | | | | | | | | | | | | | | 2 | 2.5 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Edema | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cardiomyopathy | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | | | 1 | 1 | | 1 | | 1 | 2 | 21 | 1.1 |
| Endocrine 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
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Experiment Number: 99920-93
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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: 11:58:27
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 0 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 3 |
| Adrenal Cortex | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Accessory Adrenal Cortical Nodule | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Angiectasis | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Degeneration, Cystic | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 2 |
| Hematopoietic Cell Proliferation | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 0 | 1 | 9 | 6 |
| Hypertrophy | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | |
| Follicular Cel, Hyperplasia | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | |

***TOTALS**

* ..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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Experiment Number: 99920-93
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 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 11:58:27
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

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

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Tissue NOS | + | | | | | | | | | | | | | | | | | 1 | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Atrophy | | | 2 | | 2 | 3 | | | | | | | | | | | | | 6 | 2.2 | |
| Duct, Dilatation | | | | | 2 | 2 | | 2 | | | 3 | | | 2 | | 2 | | 3 | 9 | 2.3 | |
| Hyperplasia | | | | | | | | | | | | | | | | 1 | | | 3 | 2.0 | |
| Inflammation | 1 | | 1 | | | | 1 | 2 | | 4 | 2 | | | 2 | 1 | | | 2 | 20 | 2.0 | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | 1 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | 4 | 3 | 4 | 4 | 4 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 4 | 2 | 2 | 49 | 2.9 |
| Cyst | X | | X | | | X | X | X | X | | X | | | | | X | X | | 13 | | |
| Hyperplasia, Sertoliform | 3 | | 2 | 4 | 1 | 2 | 2 | 1 | | 2 | 2 | 1 | | 1 | 1 | 2 | | 2 | 27 | 1.7 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | | | 2 | | | 2 | | | | | | | | | | | | | 2 | 2.0 | |
| Dilatation | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Endometrium, Degeneration | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Endometrium, Hyperplasia | | | | | | | | | | | 2 | | | | | | | 2 | 5 | 2.2 | |
| Endometrium, Hyperplasia, Cystic | | | | 2 | | 4 | 2 | | | | | | 4 | | | 2 | 3 | | 18 | 2.4 | |
| Hyperplasia, Atypical, Focal | 1 | | 3 | | 1 | 2 | 1 | 1 | | | | 1 | | | 1 | | | | 21 | 1.5 | |
| Inflammation | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Metaplasia, Squamous | 1 | | 1 | | | 1 | | | | | | | | | | 2 | | | 11 | 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
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 First Dose M/F: NA / NA
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**CD Rat Female
 F3/50PPBTO CTL**

| DAY ON TEST | 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 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 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 | 1 | 1 |
| | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 2 | 3 |
| | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 9 | 6 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|-----|
| Pigmentation, Focal | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | 3 | 2 | 3.0 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | 3 | 12 | 1.8 | | |
| Mucocyte, Hyperplasia | | | 2 | 3 | | | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 3 | | | 3 | 3 | 35 | 2.5 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | + | 5 | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 2 | 4 | 3.0 | | |
| Lumbar, Hemorrhage | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 3 | 2 | 2.3 | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 3 | 2 | 2.4 | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 3 | 3 | 2.3 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 2 | 2 | 2.0 | | |
| Infiltration Cellular, Plasma Cell | 3 | 2 | 2 | 3 | 3 | 3 | 3 | | | 3 | 3 | 2 | 3 | | | 3 | 3 | 3 | 3 | 2 | 2 | 37 | 2.6 |
| Lymph Node, Mesenteric | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 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: 99920-93
 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: 11:58:27
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

| DAY ON TEST | 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 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 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 | 1 | 1 |
| | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 2 | 3 |
| | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 6 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 2 | 2.5 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hematopoietic Cell Proliferation | | | | 2 | | 2 | | | | | | | 1 | | | | | | 16 | 1.9 | |
| Pigmentation | 3 | | 2 | 2 | | 1 | 1 | 1 | | | | 1 | | 2 | | | 3 | 2 | 2 | 29 | 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cyst | X | | | | | | | X | | X | | X | | X | | X | X | | | 20 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolus, Hyperplasia | 3 | 2 | 2 | 2 | 3 | 1 | 3 | 4 | 1 | 2 | 3 | 2 | 1 | 3 | | 2 | 2 | 2 | 2 | 39 | 2.2 |
| Atypical Focus | 1 | | 3 | | 2 | 1 | 2 | 3 | | | | | | 1 | | | 2 | 2 | | 18 | 1.9 |
| Duct, Dilatation | | | | 3 | 3 | | | | | | | | | | | | | | | 3 | 2.7 |
| Galactocele | X | X | | | | | | | | | | | | | | | X | | | 5 | |
| Lactation | | | | 2 | 2 | | 1 | | | | | | | 1 | | | 2 | 2 | | 20 | 1.9 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation | | | | 4 | 4 | 4 | 4 | | | 4 | | | | 4 | | 4 | | | | 12 | 3.8 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | 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

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Experiment Number: 99920-93
 Test Type: SPECIAL STUDY
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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: 11:58:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

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

Nervous System

| | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Compression | 3 | | 3 | 3 | 2 | | 2 | | | | | 2 | | | | | | | 20 | 2.6 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hydrocephalus | | | | 2 | | | | | | | | | | | | | | | 3 | 2.0 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | 1 | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | 1 | |
| Necrosis | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

Respiratory System

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Infiltration Cellular, Histiocyte | | | | 1 | | | | | | | | | | | | | | 2 | 7 | 1.1 |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Goblet Cell, Hyperplasia | | | | 2 | | | | | | | | | | | | | | | 3 | 2.0 |
| Inflammation | | | | | | | | | | | | | | 2 | | | 1 | | 6 | 2.0 |
| Nasolacrim Dct, Inflammation | | | 2 | 1 | 2 | | | 2 | | 2 | | | | 2 | 2 | 1 | 1 | 2 | 26 | 1.7 |
| Nasolacrim Dct, Keratin Cyst | | | | | | | | | | | | | | | | | | | 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:
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Experiment Number: 99920-93
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 Species/Strain: Rat/CD

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 CAS Number: 57-63-6

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 Time Report Requested: 11:58:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPBTO CTL**

| DAY ON TEST | 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 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 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 | 1 | 1 |
| | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 2 | 3 |
| | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 6 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Olfactory Epi, Hyaline Droplet | | | | 1 | | | 3 | | | | | | | | | | | | 9 | 2.0 | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Respirat Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | 3 | 1.0 | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Bilateral, Retina, Degeneration | | | | 3 | | | | | | | | | | | | | | | 2 | 3.0 | |
| Cataract | | | | | | | | | | | | | | | | | | | 1 | | |
| Phthisis Bulbi | | | | | | | | | | | | | | | | | | | 1 | | |
| Retina, Degeneration | | | | | | | 1 | | | | | | | | | | | | 3 | 1.3 | |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | | | | | 1 | | 4 | 1.0 | |
| Inflammation | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | 1 | 14 | 1.1 | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | | | | | | | X | | | | | X | X | | | | 7 | | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Inflammation | | | | | | 3 | | | | | | | | | | | | | 2 | 2.5 | |
| Mineralization | | 2 | | | | | 1 | | 1 | 1 | | | | 3 | | 1 | | 1 | 2 | 20 | 1.5 |
| Nephropathy | | | | 1 | 1 | 1 | | | 2 | 1 | 1 | 1 | 1 | | | | | 2 | 1 | 22 | 1.2 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* ..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:

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Experiment Number: 99920-93

Test Type: SPECIAL STUDY

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3/50PPBTO CTL

| | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | 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 |
| | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 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 | 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 | 1 | 1 |
| | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 2 | 3 |
| | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 9 | 6 |

*TOTALS

Hemorrhage
Inflammation

1 2.0
1 2.0

** END OF REPORT **

* ..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:

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2) Mild 4) Marked