

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:08

First Dose M/F: NA / NA

Lab: NCTR

C Number: MG96005

Lock Date: Not Entered.

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

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CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:08

First Dose M/F: NA / NA

Lab: NCTR

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

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:10

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:10

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 0PPM

CD Rat Male F1 OPPM	DAY ON TEST																										
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salivary Glands		+	+	A	+	A	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach		+	+	A	+	A	+	A	A	A	A	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	
Cyst, Squamous		0	0	0	0	1	1	1	1	1	1	1	2	3	3	3	4	4	4	4	4	4	5	5	5	5	
Hyperplasia		4	5	6	7	0	0	1	2	7	8	9	1	2	5	8	0	3	5	6	7	7	1	1	6	7	
Inflammation, Chronic Active		1	2	5	5	0	3	9	3	9	6	1	2	2	9	5	7	8	0	0	1	7	8	3	9	0	
Stomach, Glandular		+	+	A	+	A	+	A	A	A	A	+	A	+	+	+	A	A	+	+	+	+	+	+	+	+	
Cardiovascular System		+	+	A	+	A	+	A	A	A	A	+	A	+	+	+	A	A	+	+	+	+	+	+	+	+	
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	
Autolysis																			4								
Cardiomyopathy																			1	1							
Epicardium, Hyperplasia																			1		1	1					1
Metaplasia, Osseous																				1							
Mineralization																											1
Endocrine System		+	+	A	+	A	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	
Adrenal Cortex		+	+	A	+	A	+	+	+	+	+	A	+	A	+	+	+	A	+	+	+	+	+	+	+	+	
Accessory Adrenal Cortical Nodule																							X				
Angiectasis																											2
Degeneration, Cystic																											4
Hyperplasia																											2
Hypertrophy																											1
Vacuolization Cytoplasmic		2																	1	2							2
		2																	2		2						2

* ..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:

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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:11

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 OPPM

General Body System

NONE

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:12

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:12

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:13

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:13

First Dose M/F: NA / NA

Lab: NCTR

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

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1-4 ..Lesion qualified as:

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A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

| ..Insufficient tissue

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2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:14

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 0PPM

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

+ .. Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:15

First Dose M/F: NA / NA

Lab: NCTR

* ..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: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:15

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST	0 0																																								
		7 7																																								
		3 3 4 5																																								
		9 9 3 3 2 2 4 4 3 3 4 4 4 5 5 5 9 8 9 9 9 9 3																																								
		0 0																																								
ANIMAL ID																																										
0 0																																										
0 0																																										
6 6																																										
0 0 3 3 5 5 8 8 9 9 1 1 4 7 7 7 9 9 0 5 5 0 0 3																																										
4 5 8 9 6 7 3 4 3 9 3 4 2 5 8 9 6 3 4 5 5 2 5 0																																										

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	53
Hyperkeratosis																					4 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Hyperplasia, Lymphoid																					2 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Hyperplasia, Lymphoid																					1 2.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	37
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Serosa, Polyarteritis																					1 3.0
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Hyperplasia, Lymphoid																					1 2.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Hyperplasia, Lymphoid																					2 2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Angiectasis																					2 1.5
Autolysis																					3 2.7
Basophilic Focus		X													X						3
Bile Duct, Hyperplasia	1				1			1	2	2	1					1	2	1	2		17 1.3
Biliar Tract, Fibrosis	1							1	1	2	1										7 1.3
Capsule, Fibrosis								2													1 2.0
Clear Cell Focus																X					1

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1-4 ..Lesion qualified as:

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:15

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																					*TOTALS	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
Degeneration, Cystic																							2 1.5
Developmental Malformation																							1
Eosinophilic Focus																							1
Eosinophilic Focus, Multiple																							3
Hematopoietic Cell Proliferation																							1 1.0
Hemorrhage	2															X	X						1 2.0
Hepatodiaphragmatic Nodule																	X						2
Infiltration Cellular, Lymphocyte																		2					8 1.1
Inflammation, Chronic Active	1																	1	1				9 1.1
Mineralization																							1 1.0
Necrosis																		1					3 1.3
Tension Lipidosis																							2 3.0
Vacuolization Cytoplasmic																			1				5 1.6
Mesentery																							1
Fat, Necrosis																							1 3.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration	2	2	4		2	4	2		3	3	1	2	2	3	2	2	2	4	1	1	1		33 2.1
Autolysis																							3 2.7
Basophilic Focus																	X						1
Infiltration Cellular, Lymphocyte																							1 1.0
Inflammation, Chronic Active	2																1						3 1.3
Inflammation, Granulomatous																							1 2.0
Pigmentation																							2 1.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:16

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																					*TOTALS	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Stomach, Forestomach	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Cyst, Squamous																						1	
Hyperplasia																						1	
Inflammation, Chronic Active																						2.0	
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Cardiovascular System																							
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	53	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Autolysis																						1	4.0
Cardiomyopathy																						13	1.2
Epicardium, Hyperplasia																						1	1.0
Metaplasia, Osseous																						1	1.0
Mineralization																						1	1.0
Endocrine System																							
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Accessory Adrenal Cortical Nodule																X							2
Angiectasis																						1	2.0
Degeneration, Cystic																3							3
Hyperplasia																						2	2.0
Hypertrophy																						2	1.0
Vacuolization Cytoplasmic																	1	2	2	1	1	14	1.6

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X ..Lesion present

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Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:16

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																					*TOTALS	
		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	*TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Bilateral, Hyperplasia																						2 2.5	
Cyst																					X	1	
Hyperplasia																						6 1.8	
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia		1	1	1	1	1	2	2	1		1	1										23 1.4	
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	47	
Bilateral, Hyperplasia																						2 2.0	
Hyperplasia																						3 1.7	
Pituitary Gland		+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	49	
Pars Distalis, Cyst																						3	
Pars Distalis, Cyst, Multiple											X											1	
Pars Distalis, Hyperplasia											2	2										13 1.9	
Pars Intermed, Cyst, Multiple																						1	
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																						1 2.0	
C Cell, Hyperplasia		1			1	1	2	2														7 1.3	
Cyst, Squamous																						7	
Infiltration Cellular, Lymphocyte										1												2 1.0	
Inflammation, Chronic																						1 2.0	
General Body System																							
NONE																							

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:17

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

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

*TOTALS

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Atrophy																					4
Degeneration																					2
Developmental Malformation																					3.5
Hyperplasia																					1
Ductus Deferens																					2.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Atrophy																					4
Autolysis																					1
Degeneration																					2.0
Hypospermia																					4
Infiltration Cellular, Lymphocyte																					3.7
Preputial Gland	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy									2												1
Autolysis																					2.0
Duct, Dilatation																					3.0
Infiltration Cellular, Lymphocyte																					4
Inflammation, Suppurative																					3.8
Parenchym Cell, Degeneration																					1.5
Prostate																					21
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
																					8

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:17

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																					*TOTALS		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Degeneration																							2 1.5	
Infiltration Cellular, Lymphocyte																							2 1.0	
Inflammation, Suppurative		2	2	1		2	2	2			1	2	3	2	3		1	2		2		1	3	31 2.0
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Degeneration		1		1		2						2				1		2		2			13 1.9	
Hyperplasia						2					2						2	2					7 2.1	
Infiltration Cellular, Lymphocyte			1				1		1		1												7 1.1	
Inflammation, Suppurative								4				1											3 6 2.2	
Rete Testes	+	+	+	+	+	+	+	+	+	+	I	I	+	+	+	+	+	+	+	+	A	+	44	
Dilatation														4									1 3 2.3	
Fibrosis																		3					1 3.0	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Atrophy																							4 3 3.3	
Autolysis																							1 4.0	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Autolysis																							1 4.0	
Interstit Cell, Hyperplasia																							1 3.0	
Polyarteritis		2				2																	2 2.0	
Seminif Tub, Degeneration	1	1	1	1	1	1	1	2	1	4		4	2	1	4		4	4					31 2.3	
Hematopoietic System																								
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																							1 4.0	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:18

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																						
		0	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	7	7
		3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
		9	9	3	3	2	2	4	4	3	3	4	4	4	5	5	5	9	8	9	9	9	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	8	8	8	8	9	9
		0	0	3	3	5	5	8	8	9	9	1	1	4	7	7	7	9	0	5	5	0	0
		4	5	8	9	6	7	3	4	3	9	3	4	2	5	8	9	6	3	4	5	5	2
		*TOTALS																					
Hypocellularity																							2 2.0
Myeloid Cell, Hyperplasia																							3 2.3
Lymph Node	+																						15
Adventitia, Pancreatic, Polyarteritis		3																					1 3.0
Adventitia, Renal, Hemorrhage																							1 4.0
Deep Cervical, Autolysis																							1 4.0
Lumbar, Autolysis																							1 4.0
Lumbar, Degeneration, Cystic																							6 3.7
Lumbar, Hemorrhage																							1 3.0
Lumbar, Hyperplasia, Lymphoid																							3 3.7
Lumbar, Infiltration Cellular, Plasma Cell																							7 3.9
Mediastinal, Infiltration Cellular, Plasma Cell																							1 3.0
Pancreatic, Hyperplasia, Lymphoid																							1 2.0
Pancreatic, Inflammation, Granulomatous	2																						1 2.0
Renal, Autolysis																							1 4.0
Renal, Pigmentation																							1 2.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Autolysis																							3 3.3
Degeneration, Cystic			4																				7 3.3
Hyperplasia, Lymphoid	2	1		3																			23 2.1
Infiltration Cellular, Plasma Cell	1	4	3		1																		30 2.5
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Degeneration, Cystic						4																	3 4.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:18

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																					*TOTALS	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
Hyperplasia, Lymphoid		1	1																				14 1.9
Infiltration Cellular, Mast Cell																							2 2.0
Infiltration Cellular, Plasma Cell					2	2																	3 2.0
Inflammation, Granulomatous																							14 1.6
Pigmentation																							1 1.0
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Accessory Spleen																							1
Autolysis																							3 2.7
Capsule, Fibrosis																							1 2.0
Hematopoietic Cell Proliferation																							8 2.0
Hyperplasia, Lymphoid					1																		2 1.5
Pigmentation		2	2		4	2																	30 2.2
Thymus		+	+	+	+	M	+	+	+	+	+	+	M	+	M	+	+	M	+	M	+	+	42
Atrophy		4	4	4	4		4	4	4	4	4	4		4	4	4	4	4	4	4	4	4	36 3.8
Hyperplasia, Lymphoid																							4 1 4.0
Integumentary System																							
Mammary Gland		+	+	I	+	+	+	+	+	+	+	+	+	+	+	I	+	+	I	+	+	+	41
Alveolus, Hyperplasia																							3 1.7
Autolysis																							1 3.0
Degeneration		3	2				3	1	2	1													21 2.6
Duct, Dilatation																							1 4.0
Lactation																							3 2.0

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

+ ..Tissue examined microscopically

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X ..Lesion present

A ..Autolysis precludes evaluation

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2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:19

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST	0 0																					
		7 7	3 3 4 5	9 9 3 3 2 2 4 4 3 3 4 4 4 5 5 5 5 9 8 9 9 9 9 3	*TOTALS																		
ANIMAL ID	0 0	0 0	6 6 6 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 8 8 8	0 0 3 3 5 5 8 8 9 9 1 1 4 7 7 7 9 0 5 5 0 0 3	4 5 8 9 6 7 3 4 3 9 3 4 2 5 8 9 6 3 4 5 5 2 5 0	*TOTALS																	
	I +	I +	I +	I +	I +	51																	
Skin																							
Abscess																							1 4.0
Autolysis																							1 3.0
Cyst Epithelial Inclusion								X															2
Epidermis, Hyperplasia																							5 2.2
Epidermis, Ulcer																							1 4.0
Fibrosis																							1 3.0
Hyperkeratosis																							5 2.0
Inflammation, Chronic																							2 1.5
Inflammation, Chronic Active							2																7 2.4
Inflammation, Pyogranulomat																							1 4.0
Inflammation, Suppurative																							22 3.9
Necrosis																							4 2.5
Musculoskeletal System																							
Bone, Femur	+ +	+ +	+ +	+ +	+ +	53																	
Hyperostosis																						1 2.0	
Nervous System																							
Brain, Brain Stem	+ +	+ +	+ +	+ +	+ +	50																	
Autolysis																						1 3.0	
Compression								2														1 7 1.7	
Hemorrhage																						1 1.0	
Brain, Cerebellum	+ +	+ +	+ +	+ +	+ +	50																	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:19

First Dose M/F: NA / NA

Lab: NCTR

* ..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

| ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:20

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPM	DAY ON TEST																							
		0	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	7	7	
		3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	
		9	9	3	3	2	2	4	4	3	3	4	4	4	5	5	5	9	8	9	9	9	3	
Hemorrhage																							1 3.0	
Hyperkeratosis																							1 2.0	
Inflammation, Chronic Active																							1 2.0	
Inflammation, Suppurative																							3 2.3	
Keratin Cyst																							1	
Squam Epithel, Hyperplasia																							2 2.5	
Squam Epithel, Metaplasia																							1 2.0	
Ulcer																							1 3.0	
Upper Molar, Inflammation, Chronic Active																							2 2.0	
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Special Senses System																								
Eye		+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	37	
Bilateral, Retina, Atrophy						1	2																	6 2.0
Inflammation, Chronic																								1 2.0
Retina, Atrophy																								5 1.6
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	39	
Degeneration																								1 1.0
Infiltration Cellular, Lymphocyte																								5 1.4
Lacrimal Gland																								10
Ectopic Harderian																								10
Urinary System																								
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:20

First Dose M/F: NA / NA

Lab: NCTR

* ..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

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:20

First Dose M/F: NA / NA

Lab: NCTR

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperkeratosis																									
Intestine Large, Cecum	+	+	A	+	A	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Polyarteritis																									
Intestine Large, Colon	A	+	+	+	A	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Rectum																									
Intestine Small, Duodenum	A	+	A	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum	+	+	+	+	A	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia, Lymphoid																									
Polyarteritis																									
Intestine Small, Jejunum	+	+	A	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Polyarteritis																									
Liver	+	+	+	+	A	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis																									
Basophilic Focus																									
Basophilic Focus, Multiple															X										
Bile Duct, Hyperplasia															1	1	1	1	1	1	2	1	3	1	1
Biliar Tract, Fibrosis															1	1	1	1	1	1	2	1	1	1	1
Capsule, Hemorrhage																									
Clear Cell Focus																									
Clear Cell Focus, Multiple															X										

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:21

First Dose M/F: NA / NA

Lab: NCTR

* ..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: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:22

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM

General Body System

NONE

Genital System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

| ..Insufficient tissue

A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:23

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM

CD Rat Male F1 5PPM	DAY ON TEST																										
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Developmental Malformation																	X		X								
Interstitialium, Inflammation, Chronic																											
Epididymis		+	+	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adventitia, Polyarteritis						2																					
Degeneration																											
Granuloma Sperm																											
Hypospermia																											
Infiltration Cellular, Lymphocyte																											
Penis																											
Concretion																											
Preputial Gland		A	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																											
Cyst																											
Duct, Dilatation																											
Infiltration Cellular, Lymphocyte																											
Inflammation, Suppurative		3	2		2	2	2	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Parenchym Cell, Degeneration		2			2	2	2		2																		
Prostate																											
Prostate, Dorsal Lobe		+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																											
Hyperplasia																											
Infiltration Cellular, Lymphocyte																											
Inflammation, Suppurative		1		4	2	2	2	2	2	3	2	2	2	2	2	2	2	2	1	2	2	3	1	3	1	3	

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

+ .. Tissue examined microscopically

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:23

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	DAY ON TEST																										
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interstitialium, Fibrosis																											
Polyarteritis																											
Prostate, Ventral Lobe		+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration											2	1	2					3	2						3		4
Hyperplasia																		2	2	1							
Infiltration Cellular, Lymphocyte																									2		1
Inflammation, Suppurative																											2
Interstitialium, Fibrosis																											
Rete Testes		+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrosis																											
Seminal Vesicle		A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy										2		3															
Autolysis																											
Dilatation																											
Hyperplasia																									2		
Inflammation, Suppurative																											
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminif Tub, Degeneration											2	1	4	3	1	1	1	2	1	1	1	1	1	1	1	1	1
Hematopoietic System																											
Bone Marrow		+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Autolysis																									4		
Erythroid Cell, Hyperplasia																									2		

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:24

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	DAY ON TEST																						
		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	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	
		9	0	2	5	2	0	1	3	8	3	3	3	3	3	3	3	3	3	3	4	4	
		6	3	9	3	5	2	7	4	8	7	7	8	8	8	9	8	8	9	9	2	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	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID																							
Hypocellularity																							
Myeloid Cell, Hyperplasia																							
Lymph Node		+	+			+			+		+		+		+	+	+	+	+	+	+	+	
Degeneration, Cystic																						4	
Infiltration Cellular, Plasma Cell																						2	
Lumbar, Degeneration, Cystic																						2	
Lumbar, Hyperplasia, Lymphoid																						2	
Lumbar, Infiltration Cellular, Plasma Cell																						4	
Mediastinal, Infiltration Cellular, Plasma Cell																						3	
Pancreatic, Hyperplasia, Lymphoid																						2	
Pancreatic, Inflammation, Granulomatous																						2	
Popliteal, Hyperplasia, Lymphoid																						3	
Popliteal, Infiltration Cellular, Plasma Cell																						4	
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Autolysis																						4	
Degeneration, Cystic																						4	
Hyperplasia, Lymphoid		2		3		2			2	2												2	
Infiltration Cellular, Plasma Cell		3				3	3		2													2	
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Autolysis		3																				2	
Degeneration, Cystic		4																				2	
Hyperplasia, Lymphoid																						2	
Infiltration Cellular, Plasma Cell																						2	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:24

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	DAY ON TEST																					
		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	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		9	0	2	5	2	0	1	3	8	3	3	3	3	3	3	3	3	3	3	4	4
		6	3	9	3	5	2	7	4	8	7	7	8	8	8	9	8	8	9	9	2	3
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inflammation, Granulomatous																						
Polyarteritis																						
Spleen																						
Hematopoietic Cell Proliferation																						
Hyperplasia, Lymphoid																						
Pigmentation																						
Thymus																						
Adventitia, Polyarteritis																						
Atrophy																						
Autolysis																						
Integumentary System																						
Mammary Gland																						
Alveolus, Hyperplasia																						
Degeneration																						
Duct, Dilatation																						
Galactocele																						
Hemorrhage																						
Inflammation, Granulomatous																						
Inflammation, Suppurative																						
Lactation																						
Skin																						
Abscess																						

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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Time Report Requested: 17:33:25

First Dose M/F: NA / NA

Lab: NCTR

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

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Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:25

First Dose M/F: NA / NA

Lab: NCTR

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Experiment Number: 99930-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: Endocrine disruptor (Genistein)
 CAS Number: 446-72-0

Date Report Requested: 10/22/2014
 Time Report Requested: 17:33:25
 First Dose M/F: NA / NA
 Lab: NCTR

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

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																			1 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Polyarteritis																			1 4.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperplasia, Lymphoid																			1 2.0
Polyarteritis																			1 4.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Polyarteritis																			1 4.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Angiectasis																	2	2	7 1.9
Basophilic Focus											X		X						5
Basophilic Focus, Multiple																	X		2
Bile Duct, Hyperplasia	1				1	1	1			1							2		13 1.2
Biliar Tract, Fibrosis										1				1	1	1			13 1.1
Capsule, Hemorrhage																			1 2.0
Clear Cell Focus															X				1
Clear Cell Focus, Multiple																			1

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:26

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	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	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	
		3	3	4	4	4	4	5	5	5	9	9	9	9	0	0	0	2	2	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	0	0	0	0	0	0	
		6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9
		9	9	1	1	3	3	3	6	6	7	9	9	4	5	8	8	8	9	2
		5	8	2	5	0	1	5	6	6	7	2	3	6	1	0	1	2	6	7
Degeneration, Cystic																				6 1.5
Developmental Malformation																				1
Eosinophilic Focus																				1
Eosinophilic Focus, Multiple			X	X	X															4
Hemorrhage																				2 2.5
Hepatodiaphragmatic Nodule																				1
Infiltration Cellular, Lymphocyte																				2 1.0
Inflammation, Chronic Active														1	1	1				7 1.0
Pigmentation																		1		1 1.0
Polyarteritis																				1 4.0
Tension Lipidosis																				1 1.0
Vacuolization Cytoplasmic							2													4 1.5
Mesentery							+												1	
Fat, Necrosis							4													1 4.0
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Acinar Cell, Degeneration							1													33 1.7
Acinar Cell, Hyperplasia							2													1 2.0
Pigmentation																				1 2.0
Polyarteritis																				1 3.0
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Hyperkeratosis																				1 1.0
Hyperplasia																				2 2.0

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1-4 ..Lesion qualified as:

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:26

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	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	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ulcer																				1 3.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Epithelium, Hyperplasia																				1 4.0
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Polyarteritis																				1 4.0
Thrombosis																				1 4.0
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cardiomyopathy	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	30	1.4
Polyarteritis																				1 4.0
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Accessory Adrenal Cortical Nodule	X																			2
Bilateral, Hyperplasia																				1 1.0
Cyst							X													1
Degeneration, Cystic																				1 2.0
Hyperplasia																				7 1.6
Hypertrophy	1						1													7 1.3
Vacuolization Cytoplasmic	2	2	1				1	1	1	1	2	2	1	1	1	1	1	1	25	1.3
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Bilateral, Hyperplasia																				2 1.0
Hyperplasia	2						3			1	2									8 2.1

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Species/Strain: Rat/CD

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:27

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	DAY ON TEST	Data Grid (0-9) Rows																		*TOTALS
		ANIMAL ID																		
Hyperplasia, Focal		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 1.0
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia																				1 23 1.3
Parathyroid Gland		+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Bilateral, Hyperplasia		2																		5 1.8
Hyperplasia																				6 1.7
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Pars Distalis, Cyst																				6
Pars Distalis, Cyst, Multiple																				2
Pars Distalis, Hyperplasia		1																		17 2.2
Pars Intermed, Cyst, Multiple																				1
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
C Cell, Hyperplasia																				1 1.0
Cyst, Squamous																				8
Polyarteritis																				1 3.0
General Body System																				
NONE																				
Genital System																				
Coagulating Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Adventitia, Polyarteritis																				1 3.0
Autolysis																				1 3.0
Concretion																				1

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Route: DOSED FEED

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Lab: NCTR

CD Rat Male F1 5PPM	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	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	
		3	3	4	4	4	4	5	5	5	9	9	9	9	0	0	2	2	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	0	0	0	0	0	0	
		6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9	
		9	9	1	1	3	3	3	6	6	7	9	9	4	5	8	8	9	9	
		5	8	2	5	0	1	5	6	7	2	3	6	1	0	1	2	6	7	
Developmental Malformation	X																			4
Interstitium, Inflammation, Chronic																				1 3.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Adventitia, Polyarteritis																				1 2.0
Degeneration	2																			4 2.0
Granuloma Sperm																				1 4.0
Hypospermia	4																			4 4.0
Infiltration Cellular, Lymphocyte																				5 1.0
Penis																				1
Concretion																				1
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Autolysis																				1 4.0
Cyst																				1
Duct, Dilatation																				4 3.3
Infiltration Cellular, Lymphocyte	1				1	2	1		1	2	2	1			1		2	1	1	21 1.3
Inflammation, Suppurative									1						4	3				16 2.6
Parenchym Cell, Degeneration	1	1			1				1	1		3	2				1	1		20 1.7
Prostate																				9
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																				1 3.0
Hyperplasia		2																		1 2.0
Infiltration Cellular, Lymphocyte	2	1			1	2	1								1					4 1.3
Inflammation, Suppurative	1	1	1	1	2	1	1		1	2							2			31 1.9

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

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:27

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM	DAY ON TEST	Lesion Data																		*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	0	
Interstitium, Fibrosis																				1 4.0
Polyarteritis																				1 4.0
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Degeneration	2																			9 2.6
Hyperplasia																				4 1.5
Infiltration Cellular, Lymphocyte																				4 1.3
Inflammation, Suppurative																				7 2.0
Interstitium, Fibrosis																				1 3.0
Rete Testes	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Fibrosis																				1 3.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Atrophy																				4 2.0
Autolysis																				1 3.0
Dilatation																				2 2.5
Hyperplasia																				3 2.3
Inflammation, Suppurative																				1 2.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Seminif Tub, Degeneration	4																			26 1.8
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																				1 4.0
Erythroid Cell, Hyperplasia																				2 2.0

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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: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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		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	
Hypocellularity	2																			1 2.0
Myeloid Cell, Hyperplasia																				2 2.0
Lymph Node																				13
Degeneration, Cystic																				1 4.0
Infiltration Cellular, Plasma Cell																				1 2.0
Lumbar, Degeneration, Cystic																				4 3.3
Lumbar, Hyperplasia, Lymphoid																				3 2.3
Lumbar, Infiltration Cellular, Plasma Cell																				5 3.2
Mediastinal, Infiltration Cellular, Plasma Cell																				1 3.0
Pancreatic, Hyperplasia, Lymphoid																				3 2.3
Pancreatic, Inflammation, Granulomatous																				1 2.0
Popliteal, Hyperplasia, Lymphoid																				1 3.0
Popliteal, Infiltration Cellular, Plasma Cell																				1 4.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Autolysis																				1 4.0
Degeneration, Cystic								1												4 2.8
Hyperplasia, Lymphoid																				12 2.3
Infiltration Cellular, Plasma Cell	2	2	2	2										2	2	2	4			21 2.3
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Autolysis																				2 3.5
Degeneration, Cystic														4	4					4 4.0
Hyperplasia, Lymphoid	2													3	3		2			6 2.5
Infiltration Cellular, Plasma Cell														4	4					4 3.3

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F1 5PPM

	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	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	
		3	3	4	4	4	4	5	5	5	9	9	9	9	0	0	2	2	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	0	0	0	0	0	0	
		6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
		9	9	1	1	3	3	3	6	6	7	9	9	4	5	8	8	9	9	
		5	8	2	5	0	1	5	6	6	7	2	3	6	1	0	1	2	6	
		6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
		9	9	1	1	3	3	3	6	6	7	9	9	4	5	8	8	9	9	
		5	8	2	5	0	1	5	6	6	7	2	3	6	1	0	1	2	6	
Inflammation, Granulomatous		2	1	2	1													1		17 1.7
Polyarteritis																				1 4.0
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Hematopoietic Cell Proliferation																				12 2.2
Hyperplasia, Lymphoid																				1 4.0
Pigmentation		3	2	3	1	1	1	2	2	1		2	1	3		2	2			30 2.1
Thymus		+	+	+	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	44
Adventitia, Polyarteritis																				1 3.0
Atrophy		4	4	4	4	4	4	4	4	4		4	4	4	4	4	4	4		41 4.0
Autolysis																				1 4.0
Integumentary System																				
Mammary Gland		+	+	+	+	+	+	+	I	+	+	I	+	+	+	+	+	+	+	43
Alveolus, Hyperplasia																			1	2 1.5
Degeneration		4	3	3	2	1			4		3	1		4	3	2	4			24 2.8
Duct, Dilatation																				2 3.0
Galactocele																				1 4.0
Hemorrhage																				1 4.0
Inflammation, Granulomatous																				1 4.0
Inflammation, Suppurative																				1 2.0
Lactation																				1 2.0
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Abscess																				1 4.0

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CD Rat Male
F1 5PPM

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

*TOTALS

Cyst		X		1
Epidermis, Hyperplasia	3			2 3.0
Fibrosis				1 4.0
Hemorrhage				1 2.0
Hyperkeratosis	3			2 2.5
Inflammation, Chronic		1		1 1.0
Inflammation, Chronic Active	3	3	3	8 3.4
Inflammation, Suppurative	3	4	4	21 3.9
Necrosis				2 3.5

Musculoskeletal System

Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
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Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Compression																	3	2.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Hydrocephalus																	1	3.0
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Hydrocephalus																	1	3.0

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Alveolar Epith, Hyperplasia																	3	2.0

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		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	4	4	4	4	4	4	4	4	4	5	5	5	5		
		3	3	4	4	4	4	5	5	5	9	9	9	9	0	0	2	2	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	0	0	0	0	0	0		
		6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	9		
		9	9	1	1	3	3	3	6	6	7	9	9	4	5	8	8	9	9		
		5	8	2	5	0	1	5	6	6	7	2	3	6	1	0	1	2	6		
Artery, Mineralization																				1	6
Infiltration Cellular, Histiocyte		2	2	2	1															2	19
Infiltration Cellular, Histiocytic																					1
Inflammation, Chronic																					2.0
Metaplasia, Osseous																					1
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Inflammation, Chronic Active																					1
Inflammation, Suppurative																					1.0
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Special Senses System																					
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42	
Bilateral, Retina, Atrophy																					4
Retina, Atrophy																					2.0
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42	
Degeneration																					2
Infiltration Cellular, Lymphocyte																					1.0
Lacrimal Gland																					5
Ectopic Harderian																					1.4
Zymbal's Gland																					1
Urinary System																					
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Autolysis																					1
																					3.0

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CD Rat Male
F1 5PPM

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

Bacterium	1	4.0
Capsule, Fatty Change	X	1
Capsule, Fibrosis		1 2.0
Cortex, Cyst	X X X X X	26
Inflammation, Chronic		1 1.0
Inflammation, Suppurative		1 3.0
Nephropathy, Chronic	1 1 1 2 1 2 1 1 3 1 1 1 1 2 2	41 1.5
Pelvis, Hyperplasia		4 1.5
Pelvis, Mineralization		1 2.0
Urinary Bladder	+ + + + + + + + + + + + + + + + + +	48
Dilatation		1 4.0

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Alimentary System

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Lab: NCTR

CD Rat Male F1 100PPM	DAY ON TEST																						
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	3	4	4	4	4	
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	8	3	4	4	5	
		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	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	1	2	2	2	2	3	4	4	4	5	5	5	5	5	5	6	6	6	6	7	
		3	2	0	0	0	0	3	3	2	6	6	6	0	0	1	1	1	6	7	8	2	
		9	0	1	4	0	2	8	4	5	6	7	8	9	0	1	2	2	1	4	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	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0</td																				

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:31

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	3	4	4	5
Cardiomyopathy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metaplasia, Osseous		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Endocrine System		0	1	2	2	2	2	3	4	4	4	5	5	5	5	5	6	6	6	6	7
Adrenal Cortex		3	2	0	0	3	3	2	6	6	6	0	0	1	1	1	2	2	2	2	2
Angiectasis		9	0	1	4	0	2	8	4	5	6	7	8	9	0	1	2	4	0	9	6
Atrophy		4																			
Capsule, Fibrosis																					
Degeneration, Cystic																					
Hyperplasia																					
Hypertrophy																					
Infiltration Cellular, Lymphocyte																					
Pigmentation																					
Vacuolization Cytoplasmic																					
Adrenal Medulla		2	2			1	1	1	1	2	2	2	1	4	1	1	2	1	1	1	1
Bilateral, Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																					
Islets, Pancreatic																					
Hyperplasia																					
Parathyroid Gland																					
Bilateral, Hyperplasia																					
Hyperplasia																					
Pituitary Gland																					

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:31

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	DAY ON TEST																				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	3	4	4	5
		ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pars Distalis, Cyst		X																			
Pars Distalis, Cyst, Multiple																					X
Pars Distalis, Hyperplasia																					
Pars Intermed, Cyst																					
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C Cell, Hyperplasia																					
Cyst, Squamous																					
General Body System																					
Tissue NOS																+					
Genital System																					
Coagulating Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																					
Developmental Malformation		X																			X
Dilatation																					
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Degeneration																					2
Hypospermia																					4
Infiltration Cellular, Lymphocyte																					
Inflammation, Chronic Active																					
Polyarteritis																					2
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+
Abscess																					4

* ..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
- 2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:32

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	3	4	4	4
Duct, Dilatation																					
Foreign Body																					
Infiltration Cellular, Lymphocyte																					
Inflammation, Suppurative																					
Necrosis																					
Parenchym Cell, Degeneration																					
Prostate																					
Prostate, Dorsal Lobe																					
Cyst																					
Degeneration																					
Infiltration Cellular, Lymphocyte																					
Inflammation, Suppurative																					
Prostate, Ventral Lobe																					
Degeneration																					
Hyperplasia																					
Infiltration Cellular, Lymphocyte																					
Inflammation, Suppurative																					
Rete Testes																					
Dilatation																					
Fibrosis																					
Spermatocoele																					
Seminal Vesicle																					
Atrophy																					
		3		3		3															

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:32

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	DAY ON TEST																					
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	3	4	4	5	4
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	1	2	2	2	2	3	4	4	4	5	5	5	5	5	5	6	6	6	6	7
		3	2	0	0	3	3	2	6	6	6	0	0	0	1	1	6	7	8	2	3	7
		9	0	1	4	0	2	8	4	5	6	7	8	9	0	1	2	1	4	0	9	6
Dilatation																						2
Fibrosis																						
Hyperplasia																						
Inflammation, Chronic																						
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminif Tub, Degeneration																						1
Hematopoietic System																						
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Erythroid Cell, Hyperplasia																						
Hypocellularity																						
Myeloid Cell, Hyperplasia																						
Lymph Node	+	+				+		+	+	+												+
Inguinal, Hyperplasia, Lymphoid																						
Inguinal, Infiltration Cellular, Plasma Cell																						
Lumbar, Degeneration, Cystic																						3
Lumbar, Hyperplasia, Lymphoid																						
Lumbar, Infiltration Cellular, Plasma Cell																						4
Mediastinal, Infiltration Cellular, Plasma Cell																						
Pancreatic, Hyperplasia, Lymphoid																						
Pancreatic, Infiltration Cellular, Plasma Cell																						
Popliteal, Hyperplasia, Lymphoid																						
Popliteal, Infiltration Cellular, Plasma Cell																						

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:33

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	DAY ON TEST																						
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	3	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	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	4	4	4	5	5	5	5	5	5	6	6	6	6	7	
		3	2	0	0	3	3	2	6	6	6	0	0	0	1	1	1	6	7	8	2	3	
		9	0	1	4	0	2	8	4	5	6	7	8	9	0	1	2	2	1	4	0	9	
Renal, Hyperplasia, Lymphoid																							
Renal, Infiltration Cellular, Plasma Cell																							
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																							
Hyperplasia, Lymphoid		3	2	3		2			3			2						2				2	2
Infiltration Cellular, Plasma Cell		2	3			3	2	3									2	1	2	3	1	2	3
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																							
Hemorrhage																						3	
Hyperplasia, Lymphoid		2	3			2											2	2	4		2		
Infiltration Cellular, Plasma Cell																			4				
Inflammation, Granulomatous					2			1			1	1	2		1	1	1	2	2		2	2	
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Depletion Lymphoid																							
Hematopoietic Cell Proliferation									3	2		2					2	2	2		2		
Hyperplasia, Lymphoid																			2				
Pigmentation		4	4	4		3		3								2	3	3	2	2	4	2	
Red Pulp, Hyperplasia																	2	2	1	3			
Thymus		+	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	+	I	
Atrophy		2	2	4	3	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	
Integumentary System																							
Mammary Gland		I	+	I	I	+	I	I	+	+	+	+	+	I	+	+	+	+	+	+	+	+	

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

+ ..Tissue examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:33

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	8	3	3	4	4	4	5	4
Alveolus, Hyperplasia																									
Degeneration																									
Duct, Dilatation		2																							
Galactocele																									
Lactation																									
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																									
Angiectasis																									
Cyst Epithelial Inclusion																									
Epidermis, Hyperplasia																									
Hemorrhage																									
Hyperkeratosis																									
Inflammation, Chronic																									
Inflammation, Chronic Active																									
Inflammation, Suppurative																									
Necrosis																									
Musculoskeletal System																									
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Necrosis																									
Nervous System																									
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression																									
		2																							
			2																						
				3																					

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X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:33

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	4	4	4	4
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	8	3	4	4
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hydrocephalus																					
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hydrocephalus																					
Respiratory System																					
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolar Epith, Hyperplasia																					
Artery, Mineralization																					
Hemorrhage																					
Infiltration Cellular, Histiocyte		2																			
Infiltration Cellular, Lymphocyte																					
Metaplasia, Osseous																					
Pleura, Fibrosis																					
Pleura, Hyperplasia																					
Pleura, Inflammation, Chronic																					
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																					
Inflammation, Chronic Active																					
Inflammation, Suppurative																					
Trachea		2																			
Special Senses System																					
Eye																					

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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	
		2	4	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		1	7	8	9	1	1	7	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
		3	4	9	3	7	9	0	5	5	7	8	8	8	8	9	8	8	3	4	4	4	5	
CD Rat Male F1 100PPM	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	1	2	2	2	2	3	4	4	4	5	5	5	5	5	5	5	6	6	6	6	7	
		3	2	0	0	3	3	2	6	6	6	0	0	0	1	1	1	6	7	8	2	3	7	
		9	0	1	4	0	2	8	4	5	6	7	8	9	0	1	2	1	4	0	9	0	6	
Bilateral, Retina, Atrophy																								
Retina, Atrophy																								
Harderian Gland																								
Degeneration																								
Infiltration Cellular, Lymphocyte																								
Lacrimal Gland																								
Ectopic Harderian																								
Urinary System																								
Kidney																								
Capsule, Fatty Change																								
Cortex, Cyst																								
Fatty Change																								
Hyperplasia, Tubular																								
Infiltration Cellular, Lymphocyte																								
Mineralization																								
Nephropathy, Chronic																								
Pelvis, Hyperplasia																								
Pelvis, Mineralization																								
Renal Tubule, Inflammation, Suppurative																								
Urethra																								
Urinary Bladder																								
Dilatation																								

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM

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

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia, Lymphoid																		1 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia, Lymphoid																		1 2.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Autolysis																		1 3.0
Hyperplasia, Lymphoid																		1 2.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Autolysis																		1 3.0
Hyperplasia, Lymphoid																		1 2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																		3 1.7
Basophilic Focus																		4
Bile Duct, Hyperplasia	2	1																1 1.1
Biliar Tract, Fibrosis	1																	7 1.0
Capsule, Fibrosis																		1 2.0
Capsule, Inflammation, Chronic																		1 1.0
Cholangiofibrosis																		1 3.0

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

+ ..Tissue examined microscopically

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- 1) Minimal 3) Moderate
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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM

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

Cyst	X																		2	2	1.5
Degeneration, Cystic	X																		2	2	
Eosinophilic Focus	X																		1	4.0	
Granuloma, Multiple	X																		2	1.0	
Infiltration Cellular, Lymphocyte	X																		1	6	1.2
Inflammation, Chronic Active	X																		3	3	1.7
Necrosis	X																		6	6	1.8
Vacuolization Cytoplasmic	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	50	34	2.1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	4.0
Acinar Cell, Degeneration	2	2	1	2	1	2	2	1	4	2	1	4	2	1	4	3	1	2	50	1	2.0
Acinar Cell, Hyperplasia	X																		1	1	
Basophilic Focus	X																		2	2	
Infiltration Cellular, Lymphocyte	X																		1	1	1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	2.0
Mineralization	X																		1	1	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	2.0
Epithelium, Hyperplasia	X																		2	1	
Keratin Cyst	X																		1	1	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Cardiovascular System	X																		50	50	
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

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Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	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	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4	
		7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	7	2
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9
		6	6	7	8	9	9	2	4	4	4	4	5	7	7	8	8	8	0	2
		2	3	6	4	4	5	3	2	3	4	5	2	7	8	4	5	6	0	9
Cardiomyopathy		1	1	1	1	1	1	3	1	1	1	1	1	2	2	1	2	1	29	1.4
Metaplasia, Osseous								1											5	1.0
Endocrine System																				
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis																			1	2.0
Atrophy					3														4	3.7
Capsule, Fibrosis																			2	1.20
Degeneration, Cystic																			1	1.5
Hyperplasia							1												2	1.5
Hypertrophy		2					2												8	1.9
Infiltration Cellular, Lymphocyte		2																	1	2.0
Pigmentation		2																	1	2.0
Vacuolization Cytoplasmic		2	1	1	2	2	1	2	1	1	1	1	1	2	2	1	2	1	36	1.4
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Bilateral, Hyperplasia													1						2	1.0
Hyperplasia								2	1	1					3	1			11	1.5
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia			1	1	1				1	3					2	1			18	1.4
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Bilateral, Hyperplasia																		2	2	2.0
Hyperplasia		1	3		2										2				8	1.5
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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CD Rat Male
F1 100PPM

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

*TOTALS

Pars Distalis, Cyst	X	6
Pars Distalis, Cyst, Multiple		2
Pars Distalis, Hyperplasia	2	11
Pars Intermed, Cyst	1	1.7
Thyroid Gland	+	50
C Cell, Hyperplasia		1
Cyst, Squamous	X X X	1.0
		4

General Body System

Tissue NOS

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																		2 3.0
Developmental Malformation							X											4
Dilatation							3											1 3.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration							3	2	2									5 2.4
Hypospermia							4	4	2									6 3.7
Infiltration Cellular, Lymphocyte								1										1 1.0
Inflammation, Chronic Active								2										1 2.0
Polyarteritis																		1 2.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Abscess																		1 4.0

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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CAS Number: 446-72-0

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CD Rat Male F1 100PPM	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	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4		
		7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	7		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9		
		6	6	7	8	9	9	2	4	4	4	4	5	7	7	8	8	8	0		
		2	3	6	4	4	5	3	2	3	4	5	2	7	8	4	5	6	0		
Duct, Dilatation		4			4			4											7	4.0	
Foreign Body																				1	
Infiltration Cellular, Lymphocyte	1	1	1																	21	1.4
Inflammation, Suppurative		4				1	2	4	4											21	3.1
Necrosis																				1	3.0
Parenchym Cell, Degeneration						2	1	4	4	1	1	1								27	1.9
Prostate																				2	
Prostate, Dorsal Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Cyst																				2	
Degeneration																				4	2.0
Infiltration Cellular, Lymphocyte								1												2	1.0
Inflammation, Suppurative	4	3	2	2	1		2	3	2	2	2	3	1	2	2	1	2	2	1	43	2.1
Prostate, Ventral Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Degeneration						3				1						3	1			13	2.3
Hyperplasia							1									2	2			8	2.1
Infiltration Cellular, Lymphocyte			1				1													6	1.2
Inflammation, Suppurative						2		1	1											6	2.0
Rete Testes		+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+		47	
Dilatation			1																1	3	1.7
Fibrosis								3												2	2.5
Spermatocoele								4												1	4.0
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Atrophy						2				2										5	2.6

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CD Rat Male
F1 100PPM

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	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4	
	7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	7	
Dilatation																			2 2.0
Fibrosis																			1 2.0
Hyperplasia																			1 2.0
Inflammation, Chronic																			1 1.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Seminif Tub, Degeneration	1	1	4	1		4	4		2	1		1	1	2	1	3		26 2.1	
Hematopoietic System																			
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Erythroid Cell, Hyperplasia																		2 1 2.0	
Hypocellularity																		2 3.5	
Myeloid Cell, Hyperplasia																		2 3 2.0	
Lymph Node	+	+		+	+	+		+										16	
Inguinal, Hyperplasia, Lymphoid																		1 2.0	
Inguinal, Infiltration Cellular, Plasma Cell																		2 3.0	
Lumbar, Degeneration, Cystic	4	4						3										7 3.7	
Lumbar, Hyperplasia, Lymphoid	2							3										4 2.3	
Lumbar, Infiltration Cellular, Plasma Cell	2	4		4	4			4										9 3.8	
Mediastinal, Infiltration Cellular, Plasma Cell																		1 4.0	
Pancreatic, Hyperplasia, Lymphoid								2										1 2.0	
Pancreatic, Infiltration Cellular, Plasma Cell								3										1 3.0	
Popliteal, Hyperplasia, Lymphoid								2										1 2.0	
Popliteal, Infiltration Cellular, Plasma Cell								2										1 2.0	

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First Dose M/F: NA / NA

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CD Rat Male
F1 100PPM

	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	7
	4	4	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4	5	5
	7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	7	2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9
	6	6	7	8	9	9	2	4	4	4	4	5	7	7	8	8	8	8	0	2
	2	3	6	4	4	5	3	2	3	4	5	2	7	8	4	5	6	0	9	
Renal, Hyperplasia, Lymphoid																				1 2.0
Renal, Infiltration Cellular, Plasma Cell																				1 4.0
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M 49	
Degeneration, Cystic		3																		9 2.4
Hyperplasia, Lymphoid		3																		13 2.4
Infiltration Cellular, Plasma Cell		4	4		2	3	2		2	3	2	2	3	3	3	2	2	2		31 2.5
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic																			1 4.0	
Hemorrhage																			1 3.0	
Hyperplasia, Lymphoid																			2 8 2.4	
Infiltration Cellular, Plasma Cell																			2 4.0	
Inflammation, Granulomatous		3	1	2			2	1	2			3	2		2	4	1	1		27 1.7
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Depletion Lymphoid							2												1 2.0	
Hematopoietic Cell Proliferation																			8 2.1	
Hyperplasia, Lymphoid																			1 3 1.7	
Pigmentation		1	1				2	2			3	2	2		3	2				24 2.5
Red Pulp, Hyperplasia											4								1 4.0	
Thymus		+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M 45		
Atrophy		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		43 3.9	
Integumentary System																				
Mammary Gland		+	+	+	I	+	+	I	+	+	I	+	+	+	+	I	+	+	40	

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Experiment Number: 99930-94

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Lab: NCTR

CD Rat Male
F1 100PPM

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	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4	
	7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	7	
Alveolus, Hyperplasia																			2
																			6
Degeneration	1																		1.7
																			12
Duct, Dilatation																			2.8
																			3
Galactocele																			2.7
																			1
Lactation																			4.0
																			3
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																			1.7
Abscess																			4.0
																			1
Angiectasis																			2.0
																			1
Cyst Epithelial Inclusion				X															2
																			2
Epidermis, Hyperplasia																			3.0
																			2
Hemorrhage																			2.0
																			1
Hyperkeratosis																			2.5
																			1
Inflammation, Chronic																			2.0
																			1
Inflammation, Chronic Active																			2.4
																			7
Inflammation, Suppurative	4	4	4	4	4	4	3	4		3	3	3	3	4	4	4	4	29	3.8
																			1
Necrosis																			2.0
Musculoskeletal System																			
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																			1.7
Necrosis																			4.0
Nervous System																			
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																			2.2
Compression																			5

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM	DAY ON TEST	ANIMAL ID																		*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		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hydrocephalus																			1	1.0	
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hydrocephalus																			1	1.0	
Respiratory System																					
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Alveolar Epith, Hyperplasia												1								5	2.6
Artery, Mineralization												1	1							1	1.3
Hemorrhage																				1	4.0
Infiltration Cellular, Histiocyte		1	2	1		1						1	2							20	1.7
Infiltration Cellular, Lymphocyte																				1	1.0
Metaplasia, Osseous			1			1														1	6.0
Pleura, Fibrosis																				1	1.0
Pleura, Hyperplasia																				1	1.0
Pleura, Inflammation, Chronic																				1	1.0
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Foreign Body																				1	
Inflammation, Chronic Active																				1	2.0
Inflammation, Suppurative																				4	1.5
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Special Senses System																					
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43		

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM

	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
	4	4	4	4	4	4	5	4	4	4	4	4	5	5	4	4	4	4	4	4	5
	7	7	5	9	8	8	0	9	9	9	9	8	0	0	9	9	9	9	7	2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9
	6	6	7	8	9	9	2	4	4	4	4	5	7	7	8	4	5	6	0	0	2
	2	3	6	4	4	5	3	2	3	4	5	2	7	8	4	5	6	0	0	9	
Bilateral, Retina, Atrophy		2	2					2	1	2		2	2					2		10	1.9
Retina, Atrophy								2												1	2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Degeneration																				1	2.0
Infiltration Cellular, Lymphocyte															1					3	1.0
Lacrimal Gland	+	+													+					10	
Ectopic Harderian	X	X													X					10	
Urinary System																					
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Capsule, Fatty Change															X					3	
Cortex, Cyst		X		X	X	X	X		X	X					X		X	X	X	22	
Fatty Change																				1	2.0
Hyperplasia, Tubular																				2	3.0
Infiltration Cellular, Lymphocyte																				2	1.5
Mineralization								2												1	2.0
Nephropathy, Chronic	1	4	1	1	2	1		2	1	1	1		3	1	1	1	1	1	1	40	1.5
Pelvis, Hyperplasia		2		1	1								2							6	1.7
Pelvis, Mineralization																				1	2.0
Renal Tubule, Inflammation, Suppurative			2																	1	2.0
Urethra	+																		1		
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Dilatation																			1	4.0	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:39

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

* ..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: 99930-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: Endocrine disruptor (Genistein)
CAS Number: 446-72-0

Date Report Requested: 10/22/2014
Time Report Requested: 17:33:39
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male F1 500PPM	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	2	3	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	
		3	6	3	7	8	1	2	2	4	6	6	8	0	0	1	4	4	5	6	6	
		8	3	3	2	5	8	0	6	2	1	8	7	1	8	9	6	7	9	7	8	
Oral Mucosa																						
Pancreas	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration																						
Acinar Cell, Hyperplasia																						
Autolysis																						
Infiltration Cellular, Lymphocyte																						
Inflammation, Chronic																						
Polyarteritis																						
Salivary Glands	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	
Acinar Cell, Hyperplasia																						
Stomach, Forestomach	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	A	A	+	+	+	
Polyarteritis																						
Stomach, Glandular	A	+	+	+	+	A	A	+	+	+	+	+	+	+	+	A	A	+	+	+	+	
Polyarteritis																						
Cardiovascular System																						
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																						
Cardiomyopathy																						
Polyarteritis																						
Endocrine System																						
Adrenal Cortex	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:41

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:41

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 500PPM	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	
		2	3	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	
		0	5	2	6	6	6	6	7	8	8	0	1	1	1	3	2	3	3	3	3	3	3	
		6	9	8	4	9	2	5	9	5	5	1	0	2	0	9	1	4	7	7	7	8	8	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Polyarteritis																								
Seminif Tub, Degeneration																								
Hematopoietic System																								
Bone Marrow		+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	A	+	+	+	+	+	
Erythroid Cell, Hyperplasia							2							3				3						
Hypocellularity														3	2									
Myeloid Cell, Hyperplasia							3							4	4	4	4	4	4	4	4	5	5	5
Lymph Node																								
Lumbar, Degeneration, Cystic																								4
Lumbar, Infiltration Cellular, Plasma Cell																								4
Pancreatic, Hyperplasia, Lymphoid																								2
Pancreatic, Infiltration Cellular, Plasma Cell																								2
Popliteal, Infiltration Cellular, Plasma Cell																								
Lymph Node, Mandibular		+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	A	+	+	+	+	+	
Autolysis															2									
Degeneration, Cystic																								
Hemorrhage																								
Hyperplasia, Lymphoid							4					2	3			4	2	2		2	3	2	2	2
Infiltration Cellular, Plasma Cell							2					4	3	3	2		3	2		3	2	4	2	3
Pigmentation																								
Lymph Node, Mesenteric		A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	M	A	+	+	+	+	+	
Autolysis															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: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:42

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

CD Rat Male F1 500PPM	DAY ON TEST																									
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degeneration, Cystic																										
Hemorrhage																										
Hyperplasia, Lymphoid																										
Infiltration Cellular, Mast Cell																										
Infiltration Cellular, Plasma Cell																										
Inflammation, Granulomatous																										
Polyarteritis																										
Spleen	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adventitia, Polyarteritis																										
Autolysis																										
Capsule, Fibrosis																										
Depletion Lymphoid																										
Hematopoietic Cell Proliferation	3	4																								
Hyperplasia, Lymphoid																										
Hyperplasia, Stromal																										
Pigmentation																										
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	A	+	+	M	+	+	+	
Atrophy	2	4												4	4	4	4	4	4	A	4	4	4	4	3	4
Autolysis																										
Hemorrhage																										
Integumentary System																										
Mammary Gland	A	+	+	+	+	A	A	+	+	+	I	A	I	+	+	+	+	+	A	+	+	+	+	+	+	

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

+ .. Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:42

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

* ..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

| ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

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

+ .. Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 „Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 500PPM	DAY ON TEST	0 0																		
		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7																		
		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 4 4 4																		
		3 5 5 4 6 5 9 8 8 8 9 9 9 9 9 9 0 9 9 9																		
		0 0																		
ANIMAL ID		0 0																		
		6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8																		
		9 2 2 2 6 6 8 8 8 9 9 9 4 4 4 5 7 8 9 0 9																		
		7 7 8 9 4 7 3 8 9 0 1 7 8 9 0 9 3 8 9 9																		

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Dilatation																			1 4.0
Hyperkeratosis																			7 1.6
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Autolysis																			1 4.0
Hyperplasia, Lymphoid																			1 2.0
Polyarteritis																			1 4.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Autolysis																			1 4.0
Hyperplasia, Lymphoid																			1 3.0
Polyarteritis																			1 3.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	34
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Autolysis																			1 4.0
Hemorrhage																			1 2.0
Inflammation, Suppurative																			1 3.0
Necrosis																			1 2.0
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Polyarteritis																			1 2.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Polyarteritis																			1 2.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

	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		
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4		
	3	5	5	4	6	5	9	8	8	8	9	9	9	9	9	0	9	9	9		
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Adventitia, Hemorrhage																				1 3.0	
Angiectasis																				2 1.5	
Autolysis																				3 2.3	
Basophilic Focus					X		X													5	
Basophilic Focus, Multiple																				1	
Bile Duct, Hyperplasia	1	1	1			1		2												19 1.2	
Biliar Tract, Fibrosis				1	1	1		1												16 1.1	
Capsule, Fibrosis									1											1 1.0	
Clear Cell Focus, Multiple																				1	
Cyst																X				1	
Degeneration, Cystic																				1 1.0	
Eosinophilic Focus, Multiple																	X			1	
Hemorrhage								2												1 2.0	
Hepatodiaphragmatic Nodule														X						3	
Infiltration Cellular, Lymphocyte	1								1											8 1.0	
Inflammation, Chronic Active		1					1											1		6 1.0	
Necrosis								1												3 1.0	
Polyarteritis																				1 4.0	
Tension Lipidosis																				1 3.0	
Vacuolization Cytoplasmic																				2 1.5	
Mesentery																		1			
Fat, Necrosis																			1	4.0	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:45

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F1 500PPM**

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

***TOTALS**

Oral Mucosa																			1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Acinar Cell, Degeneration	2	2	3	2	1		2	1	2	1		1	2	1	1	2	1	1	27
Acinar Cell, Hyperplasia																			1.9
Autolysis																			3
Infiltration Cellular, Lymphocyte																			2
Inflammation, Chronic																			1.5
Polyarteritis																			3.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Acinar Cell, Hyperplasia																			2
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Polyarteritis																			1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Polyarteritis																			2.0
Cardiovascular System																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Autolysis																			1
Cardiomyopathy					1				1										4.0
Polyarteritis																			21
																			1.1
																			2
																			1.5
Endocrine System																			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

	DAY ON TEST	CD Rat Male F1 500PPM																	
		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
Accessory Adrenal Cortical Nodule		X																	3
Angiectasis																		2	2 1.5
Cyst																			1
Degeneration, Cystic																			2 1.5
Hyperplasia																			2 1.5
Hypertrophy																			3 1.3
Pigmentation																			1 2.0
Vacuolization Cytoplasmic			1			2		1		1	2			1	2	1			13 1.4
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Bilateral, Hyperplasia																			1 1.0
Hyperplasia																			5 1.2
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia	2	2	1			1					1	1	1	1	1				21 1.2
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	+	+	47
Hyperplasia																			2 1.5
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																			1 3.0
Pars Distalis, Cyst	X																		5
Pars Distalis, Cyst, Multiple																			1
Pars Distalis, Hyperplasia	2					2		3						2	2	1	1		13 1.8
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Autolysis																			1 4.0
C Cell, Hyperplasia						3		1		1				1					9 1.4

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:45

First Dose M/F: NA / NA

Lab: NCTR

* ..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: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:46

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

	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	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	
		3	5	5	4	6	5	9	8	8	8	9	9	9	9	0	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	
		6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
		9	2	2	2	6	6	8	8	8	9	9	4	4	4	5	7	8	9	
		7	7	8	9	4	7	3	8	9	0	1	7	8	9	0	9	3	8	
Prostate, Dorsal Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																				1 3.0
Degeneration																				2 1.5
Inflammation, Suppurative		2	2	3	3	3	2	2	2		4	1	3	2	3	2		2	2	3
Polyarteritis																				2 2.0
Prostate, Ventral Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Autolysis																				1 3.0
Degeneration																				7 2.1
Hyperplasia		2				1				3			2	1	3					9 1.8
Infiltration Cellular, Lymphocyte											1									4 1.0
Inflammation																				1 4.0
Inflammation, Suppurative																				4 2.5
Interstitial, Fibrosis																				1 1.0
Polyarteritis																				1 2.0
Rete Testes		+	+	+	+	+	M	+	+	I	+	+	+	+	+	+	+	+	+	44
Dilatation																				3 2.0
Fibrosis																				1 3.0
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Atrophy																				5 2.8
Dilatation							2						2							2 2.0
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Artery, Mineralization																				1 3.0
Autolysis																				1 4.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:46

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 500PPM	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	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	
		3	5	5	4	6	5	9	8	8	8	9	9	9	9	0	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	
		6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
		9	2	2	2	6	6	8	8	8	9	9	4	4	4	5	7	8	9	
		7	7	8	9	4	7	3	8	9	0	1	7	8	9	0	9	3	8	
Polyarteritis																				1 2.0
Seminif Tub, Degeneration																				17 1.9
Hematopoietic System																				
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Erythroid Cell, Hyperplasia																				4 2.8
Hypocellularity																				3 2.3
Myeloid Cell, Hyperplasia																				8 3.0
Lymph Node																				8
Lumbar, Degeneration, Cystic																				4 3.3
Lumbar, Infiltration Cellular, Plasma Cell																				4 4.0
Pancreatic, Hyperplasia, Lymphoid																				1 2.0
Pancreatic, Infiltration Cellular, Plasma Cell																				2 2.5
Popliteal, Infiltration Cellular, Plasma Cell																				1 4.0
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	46
Autolysis																				1 2.0
Degeneration, Cystic																				7 2.7
Hemorrhage																				1 2.0
Hyperplasia, Lymphoid																				19 2.3
Infiltration Cellular, Plasma Cell		4	3	4	3	4	2	2		3	2	2	2	1	3	2	2	2		33 2.8
Pigmentation																				1 2.0
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Autolysis																				1 2.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:47

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

	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	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	
		3	5	5	4	6	5	9	8	8	8	9	9	9	9	0	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	
		6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
		9	2	2	2	6	6	8	8	8	9	9	4	4	4	5	7	8	9	
		7	7	8	9	4	7	3	8	9	0	1	7	8	9	0	9	3	8	
Degeneration, Cystic													4	1	4					6 3.0
Hemorrhage																				1 2.0
Hyperplasia, Lymphoid																				11 2.0
Infiltration Cellular, Mast Cell																				2 2.0
Infiltration Cellular, Plasma Cell																				4 2.8
Inflammation, Granulomatous					2															17 1.8
Polyarteritis																				2 3.0
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Adventitia, Polyarteritis																				1 3.0
Autolysis																				3 2.0
Capsule, Fibrosis																				1 2.0
Depletion Lymphoid																				2 4.0
Hematopoietic Cell Proliferation																				9 2.6
Hyperplasia, Lymphoid																				3 2.0
Hyperplasia, Stromal																				1 3.0
Pigmentation		3	2		3		1	2		4	2	2	2	3	2	2	2	2	2	31 2.5
Thymus		I	+	+	+	+	I	+	+	+	+	+	+	+	M	+	+	M	+	42
Atrophy		4	4	4	4		4	4	4	4	4	4	4	4	4	4	4	4	4	39 3.8
Autolysis																				1 4.0
Hemorrhage																				1 3.0
Integumentary System																				
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	42

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:47

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F1 500PPM**

	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	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	
		3	5	5	4	6	5	9	8	8	8	9	9	9	9	0	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	
		6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
		9	2	2	2	6	6	8	8	8	9	9	9	4	4	4	5	7	8	
		7	7	8	9	4	7	3	8	9	0	1	7	8	9	0	9	3	8	
Alveolus, Hyperplasia		1	1											1						8 1.4
Degeneration	2	2			2	4	3		4					4						14 2.9
Duct, Dilatation														4						3 2.7
Lactation			2					2												7 2.0
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Abscess																				1 4.0
Angiectasis																				1 3.0
Cyst Epithelial Inclusion			X																	2
Epidermis, Hyperplasia																				1 2.0
Foreign Body														X						1
Hyperkeratosis																				1 2.0
Inflammation, Chronic								2												1 2.0
Inflammation, Chronic Active							3													5 2.8
Inflammation, Pyogranulomat														4						1 4.0
Inflammation, Suppurative	4		4	4	4				4	4	4			4						19 3.8
Necrosis				2																4 2.5

Musculoskeletal System

Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																			1

Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Compression																			5 2.6

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:48

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

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

*TOTALS

1 2.0

Hemorrhage + + + + + + + + + + + + + + + + + + 47

Brain, Cerebellum + + + + + + + + + + + + + + + + + + 47

2 3.5

Hemorrhage + + + + + + + + + + + + + + + + + + 48

Brain, Cerebrum + + + + + + + + + + + + + + + + + + 48

1 2.0

Hemorrhage + + + + + + + + + + + + + + + + + + 48

3 1.7

Hydrocephalus 2

Infiltration Cellular, Lymphocyte + + + + + + + + + + + + + + + + + + 48

1 2.0

Mineralization + + + + + + + + + + + + + + + + + + 48

Respiratory System

Lung + + + + + + + + + + + + + + + + + + 47

1 1.0

Alveolar Epith, Hyperplasia 1 1

1 1.1

Artery, Mineralization 1 1

2 3.0

Autolysis 1 1

Infiltration Cellular, Histiocyte 1 1 2 1 1 1 1 2 1 16 1.3

1 3.0

Inflammation, Suppurative 1 1

Metaplasia, Osseous 1 1

3 1.0

Peribronchial, Hyperplasia, Lymphoid 1 1

1 2.0

Pigmentation 1 1

1 1.0

Polyarteritis 2 2

Nose + + + + + + + + + + + + + + + + + + 48

2 2.0

Autolysis 1 1

Inflammation, Suppurative 2 1 1 4 2.3

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

+ ..Tissue examined microscopically M ..Missing tissue

X ..Lesion present A ..Autolysis precludes evaluation

I ..Insufficient tissue BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:48

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 500PPM	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	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keratin Cyst																			1
Metaplasia, Osseous																			1 1.0
Upper Molar, Inflammation, Chronic Active																			2 1.5
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Epithelium, Hyperplasia																			1 2.0
Special Senses System																			
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	35	
Bilateral, Retina, Atrophy									1			2			2	1	1	1	6 1.3
Cataract																			2 2.0
Inflammation, Chronic Active																			1 2.0
Inflammation, Suppurative																			1 4.0
Retina, Atrophy																			1 1.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	37	
Degeneration																			1 1.0
Infiltration Cellular, Lymphocyte	1	1										1				1			4 1.0
Pigmentation																			1 4.0
Lacrimal Gland	+	+																	14
Ectopic Harderian	X	X																	14
Zymbal's Gland																			1
Urinary System																			
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Accumulation, Hyaline Droplet																			1 4.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:48

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM

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

*TOTALS

Autolysis																	4	3.3
Capsule, Fatty Change																	2	
Cortex, Cyst	X	X	X	X	X		X	X		X	X	X	X	X	X	X	29	
Fibrosis																	1	1.0
Infiltration Cellular, Lymphocyte											1						5	1.0
Inflammation, Chronic												1					1	1.0
Nephropathy, Chronic	1	2	1	1		1	1	2	1	1							37	1.8
Pelvis, Dilatation												2	1	2	3	2		
Pelvis, Hyperplasia																	1	4.0
Polyarteritis																	2	2.0
Renal Tubule, Dilatation																	1	2.0
Renal Tubule, Inflammation, Suppurative																	1	2.0
Renal Tubule, Mineralization					1					2							4	1.8
Urethra																	1	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Autolysis																	1	4.0
Hemorrhage											1						2	1.5

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:49

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM/CTL

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

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:50

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/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	
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	3	3	
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	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	1	1	1	2	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	5	
		9	2	7	9	5	0	1	2	6	0	1	3	4	5	7	7	7	1	2	7	7	9	
		2	1	6	9	4	2	9	9	6	9	0	6	8	9	2	3	7	3	5	3	4	7	
Tension Lipidosis																							3	
Vacuolization Cytoplasmic																							1	
Mesentery																								
Fat, Necrosis																								
Pancreas	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration							2	2	3	1	3						2	2	2	2	2	1	1	3
Autolysis																								
Pigmentation																								
Salivary Glands	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Hyperplasia																								
Atrophy																							3	
Hyperplasia, Lymphoid																								
Stomach, Forestomach	+	+	+	+	+	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Submucosa, Edema																								
Stomach, Glandular	+	+	+	+	+	A	A	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	
Cardiovascular System																								
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart	+	+	+	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy																							1	
Metaplasia, Osseous																								
Polyarteritis																							2	
Endocrine System																								

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

+ ..Tissue examined microscopically

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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:50

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM/CTL

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1-4 ..Lesion qualified as:

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A ..Autolysis precludes evaluation

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:51

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/CTL	DAY ON TEST																				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	9
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Follicular Cel, Cyst																					X
Follicular Cel, Hyperplasia																					3
General Body System																					
NONE																					
Genital System																					
Coagulating Gland		+	+	+	A	+	A	A	+	A	+	+	+	+	A	+	+	+	+	+	+
Atrophy																	2	2	2		
Autolysis																					2
Developmental Malformation																					
Hyperplasia																					2
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Degeneration																					3
Hypospermia																					4
Infiltration Cellular, Lymphocyte																					
Penis							+														
Concretion							X														
Hemorrhage							1														
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																					4
Atrophy																					2
Duct, Dilatation																					3
Infiltration Cellular, Lymphocyte																					4
																					2

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/CTL	DAY ON TEST																					
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	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	1	1	1	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	
		9	2	7	9	5	0	1	2	6	0	1	3	4	5	7	7	1	2	7	9	
		2	1	6	9	4	2	9	9	6	9	0	6	8	9	2	3	5	3	4	7	8
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0</																	

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:52

First Dose M/F: NA / NA

Lab: NCTR

Hematopoietic System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Lab: NCTR

CD Rat Male F1 5PPM/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																																								
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7																																								
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	4																																								
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	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	1	1	1	2	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	6																																								
		9	2	7	9	5	0	1	2	6	0	1	3	4	5	7	7	1	2	7	9	9																																								
		2	1	6	9	4	2	9	9	6	9	0	6	8	9	2	3	7	3	5	4	7																																								
Autolysis		4																																																												
Degeneration, Cystic		2																																																												
Hyperplasia, Lymphoid		2	2	2																																																										
Infiltration Cellular, Mast Cell		2	2																																																											
Infiltration Cellular, Plasma Cell		2																																																												
Inflammation, Granulomatous		2																																																												
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																																									
Autolysis		3																																																												
Hematopoietic Cell Proliferation		3	3	3																																																										
Hyperplasia, Lymphoid		2	2	1																																																										
Pigmentation		3	3	3	4	2																																																								
Thymus		+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+																																									
Atrophy		3	2	4	4	4	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	4																																								
Autolysis		4																																																												
Epithel Cell, Hyperplasia		3																																																												
Hyperplasia, Lymphoid		3																																																												
Integumentary System																																																														
Mammary Gland		+	I	A	+	I	A	A	I	+	+	+	+	+	+	I	+	+	+	+	+																																									
Alveolus, Hyperplasia																																																														
Degeneration		2																																																												
Duct, Dilatation		3																																																												
Lactation		2																																																												

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Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:52

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/CTL	DAY ON TEST																					
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	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	1	1	1	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	
		9	2	7	9	5	0	1	2	6	0	1	3	4	5	7	7	1	2	7	9	
		2	1	6	9	4	2	9	9	6	9	0	6	8	9	2	3	7	3	5	4	
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst Epithelial Inclusion																X	X					
Epidermis, Hyperplasia		3	3					2		3												
Hyperkeratosis		3	3					2		2												
Inflammation, Chronic																			1			
Inflammation, Chronic Active		3									3	4				2					2	
Inflammation, Suppurative													4		4	4		4			4	
Necrosis																	3				2	
Musculoskeletal System																						
Bone, Femur		I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nervous System																						
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																		2				
Compression																	2	3				
Gliosis																						
Hemorrhage																						
Brain, Cerebellum		+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																		2				
Hemorrhage																						
Hydrocephalus																	1	2				
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Autolysis																		2				

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:53

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/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	
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	3	3	3	
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	9	9	8	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hemorrhage		2		2																					
Hydrocephalus																	1	2							
Respiratory System																									
Lung		+	+	+	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	
Alveolar Epith, Hyperplasia																									2
Artery, Mineralization																	1	1	1					1	
Autolysis																	2								
Infiltration Cellular, Histiocyte		1		2													1	1	2	2	2	2			2
Infiltration Cellular, Histiocytic																									1
Infiltration Cellular, Lymphocyte					2																				
Inflammation, Chronic																	2								
Metaplasia, Osseous																	2								1
Nose		+	+	+	+	+	+	A	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	
Autolysis																	2								
Foreign Body		X																							
Fungus		X																							
Inflammation, Chronic Active		4	2																						2
Inflammation, Suppurative		1															2		2					1	
Necrosis		4	2																						
Upper Molar, Inflammation, Chronic Active																2	2								
Trachea		+	+	+	+	+	+	+	A	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	
Special Senses System																									

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:33:54

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/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
		4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		0	8	6	8	2	5	6	6	8	1	1	2	3	3	3	3	3	3	3	3	3	3	3
		6	6	5	4	7	5	5	9	9	3	3	4	1	4	7	7	7	8	6	9	9	8	9
Inflammation, Chronic																								
Nephropathy, Chronic		1	1	2		2	2				1	3	2	4		1	3	2	1	1	1	2	2	1
Pelvis, Dilatation																								2
Pelvis, Hyperplasia																								1
Pelvis, Inflammation, Suppurative																								
Pelvis, Mineralization																								
Polycystic Kidney																								
Renal Tubule, Dilatation																								
Urethra																								
Urinary Bladder		+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+
Autolysis																								
Inflammation, Chronic Active																								
Transit Epithe, Hyperplasia																								

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

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																		2 1.5
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	37
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis																		4 2.0
Autolysis																		2 2.5
Basophilic Focus																		2
Bile Duct, Hyperplasia																		14 1.1
Biliar Tract, Fibrosis		1																12 1.1
Clear Cell Focus, Multiple																		1
Degeneration, Cystic																		3 1.7
Developmental Malformation						X												1
Eosinophilic Focus, Multiple																		2
Fatty Change																		1 2.0
Infiltration Cellular, Lymphocyte																		1 1.0
Inflammation, Chronic Active	1		1															6 1.0

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CD Rat Male F1 5PPM/CTL	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	0	
Tension Lipidosis																				1 3.0
Vacuolization Cytoplasmic																				3 1.3
Mesentery																				1
Fat, Necrosis																				1 4.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Acinar Cell, Degeneration	1	2	3	1	3	3		1	2		1	2	2	2	3	1	2	1		32 1.9
Autolysis																				2 3.0
Pigmentation																				1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Acinar Cell, Hyperplasia																				1 2.0
Atrophy																				1 3.0
Hyperplasia, Lymphoid																				1 4.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Submucosa, Edema																				1 3.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Cardiomyopathy	1	1	1					2	1	2		1								23 1.3
Metaplasia, Osseous																				2 1.0
Polyarteritis																				1 2.0
Endocrine System																				

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CD Rat Male
F1 5PPM/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	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	
		3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	0	2	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		6	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	
		8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	0	2	2	
		5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0	
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Angiectasis																				2 2.0
Autolysis																				1 3.0
Capsule, Fibrosis																				1 1.0
Degeneration, Cystic																				1 2.0
Hyperplasia																				5 2.2
Hypertrophy																				6 1.7
Vacuolization Cytoplasmic																				26 1.3
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperplasia																				6 1.5
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia																				19 1.2
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Bilateral, Hyperplasia																				1 1.0
Hyperplasia																				9 1.6
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																				2 3.0
Pars Distalis, Cyst							X													6
Pars Distalis, Cyst, Multiple														X						1
Pars Distalis, Hyperplasia																				19 1.7
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
C Cell, Hyperplasia																				2 2.0
Cyst, Squamous															X					2

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Lab: NCTR

CD Rat Male
F1 5PPM/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	4	4	4	4	4	4	4	5	5	5	5	5	5
	3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9
	8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	0	2	2
	5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0

*TOTALS

Follicular Cel, Cyst
Follicular Cel, Hyperplasia

X 2

1 3.0

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Atrophy																		3 2.0
Autolysis																		1 2.0
Developmental Malformation									X				X					2
Hyperplasia																		1 2.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration																		1 3.0
Hypospermia																		1 4.0
Infiltration Cellular, Lymphocyte								1										1 1.0
Penis																		1
Concretion																		1
Hemorrhage																		1 1.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Abscess																		1 4.0
Atrophy																		2 2.5
Duct, Dilatation							3	4		2	3	4						8 3.4
Infiltration Cellular, Lymphocyte	2	1							1				1	2	2			15 1.5

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:55

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/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	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	
		3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	2	2	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		6	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	
		8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	0	2	2	
		5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0	
Inflammation, Suppurative		3	2	4	4	2	1	4	4	2	1	4	4	4	3	3	20	3.2		
Parenchym Cell, Degeneration	2	2		2	1						1					1	2	1	21	2.0
Prostate																				8
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																				2 3.5
Degeneration																				1 2.0
Infiltration Cellular, Lymphocyte																				1 1.0
Inflammation, Suppurative	2	2	2	2	2	2	2	1	1	3	2	2					3	1	34	2.1
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Autolysis																				3 3.0
Degeneration								1												5 1.8
Hyperplasia									4					2		2	1			9 2.3
Infiltration Cellular, Lymphocyte										1										6 1.0
Inflammation, Suppurative																				6 2.0
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Dilatation											1									3 1.3
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Atrophy																				2 2.0
Dilatation																				1 2.0
Inflammation, Chronic																				1 2.0
Testes	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Polyarteritis																				1 1.0
Seminif Tub, Degeneration	1	2	1					1	1	1	1	2	1			4	2	1	32	1.6

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

+ ..Tissue examined microscopically

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X ..Lesion present

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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: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:56

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/CTL	DAY ON TEST	0 0																																				
		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7																																				
		4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5																																				
		3 3 4 4 4 4 5 9 9 8 9 9 0 0 0 0 0 0 0 0																																				
		0 0																																				
		0 0																																				
ANIMAL ID																																						
6 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 9 9 9 9																																						
8 0 1 3 4 4 7 9 9 0 5 6 9 9 9 9 0 2 2 2																																						
5 0 6 7 0 1 4 8 9 4 6 0 2 3 4 5 3 0 0 3																																						

*TOTALS

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Erythroid Cell, Hyperplasia																			1 2.0
Myeloid Cell, Hyperplasia																			3 2.7
Lymph Node																			14
Lumbar, Degeneration, Cystic	2																		9 3.0
Lumbar, Hyperplasia, Lymphoid																			1 3.0
Lumbar, Infiltration Cellular, Plasma Cell																			6 3.7
Mediastinal, Hyperplasia, Lymphoid																			1 2.0
Pancreatic, Hyperplasia, Lymphoid																			1 2.0
Pancreatic, Inflammation, Granulomatous																			1 1.0
Popliteal, Degeneration, Cystic																			1 2.0
Popliteal, Hyperplasia, Lymphoid																			2 3.0
Popliteal, Infiltration Cellular, Plasma Cell																			2 3.0
Renal, Degeneration, Cystic																			1 3.0
Renal, Hyperplasia, Lymphoid																			1 4.0
Renal, Infiltration Cellular, Plasma Cell																			1 4.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Degeneration, Cystic																			6 2.2
Hyperplasia, Lymphoid																			17 2.2
Infiltration Cellular, Plasma Cell	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28	2.4
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:56

First Dose M/F: NA / NA

Lab: NCTR

* ..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

| ..Insufficient tissue

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2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:57

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM/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	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	
		3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	0	2	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		6	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	
		8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	0	2	2	
		5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0	
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst Epithelial Inclusion				X																3
Epidermis, Hyperplasia																				6 2.5
Hyperkeratosis																				6 2.2
Inflammation, Chronic																				1 1.0
Inflammation, Chronic Active	4																			7 2.9
Inflammation, Suppurative		3		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	21 4.0
Necrosis																				3 2.7
Musculoskeletal System																				
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Nervous System																				
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Autolysis																				1 2.0
Compression																				4 2.0
Gliosis																				1 2.0
Hemorrhage																				1 2.0
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																				1 2.0
Hemorrhage																				1 2.0
Hydrocephalus																				2 1.5
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Autolysis																				1 2.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:57

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 5PPM/CTL	DAY ON TEST	Data Grid Rows (18 columns)																		*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	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	9	0	2	2	
	5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0	3	
	*TOTALS																			
Hemorrhage																			2	2.0
Hydrocephalus																			2	1.5
Respiratory System																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Alveolar Epith, Hyperplasia																			1	1
Artery, Mineralization																			2	5
Autolysis																				1
Infiltration Cellular, Histiocyte	1			1		1		2											1	1.5
Infiltration Cellular, Histiocytic																			1	1.0
Infiltration Cellular, Lymphocyte																			1	2.0
Inflammation, Chronic																			1	2.0
Metaplasia, Osseous																			1	3
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Autolysis																			1	2.0
Foreign Body																			1	
Fungus																			1	
Inflammation, Chronic Active																			3	2.7
Inflammation, Suppurative																			5	1.4
Necrosis																			2	3.0
Upper Molar, Inflammation, Chronic Active																			2	2.0
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Special Senses System																				

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:57

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM/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	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5		
		3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	2	2	2		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		6	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9		
		8	0	1	3	4	4	7	9	9	0	5	6	9	9	9	0	2	2		
		5	0	6	7	0	1	4	8	9	4	6	0	2	3	4	5	3	0		
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	37		
Bilateral, Retina, Atrophy										2	2	1								5	1.6
Cataract										1										1	1.0
Retina, Atrophy																				2	2.0
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	39		
Degeneration																				1	2.0
Epithelium, Hyperplasia																				1	1.0
Infiltration Cellular, Lymphocyte																				1	1.0
Inflammation, Chronic																				1	2.0
Lacrimal Gland							+												14		
Degeneration							2													1	2.0
Ectopic Harderian														X						13	
Infiltration Cellular, Lymphocyte																				1	2.0
Inflammation, Chronic Active							3													1	3.0
Urinary System																					
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Autolysis																				3	4.0
Capsule, Fatty Change																X				2	
Congestion																	3			1	3.0
Cortex, Cyst		X		X	X		X	X	X		X	X	X		X	X		X	27		
Fibrosis																				1	2.0
Infiltration Cellular, Lymphocyte							1													2	1.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:58

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 5PPM/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	0	0	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	
	3	3	4	4	4	4	5	9	9	8	9	9	0	0	0	0	0	2	2	2	2	
Inflammation, Chronic																				1	1.0	
Nephropathy, Chronic	1	3	2		1	1		1	2		2	1	1	1	1	1	2	2	1	1	39	1.5
Pelvis, Dilatation																					1	2.0
Pelvis, Hyperplasia																					1	1.5
Pelvis, Inflammation, Suppurative																					1	2.0
Pelvis, Mineralization																					2	1.0
Polycystic Kidney																					1	3.0
Renal Tubule, Dilatation																					1	2.0
Urethra																					1	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Autolysis																					1	3.0
Inflammation, Chronic Active																					1	3.0
Transit Epithe, Hyperplasia																					1	3.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:58

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM/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			
	2	3	3	4	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	6	5	6	5	0	0	1	2	3	4	4	7	7	0	0	2	3	3	3	3	3	3	3	3	3	4	4	4	
	7	0	2	6	3	5	0	7	1	4	8	6	8	2	3	2	7	7	7	7	8	8	8	8	7	2	4	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	
	4	6	6	1	2	2	2	4	6	8	9	4	8	9	3	7	7	7	0	1	1	1	1	2	2	2	2	2	
	2	1	4	6	7	5	2	6	0	9	0	6	9	8	1	0	4	5	5	6	3	4	5	6	7	8	3	1	2

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:33:59

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM/CTL	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	2	3	3	4	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	
		6	5	6	5	0	0	1	2	3	4	4	7	7	0	2	3	3	3	3	3	
		7	0	2	6	3	5	0	7	1	4	8	6	8	2	3	2	7	7	7	8	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	3	3	3	3	4	4	4	5	5	5	
		4	6	6	1	1	2	2	2	4	6	8	9	4	4	8	9	3	7	7	0	
		2	1	4	6	7	5	6	0	9	6	0	6	9	8	1	0	4	5	6	9	
Hepatodiaphragmatic Nodule																		X			X	
Infiltration Cellular, Lymphocyte																		1				
Inflammation, Chronic Active	1																			1		1
Necrosis	1																					
Tension Lipidosis																						
Vacuolization Cytoplasmic																		2				
Mesentery																			+			
Fat, Necrosis																			3			
Pancreas	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accessory Spleen																						
Acinar Cell, Degeneration	1																					
Adventitia, Polyarteritis																						
Autolysis																						
Inflammation, Chronic																						
Inflammation, Chronic Active																						
Pigmentation																						
Salivary Glands	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Glandular	+	+	A	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiovascular System																						
Blood Vessel	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:00

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

General Body System

NONE

Genital System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

| ..Insufficient tissue

A ..Autolysis precludes evaluation

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:00

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:01

First Dose M/F: NA / NA

Lab: NCTR

* ..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: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:01

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:02

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/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
	2	3	3	4	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7
	6	5	6	5	0	0	1	2	3	4	4	7	7	0	2	3	3	3	3	3
	7	0	2	6	3	5	0	7	1	4	8	6	8	2	3	2	7	7	8	8
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	3	3	3	3	4	4	4	5	5	5
	4	6	6	1	1	2	2	2	4	6	8	9	4	4	8	9	3	7	7	0
	2	1	4	6	7	5	6	0	9	6	0	6	9	8	1	0	4	5	6	3

Hyperplasia, Lymphoid

Inflammation, Chronic Active

4

Necrosis

4

Pigmentation

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

I + + A + + I + M + + + + M + I I + + + + + + + M + + + A + + + +

Thymus 4 4 4 3 4 2 4 4 4 4 4 4 4 4 4 4 4 3 4 4 4 4 4 4 4

Atrophy

4 4 4 3 4 2 4 4 4 4 4 4 4 4 4 4 4 3 4 4 4 4 4 4 4

Autolysis

4

Integumentary System

Mammary Gland	I	+	M	I	I	+	I	I	M	+	I	I	+	M	+	+	+	+	+	A	+	+	I	+				
Alveolus, Hyperplasia																									2			
Degeneration																									3			
Duct, Dilatation																									3			
Infiltration Cellular, Mast Cell							2																					
Lactation																									2			
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Fibrosis																									4			
Foreign Body							X																					
Hemorrhage																												
Inflammation, Chronic																									2			
Inflammation, Chronic Active							2	1	2					4		3	4	3	4									
Inflammation, Granulomatous																												
Inflammation, Suppurative							4							4		4		4					4	4	3	4	4	4

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:03

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM/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	
	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	1	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	
		4	6	6	1	1	2	2	2	4	6	8	9	4	4	8	9	3	7	7	0	1	1	
		2	1	4	6	7	5	6	0	9	6	0	6	9	8	1	0	4	5	6	9	3	1	
Lung		+	+	A	A	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	
Alveolar Epith, Hyperplasia																								2
Artery, Mineralization																								
Hemorrhage																								4
Infiltration Cellular, Histiocyte																								2
Metaplasia, Osseous																								1
Nose		+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	
Foreign Body																								X
Inflammation, Chronic Active																								2
Inflammation, Suppurative																								1
Keratin Cyst																								X
Trachea		+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	
Special Senses System																								
Eye																								+
Antr Chamber, Hemorrhage																								4
Antr Chamber, Inflammation, Suppurative																								4
Bilateral, Retina, Atrophy																								2
Cornea, Degeneration																								4
Cornea, Inflammation, Suppurative																								4
Cornea, Ulcer																								4
Harderian Gland																								+
Infiltration Cellular, Lymphocyte																								1

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:04

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 100PPM/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			
	2	3	3	4	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	6	5	6	5	0	0	1	2	3	4	4	7	7	0	0	2	3	3	3	3	3	3	3	3	3	4	4	4	
	7	0	2	6	3	5	0	7	1	4	8	6	8	2	3	2	7	7	7	7	8	8	8	8	7	2	4	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	
	4	6	6	1	2	2	2	4	6	8	9	4	8	9	3	7	7	7	0	1	1	1	1	2	2	2	2	2	
	2	1	4	6	7	5	2	6	0	9	0	6	9	8	1	0	4	5	5	6	3	4	5	6	7	8	3	1	2

Urethra

Congestion

Urinary Bladder

Autolysis

Dilatation

Hemorrhage

(3)

4

3

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

+ .. Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:04

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

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

*TOTALS

Alimentary System

Esophagus	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperkeratosis																			1 2.0
Intestine Large, Cecum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42	
Hyperplasia, Lymphoid																			1 2.0
Intestine Large, Colon	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Intestine Large, Rectum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	33	
Intestine Small, Duodenum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Intestine Small, Ileum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42	
Intestine Small, Jejunum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42	
Liver	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Angiectasis		2																4 2.3	
Autolysis																		1 3.0	
Basophilic Focus	X																	4	
Bile Duct, Hyperplasia																		8 1.3	
Biliar Tract, Fibrosis																		9 1.0	
Clear Cell Focus, Multiple																		1	
Cyst	X																	1	
Degeneration, Cystic																		3 1.7	
Eosinophilic Focus							X											3	
Eosinophilic Focus, Multiple																		1	
Hematopoietic Cell Proliferation																		1 1.0	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:04

First Dose M/F: NA / NA

Lab: NCTR

* ..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

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2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:05

First Dose M/F: NA / NA

Lab: NCTR

* ..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

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2) Mild 4) Marked

Experiment Number: 99930-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: Endocrine disruptor (Genistein)
 CAS Number: 446-72-0

Date Report Requested: 10/22/2014
 Time Report Requested: 17:34:05
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 100PPM/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	4	4	4	4	4	4	5	4	5	4	4	5	4	5
	5	5	4	6	6	6	5	5	9	8	0	9	0	9	9	2	7	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9
	3	3	4	6	6	7	7	7	8	9	2	5	8	9	9	0	2	2
	3	4	3	8	9	0	2	3	5	7	5	7	7	0	1	1	6	1

*TOTALS

Hyperplasia	2	1	1	8	1.3
Pituitary Gland	+	+	+	+	+
Autolysis			4		3 4.0
Pars Distalis, Cyst				X	3
Pars Distalis, Cyst, Multiple					1
Pars Distalis, Hyperplasia	1		3		
Pars Intermed, Hyperplasia			2		19 1.8
			2		1 2.0
Thyroid Gland	+	+	A	+	+
Cyst, Squamous		X			4
Vacuolization Cytoplasmic				3 3	2 3.0

General Body System

NONE

Genital System

Coagulating Gland	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Atrophy																		3 2.0
Developmental Malformation								X										4
Inflammation, Suppurative																		1 4.0
Epididymis	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Degeneration									1									5 2.2
Hypospermia									4									7 4.0
Infiltration Cellular, Lymphocyte										1								4 1.3
Inflammation, Suppurative																		1 4.0

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:06

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/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	4	4	4	4	4	4	4	4	4	5	4	5	4	4	5	4			
		5	5	4	6	6	6	5	5	9	8	0	9	0	9	9	2	7	2			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9			
		3	3	4	6	6	7	7	7	8	9	2	5	8	9	9	0	0	2			
		3	4	3	8	9	0	2	3	5	7	5	7	7	0	1	1	6	1			
Preputial Gland		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48			
Abscess																				1	4.0	
Atrophy																				1	2.0	
Autolysis																				1	4.0	
Duct, Dilatation																				3	3.7	
Infiltration Cellular, Lymphocyte																				2	16 1.4	
Inflammation, Chronic																					1	2.0
Inflammation, Suppurative																				4	22 3.0	
Parenchym Cell, Degeneration																				23	2.0	
Prostate																				6		
Prostate, Dorsal Lobe																				50		
Autolysis																				4	3.8	
Degeneration																				2	2.5	
Infiltration Cellular, Lymphocyte																				1	2.1	
Inflammation, Suppurative																				40	2.1	
Prostate, Ventral Lobe																				48		
Autolysis																				2	4.0	
Degeneration																				5	2.2	
Hyperplasia																				4	1.5	
Infiltration Cellular, Lymphocyte																				4	2.0	
Inflammation, Suppurative																				10	2.1	
Rete Testes																				46		
Dilatation																				3	2.0	

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:06

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate
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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:06

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/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	4	4	4	4	4	4	4	4	5	4	5	4	4	5	4	5	
		5	5	4	6	6	6	5	5	9	8	0	9	0	9	9	2	7	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9	
		3	3	4	6	6	7	7	7	8	9	2	5	8	9	9	0	0	2	
		3	4	3	8	9	0	2	3	5	7	5	7	7	0	1	1	6	1	
Lumbar, Hyperplasia, Lymphoid		3									3	2	4					3		7 2.9
Lumbar, Infiltration Cellular, Plasma Cell		3									4	3	3	4				4		10 3.4
Pancreatic, Hemorrhage											1									1 1.0
Pancreatic, Infiltration Cellular, Plasma Cell																		3		1 3.0
Pancreatic, Pigmentation											1									1 1.0
Renal, Degeneration, Cystic																	4			2 4.0
Renal, Fibrosis																	4			1 4.0
Renal, Hyperplasia, Lymphoid																				1 3.0
Renal, Infiltration Cellular, Plasma Cell																	4			2 4.0
Lymph Node, Mandibular		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Degeneration, Cystic																	2	3	2	4 2.8
Hyperplasia, Lymphoid		2									2						2	2	2	11 2.3
Infiltration Cellular, Plasma Cell		2				3	2		2	3	1		2				3	2	2	21 2.6
Lymph Node, Mesenteric		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Degeneration, Cystic																			2	2.5
Hyperplasia, Lymphoid										2							2		4	1.8
Infiltration Cellular, Plasma Cell						2	2												2	2.0
Inflammation, Granulomatous		1			1	3		2	1			2	1		2			3		22 1.7
Pigmentation																			1	4.0
Spleen		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Autolysis																			3	2.3
Depletion Lymphoid																			1	4.0
Hematopoietic Cell Proliferation		2				1					2		2				1	1	13	1.3

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:07

First Dose M/F: NA / NA

Lab: NCTR

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

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M ..Missing tissue

1-4 ..Lesion qualified as:

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

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																	
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 4 6 6 6 5 5 9 8 0 9 0 9 9 2 7 2 2 2																	
ANIMAL ID	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3 3 4 6 6 7 7 7 8 9 2 5 8 9 9 0 0 2 2 2																	
3 4 3 8 9 0 2 3 5 7 5 7 7 0 1 1 6 1 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2																	
*TOTALS																		3 2.3

Necrosis

2 2

Musculoskeletal System

Bone, Cranium

1

Bone, Femur

50

+ + + + + + + + + + + + + + + + + + + +

Nervous System

Brain, Brain Stem

48

+ + + + + + + + + + + + + + + + + + + +

4

1 4.0

2

4 2.3

Cyst

1

Hemorrhage

1 2.0

Brain, Cerebellum

48

+ + + + + + + + + + + + + + + + + + + +

Hydrocephalus

1 2.0

Brain, Cerebrum

48

+ + + + + + + + + + + + + + + + + + + +

Compression

1 2.0

Developmental Malformation

1

Ectopic Tissue

1

Gliosis

1 2.0

Hemorrhage

1 2.0

Hydrocephalus

3 2.0

Mineralization

1 2.0

Respiratory System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:08

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/CTL

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

+ ..Tissue examined microscopically

M ..Missing tissue

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X ..Lesion present

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Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

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CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:08

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 100PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | |
| | | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 5 | 9 | 8 | 0 | 9 | 0 | 9 | 9 | 2 | 7 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | |
| | | 3 | 3 | 4 | 6 | 6 | 7 | 7 | 7 | 8 | 9 | 2 | 5 | 8 | 9 | 9 | 0 | 0 | 2 | |
| | | 3 | 4 | 3 | 8 | 9 | 0 | 2 | 3 | 5 | 7 | 5 | 7 | 7 | 0 | 1 | 1 | 6 | 1 | |
| Lacrimal Gland | | + | + | + | + | + | | | | | | + | | | | | + | + | 12 | |
| Degeneration | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Ectopic Harderian | X | X | | X | X | | | | | | | X | | | | | X | X | | 12 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Urinary System | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Autolysis | | | | | | | | | | | | | | | | | | | 3 | 3.7 |
| Capsule, Fatty Change | | | | X | | | X | X | | | | | | | | | | | 4 | |
| Cortex, Cyst | X | X | | X | X | | X | | X | | X | | X | | X | | X | | 22 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | 1 | | | | | | | | | | 2 | 1.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 | | | | | | | 1 | 4.0 |
| Nephropathy, Chronic | 1 | 2 | | 1 | 3 | 2 | 2 | 2 | | 1 | | 2 | | 2 | 2 | 2 | 1 | 2 | 2 | 38 2.0 |
| Pelvis, Dilatation | | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Pelvis, Hyperplasia | | | | | 2 | | | 2 | | | | | | | | | | | 5 | 2.0 |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Renal Tubule, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Renal Tubule, Mineralization | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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- 2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:08

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F1 100PPM/CTL**

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

± ..Tissue examined microscopically

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Test Compound: Endocrine disruptor (Genistein)

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Time Report Requested: 17:34:08

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | |
| | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 4 | 3 | 4 | 4 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| | 0 | 3 | 8 | 0 | 4 | 4 | 8 | 8 | 9 | 0 | 3 | 4 | 7 | 7 | 8 | 1 | 2 | 2 | 2 | 2 | 7 | 8 | 0 | 0 | 3 | 3 | 3 |
| | 5 | 8 | 0 | 2 | 3 | 8 | 1 | 4 | 6 | 0 | 4 | 1 | 8 | 9 | 0 | 6 | 1 | 2 | 2 | 3 | 4 | 5 | 5 | 0 | 2 | 2 | 5 |
| | 5 | 8 | 0 | 2 | 3 | 8 | 1 | 4 | 6 | 0 | 4 | 1 | 8 | 9 | 0 | 6 | 1 | 2 | 2 | 3 | 4 | 5 | 5 | 0 | 2 | 2 | 5 |

Alimentary 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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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:10

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | |
| | 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 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Acinar Cell, Degeneration | | 1 | | 2 | | | | | | 1 | 1 | | | | | 1 | 3 | 1 | 2 | 4 | 2 | 1 | 3 | 4 | 2 |
| Autolysis | | 4 | 2 | | | | | | | | | | | | | | | | | | | | | 3 | 1 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Forestomach | A | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Glandular | A | A | + | + | + | + | + | + | A | + | + | A | + | + | M | + | + | + | + | + | + | + | + | + | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | | | | |

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Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:10

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 |
| | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 4 |
| Blood Vessel | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bacterium | | | | | | | | | | | | | | | | | | | | 4 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 4 |
| Myocardium, Necrosis | | | | | | | | | | | | | | | | | | | | 4 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | 4 |
| Endocrine System | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | A | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | M |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | X |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 4 |
| Atrophy | | | | | | | | | | | | | | | | | | | | 4 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | 2 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | 1 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | A | + | + | A | + | + | + | + | A | + | + | + | M | + | + | + | + | + | + | M |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 2 |
| Autolysis | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | + |

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CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:10

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | |
| | | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | |
| | | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 4 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | |
| | | 0 | 3 | 8 | 0 | 4 | 4 | 8 | 8 | 9 | 0 | 3 | 4 | 7 | 7 | 8 | 1 | 2 | 2 | 2 | 7 | 8 | 9 | |
| | | 5 | 8 | 0 | 2 | 3 | 8 | 1 | 4 | 6 | 0 | 4 | 1 | 8 | 9 | 0 | 6 | 1 | 2 | 3 | 4 | 5 | 0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | X | | | X | | | | |
| Pars Distalis, Cyst, Multiple | | | X | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | 2 | 1 | | | | | | | | | | | | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | |
| Thyroid Gland | | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | | |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | X | | | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | |
| Coagulating Gland | | A | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | 2 | | 4 | 2 | | | | | | | | | | | | 2 | | | | | | |
| Autolysis | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |
| Developmental Malformation | | | | | | | | | | | X | | | | | | | | | X | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Epididymis | | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration | | | | | | | | | | | | | | | | 3 | | 1 | | | 2 | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:11

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | |
| | | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | |
| | | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 4 | |
| Granuloma Sperm | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hypospermia | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | |
| Polyarteritis | | 0 | 3 | 8 | 0 | 4 | 4 | 8 | 8 | 9 | 0 | 3 | 4 | 7 | 7 | 8 | 1 | 2 | 2 | 2 | 7 | 8 | |
| Preputial Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Abscess | | 2 | 2 | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 2 | 2 | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Parenchym Cell, Degeneration | | 2 | 2 | 2 | 4 | 1 | 4 | | | | | | | | | | | | | | | | |
| Prostate | A | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal Lobe | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | 4 | 1 | 2 | 2 | 1 | 2 | 4 | | 2 | 4 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 4 | 4 | 3 |
| Prostate, Ventral Lobe | A | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

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

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:11

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | |
| | | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | |
| | | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 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 | |
| | | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | |
| | | 0 | 3 | 8 | 0 | 4 | 4 | 8 | 8 | 9 | 0 | 3 | 4 | 7 | 7 | 8 | 1 | 2 | 2 | 2 | 7 | 8 | |
| | | 5 | 8 | 0 | 2 | 3 | 8 | 1 | 4 | 6 | 0 | 4 | 1 | 8 | 9 | 0 | 6 | 1 | 2 | 3 | 4 | 5 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | |
| Rete Testes | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | | | | | | | | | | | | | | | | | | | | | | | |
| Interstit Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | |
| Erythroid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

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Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:12

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male
F1 500PPM/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 | | | | | | | |
| | | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | | | | | |
| | | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | | | | | | | |
| | | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 4 | | | | | | | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | |
| | | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | | | | | | | |
| | | 0 | 3 | 8 | 0 | 4 | 4 | 8 | 8 | 9 | 0 | 3 | 4 | 7 | 7 | 8 | 1 | 2 | 2 | 2 | 7 | 8 | 9 | | | | | | | |
| | | 5 | 8 | 0 | 2 | 3 | 8 | 1 | 4 | 6 | 0 | 4 | 1 | 8 | 9 | 0 | 6 | 1 | 2 | 3 | 4 | 8 | 0 | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | 3 | | 4 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | A | A | + | + | + | + | + | + | A | M | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | |
| Depletion Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation Erythrocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | 4 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

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Experiment Number: 99930-94

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CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 | |
| | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 4 | |
| Thymus | A | + | + | + | + | + | + | + | + | + | I | + | + | + | + | M | + | + | + | + | |
| Atrophy | | 4 | 4 | | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | I | A | I | + | + | + | + | + | A | I | + | + | + | + | + | + | + | + | + | + | |
| Alveolus, Hyperplasia | | | | | | | | | | | 3 | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 |
| Degeneration | | | | | | | | | | | | | | 3 | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | 4 | | | | | | | |
| Galactocele | | | | | | | | | | | | | | 4 | | | | | | | |
| Hyperplasia, Mast Cell | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | 4 | | | | | | | |
| Lactation | | | | | | | | | | | | | | 2 | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst Epithelial Inclusion | X | | | | | | | | | | | | | | | | | | | | X |
| Dermis, Fibrosis | | | | | | | | | | | | | | | | | | | | | |
| Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | | | | 3 | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 3 | | 4 | | | | | | | | | | | | | | 4 | 4 | 4 | | |
| Inflammation, Suppurative | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | | | | | | | 4 | 4 | 4 | | |
| Necrosis | | 3 | 2 | 2 | | | | | | | | | | | | | 3 | | | 4 | 4 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Time Report Requested: 17:34:13

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 |
| | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 4 | 3 | 6 | 8 | 7 | 7 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| | 9 | 4 | 8 | 8 | 4 | 5 | 8 | 9 | 5 | 1 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 4 | 4 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | X | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 4 |
| Nervous System | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | A | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | | | | | | | | | | | | | | | | | | | | | 2 |
| Brain, Cerebellum | A | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | A | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | | | 1 |
| Meninges, Fibrosis | | | | | | | | | | | | | | | | | | | | | 2 |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | |
| Lung | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | 1 |
| Autolysis | 3 | 3 | | | | | | | | | | | | | | | | | | | 2 |
| Congestion | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Histiocyte | 2 | 2 | | | 1 | 2 | | 1 | | | | | | | | | 2 | 1 | 2 | 2 | 1 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | 2 |
| Nose | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | + |

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

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Time Report Requested: 17:34:13

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Test Compound: Endocrine disruptor (Genistein)
CAS Number: 446-72-0

Date Report Requested: 10/22/2014
 Time Report Requested: 17:34:14
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F1 500PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | 5 |
| | | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 9 | 3 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | | 3 | 3 | 7 | 8 | 8 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 6 | 6 | 8 | 8 | 0 | 2 |
| | | 8 | 9 | 1 | 6 | 7 | 0 | 1 | 2 | 4 | 3 | 8 | 9 | 4 | 5 | 8 | 9 | 4 | 4 |

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Autolysis | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 39 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Angiectasis | | | | | | | | | | | | | | | | | | | 7 1.9 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | 1 |
| Bile Duct, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | 13 1.2 |
| Biliar Tract, Fibrosis | | 1 | | | | | | | | | | | | | | | | | 9 1.0 |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Cyst | | | | | | | | | | | | | | | | | | | 1 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:14

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | |
| | | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | | 3 | 3 | 7 | 8 | 8 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 6 | 6 | 8 | 8 | 0 | 2 | 2 |
| | | 8 | 9 | 1 | 6 | 7 | 0 | 1 | 2 | 4 | 3 | 8 | 9 | 4 | 5 | 8 | 9 | 4 | 4 | 5 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | 1 | | 2 | 1.5 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | 1 | |
| Eosinophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | 2 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | 2 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | 1 | 7 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 1 | 10 | 1.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | 1 | |
| Necrosis | | | | | | | | | | | | | | | | | | 1 | 4 | 1.0 |
| Vacuolization Cytoplasmic | 1 | | | | | | | | | | | | | | | | | | 4 | 1.5 |
| Mesentery | | | | | | | | | | | | | | | | | | 1 | | |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Acinar Cell, Degeneration | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 30 | 1.9 | |
| Autolysis | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Polyarteritis | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male
F1 500PPM/CTL**

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|-----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---------|
| | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | |
| | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Bacterium | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Cardiomyopathy | 1 | | | | | | | | | | | | | | | | 16 | 1.3 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Myocardium, Necrosis | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Thrombosis | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Endocrine System | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | 1 | |
| Angiectasis | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Atrophy | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | 7 | 2.1 | |
| Hyperplasia | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Hypertrophy | | | | | | | | | | | | | | | | | 3 | 2.7 | |
| Pigmentation | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Vacuolization Cytoplasmic | | | | 2 | 1 | | 1 | | 1 | | | | 1 | | 2 | | 2 | 17 | 1.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Hemorrhage | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Autolysis | | | | | | | | | | | | | | | | | 1 | 4.0 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:15

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | |
| | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | |
| Hyperplasia | 1 | | | | | | | | | | | | 1 | 1 | 1 | 1 | 3 | 1 | 23 1.2 |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hyperplasia | | | | | | | | | | | | | 2 | | 2 | | 2 | | 6 2.2 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Pars Distalis, Cyst | X | | | | | | | | | | | | | | | | | X | 4 |
| Pars Distalis, Cyst, Multiple | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Hyperplasia | 1 | 3 | 3 | | | | 3 | | 2 | 3 | | 2 | | | 3 | | | | 20 2.4 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| C Cell, Hyperplasia | | | | | | | 2 | | 1 | 1 | | | | | | | | | 5 1.6 |
| Cyst, Squamous | X | | | | | | | | | | | | | | | | | | 2 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Atrophy | | | | | | | | | | | | | | | | | | 5 | 2.4 |
| Autolysis | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Degeneration | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Developmental Malformation | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Degeneration | | | | | | | | | | | | | | | | | | 5 | 2.0 |

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

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

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Granuloma Sperm | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Hypospermia | | | | | | | | | | | | | | | | | | 4 | 4.0 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Abscess | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Atrophy | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | 6 | 3.5 | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | | | 1 | | 2 | | | | | | | | | 15 | 1.4 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | 16 | 3.3 | |
| Parenchym Cell, Degeneration | | 1 | 1 | | | | | | 1 | | | | | | | | | 16 | 2.0 | |
| Prostate | | | | | | | | | | | | | | | | | | 3 | | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Autolysis | | | | | | | | | | | | | | | | | | 2 | 2.5 | |
| Cyst | | | | | | | X | | X | | | | | | | | | 2 | | |
| Degeneration | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Suppurative | 2 | 2 | 3 | | 1 | 4 | 2 | 1 | | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 40 | 2.1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Autolysis | | | | | | | | | | | | | | | | | | 2 | 2.5 | |
| Degeneration | | | | | | | | | | | | | | | | | | 9 | 2.6 | |
| Hyperplasia | | | | | 1 | | | | | 1 | | 1 | | | | | | 11 | 1.6 | |

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

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Lab: NCTR

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F1 500PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | | |
| | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | 1 | 4 1.0 |
| Inflammation, Suppurative | 1 | 2 | | | | | | | | | | | | | | | | | 1 | 7 1.3 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Dilatation | 3 | | | | | | | | | | | | | | | | | | 3 | 3 3.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Atrophy | | | | | | | | | | | | | | | | | | | 9 | 2.6 |
| Autolysis | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Dilatation | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Interstit Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Seminif Tub, Degeneration | 4 | 1 | 2 | 3 | 1 | | | | 1 | 1 | | | 1 | 1 | | | 4 | 4 | 26 1.8 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Erythroid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Hypocellularity | | | | | | | | | | | | | | | | | | | 2 | 2.5 |
| Myeloid Cell, Hyperplasia | 2 | 2 | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | 9 | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | 3 | | | | | | | | | | 3 | 3.0 |

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

+ ..Tissue examined microscopically

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:16

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 500PPM/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 | 7 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 |
| 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | 2 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| 3 | 3 | 7 | 8 | 8 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 6 | 6 | 8 | 8 | 0 | 2 | 2 | 2 |
| 8 | 9 | 1 | 6 | 7 | 0 | 1 | 2 | 4 | 3 | 8 | 9 | 4 | 5 | 8 | 9 | 4 | 4 | 5 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | 4 | | | | | | | | | | | | | | 5 3.6 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Degeneration, Cystic | 2 | 2 | | | 4 | | | | 2 | | | | | | | | | | 6 2.3 |
| Hyperplasia, Lymphoid | 2 | | | | 1 | 2 | 2 | | 1 | | | | | | | | | | 20 2.1 |
| Infiltration Cellular, Plasma Cell | 2 | 3 | | | 4 | 2 | | 2 | | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 28 2.7 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Degeneration, Cystic | | | | | | 4 | | | | | | | | | | | | | 4 2.8 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | 2 | 2 | 2 | | | | | 2 | 2 | | | | | | | | | | 14 1.9 |
| Infiltration Cellular, Mast Cell | | | | | | | | 2 | | | 2 | | | | | | | | 5 2.2 |
| Infiltration Cellular, Plasma Cell | | 2 | | | | | | | 2 | | | | | | | | | | 3 2.3 |
| Inflammation, Granulomatous | 2 | | 1 | | | | | 1 | | 1 | 2 | 1 | 2 | | 2 | 1 | | | 16 1.5 |
| Pigmentation | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Depletion Lymphoid | | | | | | | | | | | | | | | | | | | 3 3.7 |
| Hematopoietic Cell Proliferation | | | | | | 2 | | 2 | | | | | | | | | | | 11 2.2 |
| Hematopoietic Cell Proliferation Erythrocytic | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Hyperplasia, Stromal | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |
| Pigmentation | 2 | | 4 | 2 | 1 | | | 2 | 1 | | 4 | 1 | 2 | 4 | 3 | 2 | | | 28 2.3 |

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

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M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

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CD Rat Male
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|-------------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| | | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | |
| | | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | | 3 | 3 | 7 | 8 | 8 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 6 | 6 | 8 | 8 | 0 | 2 | 2 |
| | | 8 | 9 | 1 | 6 | 7 | 0 | 1 | 2 | 4 | 3 | 8 | 9 | 4 | 5 | 8 | 9 | 4 | 4 | 5 |
| Thymus | | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 45 |
| Atrophy | | 4 | 4 | | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 44 3.9 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | 9 1.4 |
| Degeneration | | 3 | 2 | | 2 | 3 | | 4 | | 2 | | 4 | 4 | 2 | | 4 | 3 | 2 | | 20 2.8 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Galactocele | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hyperplasia, Mast Cell | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lactation | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | 2 |
| Dermis, Fibrosis | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epidermis, Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | 2 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hyperkeratosis | | 2 | | | | | | | | | | | | | | | | | | 3 2.7 |
| Inflammation, Chronic | | | 2 | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | 3 | | | | | | | | | | | | | | | | 6 3.3 |
| Inflammation, Suppurative | | | | | 4 | 2 | 4 | 3 | | 4 | | | | | | | | | | 22 3.9 |
| Necrosis | | | | | | | | | | | | | | 2 | | | | | | 6 2.7 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | |

* ..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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|-----------------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
| | | 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 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 |
| | 4 | 4 | 5 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 3 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | |
| | 3 | 3 | 7 | 8 | 8 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 6 | 6 | 8 | 8 | 0 | 2 | 2 | |
| | 8 | 9 | 1 | 6 | 7 | 0 | 1 | 2 | 4 | 3 | 8 | 9 | 4 | 5 | 8 | 9 | 4 | 4 | 5 | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | 2 | |
| Cyst | | | | | | | | | | | | | | | | | | | 1 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Nervous System | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Compression | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Meninges, Fibrosis | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Respiratory System | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | 5 | 1.4 |
| Autolysis | | | | | | | | | | | | | | | | | | | 3 | 2.7 |
| Congestion | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | 21 | 1.6 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Cyst | | | | | | | | | | | | | | | | | | | 1 | |

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

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

Inflammation, Suppurative

1 1.0

Trachea

48

Cyst, Squamous

1

Special Senses System

Ear

1

Eye

40

Bilateral, Retina, Atrophy

1 1.0

Inflammation, Suppurative

1 3.0

Retina, Atrophy

1 2.0

Harderian Gland

41

Degeneration

1 1.0

Infiltration Cellular, Lymphocyte

6 1.0

Lacrimal Gland

5

Ectopic Harderian

5

Urinary System

Kidney

49

Autolysis

3 3.3

Capsule, Fatty Change

X

3

Cortex, Cyst

24

Fibrosis

1 1.0

Infiltration Cellular, Lymphocyte

3 1.3

Nephropathy, Chronic

40 1.7

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

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Pelvis, Dilatation | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pelvis, Hyperplasia | | | | | | | | | | | | | | | | | | | 4 1.5 |
| Renal Tubule, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Mineralization | 1 | | | | | | | | | | | | | | | | | 2 | 2 1.5 |
| Urethra | | | | | | | | | | | | | | | | | | | 2 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Dilatation | | | | | | | | | | | | | | | | | | | 2 4.0 |

END OF MALE DATA

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

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| CD Rat Female
F1 0PPM | 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 |
| | | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 |
| | | 2 | 3 | 6 | 2 | 3 | 1 | 1 | 8 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 5 | 6 | 9 | 9 |
| | | 4 | 1 | 7 | 5 | 6 | 4 | 4 | 3 | 7 | 5 | 2 | 8 | 6 | 6 | 6 | 8 | 6 | 4 | 9 | 8 | 8 |
| Mesentery | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | 4 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 4 | 4 |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 2 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | 2 | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 1 | | |
| Degeneration, Cystic | | | 1 | 2 | | 2 | 4 | | 2 | 4 | 2 | | 1 | 3 | | 4 | 3 | 2 | 1 | 2 | 3 | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 1 | 2 | 2 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | | 1 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1 |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 1 | | |

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F1 0PPM | 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 |
| | | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | | 2 | 3 | 6 | 2 | 3 | 1 | 1 | 8 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 5 | 6 | 9 |
| | | 4 | 1 | 7 | 5 | 6 | 4 | 4 | 3 | 7 | 5 | 2 | 8 | 6 | 6 | 6 | 8 | 6 | 4 | 9 | 8 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + |
| Hyperplasia, Diffuse | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | X |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | 1 |
| General Body System | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Duct, Dilatation | | | | | | | | | 3 | 3 | | | | | | | | | | | 3 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation | | | | | | | | | 3 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 2 |
| Parenchym Cell, Degeneration | | | | | | | 1 | 3 | | | | 2 | 4 | | | | | | | | 3 |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 3 |
| Cyst | | | | | | | | | | | | | | X | | X | X | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:19

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | 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 |
| | | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 |
| | | 2 | 3 | 6 | 2 | 3 | 1 | 1 | 8 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 5 | 6 | 9 | 9 | 1 | 1 |
| | | 4 | 1 | 7 | 5 | 6 | 4 | 4 | 3 | 7 | 5 | 2 | 8 | 6 | 6 | 6 | 8 | 6 | 4 | 9 | 8 | 8 | 0 | 5 |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cervix, Muscularis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | 3 | 2 | | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 1 |

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

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | 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 | |
| | | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | | 2 | 3 | 6 | 2 | 3 | 1 | 1 | 8 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 5 | 6 | 9 | |
| | | 4 | 1 | 7 | 5 | 6 | 4 | 4 | 3 | 7 | 5 | 2 | 8 | 6 | 6 | 6 | 8 | 6 | 4 | 9 | 8 | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation, Granulomatous | | | 2 | 1 | | | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | | 3 | 3 | | | 3 | 3 | | | 2 | | | 2 | 1 | | | | 3 | | 3 | 2 | 1 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | 2 | | | | 2 | 2 | | 1 | | | | 3 | 3 | 3 | | | 2 | 2 |
| Thymus | | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | |
| Atrophy | | | | | | | | | 1 | 2 | | | | | | 2 | | 1 | 1 | | 1 | 2 |
| Cyst | | | | | | | | | | | | | | | | | | | | 1 | | 1 |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolus, Hyperplasia | | | | | | | | | 3 | | | | | | | | 2 | | | 3 | 1 | 1 |
| Atypical Focus | | | | | | | | | | | | | | | | X | | X | | X | X | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | 3 | |
| Lactation | | | | | 2 | | | | | 3 | 1 | | 2 | 1 | | 1 | 2 | 2 | 1 | 2 | 1 | 1 |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Foot, Inflammation, Chronic | | | | | | | | | 1 | | | | | | | 1 | 2 | 3 | 1 | 4 | 3 | 3 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperostosis | | | | | | | | | | | | | | | | 2 | | | | | | |

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

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Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:19

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 0PPM

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

Nervous System

Respiratory System

Special Senses System

| | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + |
| Bilateral, Retina, Degeneration | | | | | | | | 3 |
| Lens, Unilateral, Cataract | 4 | | | | | | | |
| Retina, Degeneration | | | | | | | | |
| Retina, Unilateral, Degeneration | | 3 | | | | | | |
| Harderian Gland | | | + | + | + | + | + | + |
| Epithelium, Degeneration | | | | 1 | | | | |

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

± ..Tissue examined microscopically

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Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:20

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 8 9 8 8 0 0 0 3 3 3 4 4 6 6 5 8 8 8 8 8 2 2 2 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 5 5 5 6 6 6 6 6 6 7 7 7 7 7 7 8 8 8 8 8 9 9 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 5 5 5 1 1 1 4 4 9 1 2 4 5 5 5 1 2 3 6 6 7 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 0 2 9 1 2 3 6 7 0 0 3 6 6 9 9 0 6 8 0 0 1 1 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 30 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 53 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 53 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 |
| Basophilic Focus | X | X | | | | | | | | | | | | | | | | | | | 4 |
| Bile Duct, Hyperplasia | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 22 | 1.3 |
| Biliar Tract, Fibrosis | | | | | | | | | | | | | | | | | | | | 1 | 1.3 |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | 1 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hematopoietic Cell Proliferation | 1 | | | | | | | | | | | | | | | | | | | 6 | 1.2 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Lymphocyte | | 1 | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 4 | 1.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 5 | 1.2 |

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F1 0PPM | 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 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 8 | 9 | 8 | 8 | 0 | 0 | 0 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 5 | 8 | 8 | 8 | 8 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | | 2 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 4 | 4 | 9 | 1 | 2 | 4 | 5 | 5 | 1 | 2 | 3 | 6 | |
| | | 7 | 0 | 2 | 9 | 1 | 2 | 3 | 6 | 7 | 0 | 0 | 3 | 6 | 6 | 9 | 9 | 0 | 6 | 8 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | + 1 | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Acinar Cell, Degeneration | | | 2 | | | 1 | 2 | | 1 | | 1 | 1 | 2 | | | | | | | | 1 | 21 1.4 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | 3 1.7 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | 1 | 1 2.0 | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 53 | |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Cardiomyopathy | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 26 1.0 | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 1 | 3 1.0 | |
| Degeneration, Cystic | | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 45 2.0 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Hyperplasia | | 1 | 1 | | | | | | | | | | 1 | 1 | | | | | | | 11 1.3 | |
| Hypertrophy | | | 2 | | | 2 | | | | | | | 3 | | | | | | | 3 | 16 1.8 | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Hyperplasia, Focal | | | | | | | | | | | | | 1 | | | | | | | 2 | 3 1.3 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1) Minimal 3) Moderate

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:20

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | 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 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 8 | 9 | 8 | 8 | 0 | 0 | 0 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 5 | 8 | 8 | 8 | 8 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | | 2 | 5 | 5 | 5 | 1 | 1 | 1 | 4 | 4 | 9 | 1 | 2 | 4 | 5 | 5 | 1 | 2 | 3 | 6 | 7 | |
| | | 7 | 0 | 2 | 9 | 1 | 2 | 3 | 6 | 7 | 0 | 0 | 3 | 6 | 6 | 9 | 9 | 0 | 6 | 8 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | |
| *TOTALS | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Parathyroid Gland | | M | + | + | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | M | 46 |
| Hyperplasia, Diffuse | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 5 2.2 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | 5 1.2 |
| General Body System | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | 7 2.9 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | 32 1.9 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | 5 2.6 |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Atrophy | | 3 | 3 | 4 | 2 | 3 | 3 | 1 | | 2 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 3 | 34 2.5 |
| Cyst | | | | | | | | | X | X | | | X | | X | X | X | | X | | | 11 |

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 OPPM | 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 | | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 8 | 9 | 8 | 8 | 0 | 0 | 0 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 5 | 8 | 8 | 8 | 8 | 2 | | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | | |
| | | 2 | 5 | 5 | 5 | 1 | 1 | 1 | 4 | 4 | 9 | 1 | 2 | 4 | 5 | 5 | 1 | 2 | 3 | 6 | 7 | | |
| | | 7 | 0 | 2 | 9 | 1 | 2 | 3 | 6 | 7 | 0 | 0 | 3 | 6 | 9 | 9 | 0 | 6 | 8 | 0 | 1 | | |
| *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | | 2 | 1 | 1 | | | | 3 | | 2 | | 2 | 3 | | 1 | | | 2 | 2 | 1 | | 25 1.8 | |
| Oviduct | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | |
| Cervix, Muscularis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | X 1 | | |
| Hyperplasia, Cystic | | 2 | | 1 | 1 | 2 | 2 | 3 | | | | | 2 | | 1 | 1 | | 2 | | | 16 1.8 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | | 4 1.8 | | |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | |
| Inflammation | | | | | | | | | | | | | 2 | | | | | | | | 4 1.5 | | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | | 2 2.0 | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | 2 3.0 | | |
| Lymph Node | | | | | | | | | + | + | | | + | + | | | | | | + | 11 | | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | 4 | | | 2 | | | | | | | 4 2.8 | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | 2 | | | 3 | 2 | | | | | | | | | 6 2.2 | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 53 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Infiltration Cellular, Plasma Cell | | 2 | | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 41 1.8 | | |

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

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| | | 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 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Inflammation, Granulomatous | | 2 | 1 | 2 | | | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 44 1.5 |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Hematopoietic Cell Proliferation | | | | | | | 1 | 1 | 2 | | | | | | | | | | | | | 15 2.1 | |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Pigmentation | | 2 | 2 | 2 | 2 | 2 | 3 | 1 | | | 1 | | 1 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 31 1.9 |
| Thymus | | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | | | | | | | | 1 | | | 1 | | | | | | | | | | | 9 1.3 | |
| Cyst | | 2 | 2 | | 2 | | | 1 | | 1 | 1 | | | 2 | 1 | | 1 | 2 | | 1 | | | 15 1.3 |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Alveolus, Hyperplasia | | 1 | | | | | | 3 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | 13 1.5 |
| Atypical Focus | | | | | | | X | X | | | X | X | | X | X | X | | | | | | | 13 |
| Galactocele | | | | | | | 1 | | | | | | | | | | | | | | | | 3 2.3 |
| Lactation | | 2 | 1 | 1 | 1 | 1 | | 2 | | 2 | 2 | 1 | 2 | | 2 | 1 | 1 | 2 | 1 | 2 | | 30 1.6 | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Foot, Inflammation, Chronic | | 3 | 1 | 2 | 1 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 36 2.4 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Hyperostosis | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |

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

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 0PPM | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 8 9 8 8 0 0 0 3 3 3 4 4 6 6 5 8 8 8 8 8 2 2 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 5 5 5 6 6 6 6 6 6 7 7 7 7 7 7 8 8 8 8 8 9 9 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 5 5 5 1 1 1 4 4 9 1 2 4 5 5 5 1 2 3 6 6 7 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 0 2 9 1 2 3 6 7 0 0 3 6 6 9 9 0 6 8 0 0 1 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*TOTALS

Nervous System

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Compression | 2 | 2 | 1 | 2 | | | | | | | | | | | | | | | | | 19 | 1.9 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 53 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |

Respiratory System

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Infiltration Cellular, Histiocyte | 1 | | 2 | 2 | | | | | | | | | | | | | | | | | 9 | 1.4 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |
| Nasolacrim Dct, Inflammation | | | | | | | | | | | | | | | | | | | | 7 | 1.6 | |
| Upper Molar, Inflammation | | | | | | | | | | | | | | | | | | | | 1 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | |

Special Senses System

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 | |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | | | | | 2 | 3 | | | 3 | 2.7 |
| Lens, Unilateral, Cataract | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Retina, Unilateral, Degeneration | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 30 | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 6 | 1.0 |

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+ ..Tissue examined microscopically

M ..Missing tissue

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| CD Rat Female
F1 0PPM | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|----|-----|-----|--------|
| | | 7 | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 3 3 3 3 4 5 5 5 5 | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 9 8 8 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | *TOTALS | | | | |
| | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | | |
| Hypertrophy | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 | |
| Cyst | X | X | | | X | X | | | X | X | | | X | | | | | | | | X | 14 | | |
| Epithelium, Pelvis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Nephropathy | 1 | | 1 | | | | | | | | | | | | | | | | | | | 13 | 1.2 | |
| Pelvis, Mineralization | | | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 16 | 1.2 | |
| Renal Tubule, Mineralization | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | 1 | 2 | | | | | | | | 2 | 2 | 38 1.5 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 54 | | | |

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:22

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | | |
| 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | | |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 3 | 5 | 6 | 9 | 9 | 0 | 2 | | |
| | | 8 | 4 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | 1 | 4 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium Rgt, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

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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 | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | |
| 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 3 | 5 | 6 | 9 | 9 | 0 | 5 | |
| | | 8 | 4 | 3 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | |
| Hematopoietic Cell Proliferation | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Eosinophil | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | | + | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | M | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | | + | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | | + | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | + | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | | 2 | | | | | | | | | | | | | | | | | | | | | |
| C Cell, Hyperplasia | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Squamous | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cel, Atrophy | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cel, Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | | | | | | | | | | | | | | | | | | | | | |

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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 | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | |
| 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 6 | 4 | 4 | 5 | 6 | 5 | 6 | |
| | | 8 | 4 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | 1 | |
| Duct, Dilatation | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | |
| Cyst | | | | | | | X | | | | | X | X | | | | | | X | X | | X | |
| Hyperplasia, Stromal | | | | | | | | 1 | | | | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cervix, Muscularis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Cystic | 2 | 1 | 2 | 3 | | | | | 1 | | | 2 | | | | 1 | 2 | | | 3 | 2 | 1 | 1 |
| Metaplasia | | | | | | | | | | | | 2 | | | | | | | | | | | 2 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation | 2 | | | | | | | | 2 | | | | | | | | | 2 | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hypocellularity | | | | | | | | | | | | | | | | | | 3 | | | | | |
| Lymph Node | | | | | | | + | | | | | | | | | | | | + | + | | + | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 2 | 2 | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 3 | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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|--|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | | 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 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1 | |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Infiltration Cellular, Plasma Cell | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Inflammation, Granulomatous | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | | 2 | | | | | | | | | 3 | | | | | | 1 | | 2 | 3 | | | |
| Lymphocyte, Atrophy | | | 1 | | | 2 | | | | | | | | | | | | | | | | | |
| Pigmentation | | | 3 | 2 | 3 | 1 | | 1 | | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | |
| Thymus | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | M | + | + | + | M | M | |
| Atrophy | | 1 | 2 | | | 2 | | | | 2 | 2 | 2 | | | | | 2 | | | | | | |
| Cyst | | | | | 2 | 3 | | | 2 | | | | | | | | 1 | 1 | | | | 1 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

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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 | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | 3 |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 3 | 5 | 6 | 9 | 9 | 0 | 2 | 4 |
| | | 8 | 4 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | 1 | 4 |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | |
| Lactation | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Foot, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | 2 | 1 | | | | | | | | | | | | | | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

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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 | | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 3 | 3 | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | 0 | |
| Special Senses System | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 3 | 5 | 6 | 9 | 9 | 0 | 2 | 4 | |
| | | 8 | 4 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | 1 | 4 | |
| Nasolacrim Dct, Inflammation | | 2 | | 2 | | 1 | | | | | | | | | | | | | | | | | | |
| Upper Molar, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Lens, Cataract | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | | | | + | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Cyst | | | | | | | | X | X | X | X | X | X | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nephropathy | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pelvis, Mineralization | | 1 | | 1 | 2 | 1 | | 2 | | | | | | | 1 | 2 | 1 | 2 | | 1 | 1 | 2 | 1 | |
| Renal Tubule, Mineralization | | 2 | 1 | 1 | 1 | 2 | 2 | 1 | | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 1 | |
| Urinary Bladder | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:24

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | | |
| | | 1 | 2 | 5 | 6 | 6 | 7 | 9 | 0 | 2 | 2 | 2 | 3 | 4 | 5 | 7 | 8 | 8 | 0 | 1 | 1 | 1 | 3 | 3 | 3 | 4 | | | |
| | | 1 | 8 | 1 | 0 | 7 | 8 | 7 | 5 | 0 | 8 | 5 | 1 | 0 | 6 | 0 | 1 | 6 | 8 | 0 | 0 | 6 | 0 | 7 | 6 | 7 | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 6 | |
| | | 1 | 3 | 5 | 6 | 7 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 0 | 3 | 5 | 6 | 9 | 9 | 0 | 2 | 4 | 8 | 8 | 9 | 3 | 4 | 4 |
| | | 8 | 4 | 3 | 3 | 8 | 4 | 1 | 0 | 7 | 4 | 0 | 8 | 0 | 6 | 4 | 4 | 0 | 5 | 7 | 6 | 1 | 4 | 5 | 6 | 7 | 9 | 2 | 3 |

Hyperplasia

1

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

+ ..Tissue examined microscopically

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| CD Rat Female
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|---------------------------------------|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 7 | | | | | | | | | | | | | | | | | | |
| | | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 | | | | | | | | | | | | | | | | | | |
| | | 9 9 9 9 4 3 2 3 3 4 4 4 4 4 4 4 5 5 5 5 | | | | | | | | | | | | | | | | | | |
| | | 0 | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | 0 | | | | | | | | | | | | | | | | | | |
| 7 8 9 0 0 2 2 3 4 1 2 1 2 4 7 8 7 8 9 | | 6 6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 9 9 9 9 | | | | | | | | | | | | | | | | | | |
| *TOTALS | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Basophilic Focus | X | X | | | | | | | | | | | | | | | | | 7 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | 13 1.3 |
| Biliar Tract, Fibrosis | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Congestion | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Developmental Malformation | | | | | | | | | | | | | | | | | | | 2 |
| Eosinophilic Focus | | | | | | | X | | | | | | | | | | | | 4 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic Active | 1 | 1 | | | | | | | | | | | | | | | | | 3 1.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | 1 2.0 |

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+ ..Tissue examined microscopically

M ..Missing tissue

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Lab: NCTR

| CD Rat Female
F1 5PPM | 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 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 9 | 9 | 9 | 9 | 4 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 0 | 0 | |
| | | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 | 9 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 3 1.7 |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | 2 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinar Cell, Degeneration | 2 | 4 | 1 | | 1 | | | | 2 | 2 | | | | | | | | | | 13 1.9 |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mineralization | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrium Rgt, Dilatation | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cardiomyopathy | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | | 1 | | 1 | 1 | 3 | 2 | 1 | | 30 1.2 |
| Endocrine System | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Atrophy | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Degeneration, Cystic | 1 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 4 | 2 | 45 1.8 |

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

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM | 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 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 0 | 0 | |
| | | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 | 9 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia | | 1 | | 1 | | | | 1 | 1 | 2 | 2 | | 2 | 1 | | 1 | 1 | 1 | | 18 1.3 |
| Hypertrophy | | 2 | | 4 | | 3 | 3 | | 4 | | | | | | | | | | | 16 2.3 |
| Adrenal Medulla | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hyperplasia, Focal | | | | | | | | | | 2 | | 1 | 1 | | | | | | | 3 1.3 |
| Infiltration Cellular, Eosinophil | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Parathyroid Gland | | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | 46 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | | | | | | | | | | | | | | X | | | 2 |
| Pars Distalis, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | 6 1.5 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C Cell, Hyperplasia | | | | | | | | | | | | | 1 | | | | | | | 1 1.0 |
| Cyst, Squamous | | | | | | 2 | | | | | | 1 | | | | | | | | 4 1.3 |
| Follicular Cel, Atrophy | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Follicular Cel, Hyperplasia | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 |
| General Body System | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

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| CD Rat Female
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|---------------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---------|-----|
| | | 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 | | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | | |
| | | 9 | 9 | 9 | 9 | 4 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | | |
| | | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 0 | 0 | | |
| | | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 | 9 | |
| Duct, Dilatation | | | | | 2 | | | | | 2 | | | | | | | | 9 | 2.7 | | |
| Hyperplasia | | | | | | | | | | 2 | | | | | | | | 3 | 1.7 | | |
| Inflammation | 1 | 2 | 1 | 1 | | 2 | | 1 | 2 | 1 | | 2 | | | | | | 28 | 1.8 | | |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | 3 | 2.3 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | 2 | 1 | 3 | 2 | | 2 | | | 2 | 1 | | | 3 | 2 | 3 | 2 | 2 | | 32 | 2.3 | |
| Cyst | X | | X | X | | | X | | X | X | | | | | | | | | 12 | | |
| Hyperplasia, Stromal | 3 | 1 | 1 | 1 | 1 | | 2 | 1 | | | | | | | | | | | 19 | 1.6 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cervix, Muscularis, Hypertrophy | | | | | | X | | | | | | | | | | | | | 1 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Hyperplasia, Cystic | 1 | | 3 | 2 | 1 | 3 | 2 | | 1 | | 1 | | | 1 | | 1 | 1 | 3 | 24 | 1.7 | |
| Metaplasia | | | | | | | | | | | | | | | | | | 1 | 2 | 5 | 1.8 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | 3 | 2.0 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Lymph Node | | | | | + | | | | + | | | | M | | | | + | 10 | | | |
| Lumbar, Degeneration, Cystic | | | | | 2 | | | | | | | | 1 | | | | | | 4 | 1.8 | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |

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

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|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| | | 7 | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 9 9 9 9 4 3 2 3 3 4 4 4 4 4 5 5 5 5 2 2 2 2 | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 9 9 9 9 | | | | | | | | | | | | | | | | | |
| | 7 8 9 0 0 2 2 3 4 1 2 1 2 4 7 8 7 8 7 8 9 | | | | | | | | | | | | | | | | | | | |
| *TOTALS | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | 2 | | | 2 | | | | | | | | | | | | | | 6 | 2.0 |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Infiltration Cellular, Plasma Cell | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | | 2 | 2 | 2 | 1 | 2 | 2 | | | 1 | 40 | 1.8 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hyperplasia, Lymphoid | | 3 | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Inflammation, Granulomatous | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | | 2 | 2 | 1 | 42 | 1.7 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hematopoietic Cell Proliferation | | | | | | 1 | | | | | | | | | | 1 | 2 | 1 | 9 | 1.8 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Pigmentation | 2 | | | | 2 | 2 | | | 1 | | 1 | 1 | | | 1 | 2 | 1 | 2 | 26 | 1.7 |
| Thymus | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 | |
| Atrophy | | | | | | | | | | | | | | | | | | | 7 | 1.9 |
| Cyst | | | | | | 1 | | | | | | | | | 1 | 2 | 2 | | 10 | 1.6 |
| Epithel Cell, Hyperplasia | | | | | | | 1 | | | | | | | | | | | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:26

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM | 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 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 9 | 9 | 9 | 9 | 4 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 0 | 0 | |
| | | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 | 9 |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolus, Hyperplasia | | 1 | | | | 1 | | | | 1 | 1 | 2 | 1 | | | | | | | 11 1.5 |
| Atypical Focus | | | | | | | | | | | | | | X | | | | | | 4 |
| Galactocele | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lactation | | 2 | | 1 | 2 | 1 | 1 | | 2 | 2 | 1 | 2 | 1 | | 1 | 1 | 2 | 1 | 1 | 31 1.4 |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Foot, Inflammation, Chronic | | 4 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 34 2.6 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | 1 |
| Nervous System | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | | | | | | | | | 2 | 2 | 2 | | | | | | | | | 18 1.8 |
| Brain, Cerebellum | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Respiratory System | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | 17 1.7 |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

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

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Experiment Number: 99930-94

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Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:26

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM | 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 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | | |
| | | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 5 | 0 | 0 | | |
| | | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 | 9 | |
| Nasolacrim Dct, Inflammation | | | | | | 2 | | | | 3 | 1 | | | | | | | | | 7 | 1.7 |
| Upper Molar, Inflammation | | | | | | | | | | X | | | | | | | | | | 1 | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 | |
| Bilateral, Lens, Cataract | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Bilateral, Retina, Degeneration | | | | | | 3 | 1 | | | | | | | | | | | | | 3 | 2.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 34 | |
| Epithelium, Degeneration | | 1 | 1 | 2 | 2 | 1 | | | 2 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 20 | 1.3 |
| Hypertrophy | | | | | | | | | 1 | | 1 | | | | | | | | 1 | 3 | 1.0 |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | 1 | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Urinary System | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Cyst | | | | | | X | X | | | X | | | | X | | X | X | | | 17 | |
| Infarct | | | | | | | | | 1 | | | | | | | | 1 | | | 3 | 1.0 |
| Nephropathy | | 1 | 1 | | | | | | | | | | | | 1 | | | | 1 | 10 | 1.7 |
| Pelvis, Mineralization | | | | | | | | 1 | 1 | 1 | | | | | 1 | | | 2 | 20 | 1.4 | |
| Renal Tubule, Mineralization | | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | | 1 | 1 | 2 | 1 | 2 | 3 | 37 | 1.6 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

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

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M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:26

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM

| DAY ON TEST | Hyperplasia | | | | | | | | | | | | | | | | | |
|-------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 9 | 9 | 9 | 9 | 4 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 2 | 2 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 |
| | 0 | 0 | 0 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 2 | 2 | 4 | 5 | 5 | 0 | 0 |
| | 7 | 8 | 9 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | 7 | 8 | 7 | 8 |
| | *TOTALS | | | | | | | | | | | | | | | | | |
| | 1 1.0 | | | | | | | | | | | | | | | | | |

Hyperplasia

* ..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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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:26

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

| CD Rat Female
F1 100PPM | 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 |
| 2 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| 6 | 0 | 6 | 8 | 2 | 3 | 4 | 6 | 0 | 0 | 2 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 9 | 1 | 2 | 3 | 3 | 3 | 3 | 3 |
| 8 | 1 | 5 | 6 | 0 | 4 | 5 | 5 | 3 | 4 | 6 | 5 | 8 | 8 | 3 | 8 | 7 | 7 | 4 | 8 | 1 | 1 | 1 | 1 | 7 | 8 | 8 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| 5 | 9 | 1 | 2 | 3 | 3 | 3 | 4 | 7 | 1 | 2 | 4 | 7 | 8 | 9 | 0 | 0 | 1 | 3 | 7 | 1 | 2 | 4 | 5 | 5 | 8 | 3 |
| 1 | 1 | 8 | 4 | 0 | 6 | 9 | 5 | 8 | 1 | 1 | 3 | 8 | 1 | 4 | 3 | 4 | 5 | 1 | 0 | 8 | 1 | 4 | 5 | 1 | 9 | 4 |

Alimentary System

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

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Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:27

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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Route: DOSED FEED

Species/Strain: Rat/CD

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:28

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM | 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 | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | | | | | | | | | | | | | | | | | | | | | |
| | | 6 | 0 | 6 | 8 | 2 | 3 | 4 | 6 | 0 | 0 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 9 | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | | 8 | 1 | 5 | 6 | 0 | 4 | 5 | 5 | 3 | 4 | 6 | 5 | 8 | 3 | 8 | 7 | 7 | 4 | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Diffuse | | | | | | | | | | | | 3 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | 3 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | M | + | + | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | 3 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| C Cell, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | 2 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | 2 | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | |

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM | 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 | |
| | 2 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | |
| | 6 | 0 | 6 | 8 | 2 | 3 | 4 | 6 | 0 | 0 | 2 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 9 | 1 | 2 | 3 | 3 | 3 | |
| | 8 | 1 | 5 | 6 | 0 | 4 | 5 | 5 | 3 | 4 | 6 | 5 | 8 | 3 | 8 | 7 | 7 | 4 | 8 | 1 | 1 | 1 | 1 | 7 | 8 | 6 | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hemorrhage | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pancreatic, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pancreatic, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Thoracic, Thrombosis | | | | | | | | | | | | | | | | | | | | | 3 | | | | | 2 | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Infiltration Cellular, Plasma Cell | 2 | | 1 | 2 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 2 | | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Granulomatous | 2 | 1 | 2 | 1 | 2 | 1 | 1 | | | 1 | | | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | | | | | | | | | | 2 | | 3 | | 3 | | 2 | | | | | | 1 | | 1 | 2 | 2 | 2 |
| Inflammation, Chronic Active, Focal | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 3 | 2 | 1 | |
| Red Pulp, Atrophy | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 3 | |
| Thymus | + | + | + | + | M | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | 2 | 3 | 2 | | | | | | | 3 | | 1 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:29

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM | 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 |
| | | 2 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| | | 6 | 0 | 6 | 8 | 2 | 3 | 4 | 6 | 0 | 0 | 2 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 9 | 1 | 2 | 3 |
| | | 8 | 1 | 5 | 6 | 0 | 4 | 5 | 5 | 3 | 4 | 6 | 5 | 8 | 8 | 3 | 8 | 7 | 7 | 4 | 8 | 1 | 1 | 1 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | 5 | 9 | 1 | 2 | 3 | 3 | 3 | 4 | 7 | 1 | 2 | 4 | 7 | 7 | 8 | 9 | 0 | 0 | 1 | 3 | 7 | 1 | 2 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Ectopic Thyroid | | | | | | | | | | | | | | | | | | | | | | | | X |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lactation | | 2 | 2 | 2 | | 2 | | 1 | 2 | | | 2 | 2 | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Foot, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | | 2 | 2 | 2 | | 2 | | 1 | | | 2 | 3 | | | | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 2 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | |

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+ ..Tissue examined microscopically

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Time Report Requested: 17:34:29

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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

Respiratory System

Special Senses System

Urinary System

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 30 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | 1 | | 2 | | 1 | | | | 1 | | 4 | 1.3 | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | 3 | |
| Bile Duct, Hyperplasia | | 3 | 2 | 1 | | | | | | | 2 | 1 | 2 | 1 | | | | 15 | 1.5 |
| Biliar Tract, Fibrosis | | 1 | 2 | | | | | | | | | | | | 2 | | | 4 | 1.8 |
| Cyst | | | | | | | | | | | | | | | | | | 1 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Developmental Malformation | | | | | | | | | | | | | | X | | | | 1 | |
| Eosinophilic Focus | | | | | | | | | | | | | | X | | | | 4 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | 1 | | | | | 4 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Vacuolization Cytoplasmic | | | | 1 | | | | | | | 1 | 1 | | 1 | | | | 10 | 1.1 |
| Mesentery | | | | | | | | | | | | | | | | 1 | | | |

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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

*TOTALS

1 2.0

| | | |
|------------------------------|-------------------------------------|----------|
| Fat, Necrosis | + + + + + + + + + + + + + + + + + + | 50 |
| Pancreas | + + + + + + + + + + + + + + + + + + | 50 |
| Acinar Cell, Degeneration | 1 2 1 3 2 | 1 20 1.7 |
| Salivary Glands | + + + + + + + + + + + + + + + + + + | 50 |
| Submandibul GI, Inflammation | 1 | 1 1.0 |
| Stomach, Forestomach | + + + + + + + + + + + + + + + + + + | 50 |
| Hyperplasia | 2 | 1 2.0 |
| Keratin Cyst | | 1 |
| Ulcer | 4 | 1 4.0 |
| Stomach, Glandular | + + + + + + + + + + + + + + + + + + | 50 |
| Erosion | | 1 1.0 |

Cardiovascular System

| | | |
|----------------|-------------------------------------|--------|
| Blood Vessel | + + + + + + + + + + + + + + + + + + | 50 |
| Mineralization | | 1 2.0 |
| Heart | + + + + + + + + + + + + + + + + + + | 50 |
| Cardiomyopathy | 1 1 1 2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 | 24 1.3 |
| Mineralization | | 1 3.0 |

Endocrine System

| | | |
|----------------------|-------------------------------------|--------|
| Adrenal Cortex | + + + + + + + + + + + + + + + + + + | 50 |
| Angiectasis | 1 | 3 1.7 |
| Atrophy | | 1 4.0 |
| Degeneration, Cystic | 2 2 1 3 2 2 1 1 2 2 2 2 2 3 1 | 42 1.9 |

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CD Rat Female
F1 100PPM

| | 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 | 7 | 7 | |
| | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 5 | |
| | 8 | 7 | 3 | 5 | 4 | 3 | 4 | 4 | 9 | 9 | 9 | 8 | 7 | 9 | 9 | 0 | 9 | 0 | 9 | 0 | 7 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | |
| | 8 | 8 | 4 | 6 | 6 | 6 | 0 | 2 | 8 | 0 | 0 | 1 | 2 | 3 | 3 | 6 | 6 | 1 | 1 | 1 | 1 | |
| | 1 | 2 | 3 | 2 | 5 | 6 | 3 | 0 | 2 | 6 | 9 | 2 | 1 | 0 | 1 | 2 | 7 | 3 | 4 | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 16 | 1.3 | |
| Hypertrophy | 1 | 2 | | | 2 | 1 | 1 | | | 1 | 2 | | | | | | | 2 | 1 | 1 | 18 | 1.6 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia, Diffuse | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 7 | 1.6 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 46 | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | | | | | | | | | | | | | | X | | | | 1 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | 13 | 1.8 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | 3 | 1.3 |
| Cyst, Squamous | | 1 | | | 1 | 1 | | | | | | | | | | 1 | | 1 | | 9 | 1.1 | |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | 3 | | 1 | 2 | 8 | 2.3 |

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|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | 4 | 2 | 1 | 2 | | | | 1 | 2 | 3 | 2 | 1 | 2 | 2 | | | | | 21 2.0 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Atrophy | | 3 | 2 | | | 2 | 3 | 1 | | 2 | 2 | 3 | 2 | 2 | 3 | | | | | 29 2.2 |
| Cyst | | X | X | | | X | X | X | X | | | | | | | | | | | 14 |
| Hyperplasia, Stromal | | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | | | | | 30 2.0 |
| Oviduct | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Atrophy | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cervix, Muscularis, Hypertrophy | | | | | | X | | | | | | | | | | | | | | 2 |
| Hyperplasia, Cystic | | 1 | | 3 | 1 | | 2 | 1 | | 2 | 3 | 3 | 3 | 3 | 3 | | | | | 16 2.2 |
| Metaplasia | | 2 | | | | | 1 | | | | | 1 | | | | | | | | 8 1.4 |
| Necrosis | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | 1 | | | | | | | | | | | | | | 5 1.2 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hypocellularity | | | | | | | | | 2 | | | | | | | | | | | 2 2.0 |
| Lymph Node | | | | | | | | | + | | + | + | + | | | + | | + | 12 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:30

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM | DAY ON TEST | Data Grid (0-9 scale) | | | | | | | | | | | | | | | | | | *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 | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 4 3.0 |
| Lumbar, Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 4 2.3 |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreatic, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreatic, Pigmentation | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Thoracic, Thrombosis | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | 2 | | | | | | | | | | | | | | | | | | 3 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Plasma Cell | | 2 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 43 1.7 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Granulomatous | | 2 | 2 | 2 | | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 42 1.6 |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hematopoietic Cell Proliferation | | 2 | | | | | | | | | | | | | | | | | | 12 2.0 |
| Inflammation, Chronic Active, Focal | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | 5 2.2 |
| Pigmentation | | 1 | 3 | 1 | 1 | | 1 | 2 | 4 | 2 | | | | | 1 | | 1 | 1 | 1 | 28 1.8 |
| Red Pulp, Atrophy | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | M | 43 | |
| Atrophy | | 2 | | | | | | | | | | | | | | | | | | 7 2.4 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:31

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|---|----|-----|
| Cyst | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | | | | | | | | | | | 1 | 16 | 1.3 |
| Ectopic Thyroid | | | | | | | | | | | | | | | | | | | | | 1 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Alveolus, Hyperplasia | | 2 | 1 | | | | | | 2 | | | | | | | | 1 | 1 | 2 | | 11 | 1.9 |
| Atypical Focus | | | | | | | X | | | | | | | | | X | X | X | | | 6 | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Lactation | 2 | 1 | 2 | 2 | 1 | | 1 | 1 | | | | | | | | 2 | 2 | 2 | 1 | | 35 | 1.6 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | | |
| Foot, Inflammation, Chronic | 4 | 2 | 2 | 3 | 3 | 1 | 3 | | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | | | 32 | 2.4 |

Musculoskeletal System

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|--|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | 1 | | |

Nervous System

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Compression | 2 | 1 | | | | 1 | | 3 | | | | 2 | | 2 | 2 | | | | | 24 | 2.0 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |

Respiratory System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:31

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM | 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 |
| | | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 |
| | | 8 | 7 | 3 | 5 | 4 | 3 | 4 | 4 | 9 | 9 | 9 | 8 | 7 | 9 | 9 | 0 | 9 | 0 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | | 8 | 8 | 4 | 6 | 6 | 6 | 0 | 2 | 8 | 0 | 0 | 1 | 2 | 3 | 3 | 6 | 6 | 1 | 1 |
| | | 1 | 2 | 3 | 2 | 5 | 6 | 3 | 0 | 2 | 6 | 9 | 2 | 1 | 0 | 1 | 2 | 7 | 3 | 4 |

*TOTALS

Respiratory System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | 13 1.5 |
| Inflammation | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Nasolacrim Dct, Inflammation | | | | | | | | | | | | | | | | | | | 6 1.7 |
| Upper Molar, Inflammation | | | | X | | X | X | X | | | | | | | | | | | 5 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

Special Senses System

| | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 31 |
| Bilateral, Lens, Cataract | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | 3 1.7 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 30 |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | 9 1.4 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | 4 1.5 |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | 1 |

Urinary System

| | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:31

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM

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

| | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Cyst | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 13 |
| Epithelium, Pelvis, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infarct | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Nephropathy | 1 | | | 1 | 2 | | | 1 | | | | 2 | | | | | | | 12 1.4 |
| Pelvis, Mineralization | | | | | | | | | | | | 1 | 1 | 1 | | 1 | 1 | 1 | 23 1.3 |
| Renal Tubule, Mineralization | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | | | 2 | 2 | | 1 | | 2 | | 1 | 36 1.8 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | 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

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:31

First Dose M/F: NA / NA

Lab: NCTR

Alimentary System

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:32

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 3 | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | |
| | | 3 | 4 | 5 | 0 | 1 | 5 | 6 | 6 | 9 | 0 | 1 | 1 | 2 | 3 | 3 | 4 | 6 | 6 | 7 | 7 | | |
| | | 0 | 5 | 9 | 8 | 2 | 0 | 5 | 8 | 8 | 5 | 8 | 8 | 6 | 0 | 2 | 4 | 0 | 0 | 8 | 5 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 5 | 6 | 6 | 9 | 2 | 5 | 7 | 8 | 1 | 1 | 3 | 3 | 3 | 6 | 7 | 8 | 1 | 1 | 2 | 3 | 5 | |
| | | 7 | 0 | 2 | 3 | 5 | 2 | 4 | 7 | 0 | 9 | 3 | 6 | 8 | 1 | 0 | 4 | 5 | 6 | 4 | 7 | 0 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | X | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | | | X | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | + | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | + | |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | + | |
| Parotid GI, Inflammation | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | + | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Erosion | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | + | |
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | + | |
| Heart | | | | | | | | | | | | | | | | | | | | | | + | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | + | |
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | + | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 1 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:32

First Dose M/F: NA / NA

Lab: NCTR

NONE

Genital System

Clitoral Gland

Duct. Dilatation

Hyperplasia

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

± ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

| ..Insufficient tissue

A ..Autolysis precludes evaluation

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:33

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM | 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 | | |
| | | 3 | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | |
| | | 3 | 4 | 5 | 0 | 1 | 5 | 6 | 6 | 9 | 0 | 1 | 1 | 2 | 3 | 3 | 4 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | | 0 | 5 | 9 | 8 | 2 | 0 | 5 | 8 | 8 | 5 | 8 | 8 | 6 | 0 | 2 | 4 | 0 | 0 | 8 | 5 | 9 | 8 | 8 | |
| | | 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, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Infiltration Cellular, Plasma Cell | | 2 | 2 | | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | |
| Hemorrhage | | 1 | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation, Granulomatous | | 1 | 1 | 2 | | 2 | 2 | 1 | 2 | 2 | 1 | | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | | 3 | | | | | | | | | | | 1 | 3 | | 2 | | | | | | | | | 1 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | 2 | | | | | | | | | 2 | |
| Pigmentation | | 2 | 2 | | 3 | 2 | 3 | 2 | 3 | 3 | 3 | | 2 | 2 | | 1 | 2 | 1 | 2 | 4 | 2 | 4 | | 3 | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | |
| Atrophy | | | | | | | | | | | | | | | 2 | | 2 | 2 | 2 | 2 | | | 3 | 2 | |
| Cyst | | | | | | | | | | | | | | | 1 | | 1 | 1 | | 2 | | | 2 | 2 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | 1 | | 2 | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 3 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:34

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F1 500PPM**

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM

* ..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:

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:34

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|
| | | 7 | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 5 9 8 8 9 9 9 0 0 1 | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | *TOTALS | |
| 5 5 5 5 5 6 6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 | | | | | | | | | | | | | | | | | | | |
| 3 4 4 4 4 4 4 4 6 8 4 0 1 1 2 3 3 3 4 6 1 | | | | | | | | | | | | | | | | | | | |
| 0 2 6 8 9 1 7 9 5 5 0 1 1 9 2 3 3 1 6 2 | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 24 | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Intestine Small, Ileum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Intestine Small, Jejunum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Inflammation | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Angiectasis | | | | | | | | | | | | | | | | | | 1 | 2 1.0 |
| Atypical Cells | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Basophilic Focus | | | | | X | | X | X | | | | | | | | | | 7 | |
| Bile Duct, Hyperplasia | 1 | 1 | 2 | | 1 | | | | | | | | | | | | | 10 1.2 | |
| Biliar Tract, Fibrosis | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Cyst | | | | | | | | | | | | X | | | | | | 2 | |
| Eosinophilic Focus | | | | | | | X | | | | | X | | | | | | 2 | |
| Hematopoietic Cell Proliferation | | | | | | | 1 | | | | | | | 1 | | | | 4 1.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | 2 1.0 | |
| Inflammation, Chronic Active | | | | | 1 | | | | | | | 2 | | | | | | 2 1.5 | |

* ..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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Time Report Requested: 17:34:35

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM | 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 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | 1 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | 2 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | 2 1.3 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Parotid GI, Inflammation | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Erosion | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Cardiomyopathy | 1 | 2 | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 26 1.3 | |
| Inflammation | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | 1 | |
| Angiectasis | | 1 | | | 1 | | | | | | | | | | | | | | 5 1.0 | |

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F1 500PPM | 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 | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 | 8 7 8 8 8 3 3 4 5 9 8 8 9 9 9 0 0 1 | *TOTALS | | | | | | | | | | | | |
| 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 | 5 5 5 5 5 6 6 6 7 8 8 8 8 8 8 8 8 8 9 | 3 4 4 4 4 4 4 6 8 4 0 1 1 2 3 3 4 6 1 | 0 2 6 8 9 1 7 9 5 5 0 1 1 9 2 3 3 1 6 2 | *TOTALS | | | | | | | | | | | |
| | 2 | 3 | 2 | 3 2 1 | 1 2 2 1 | 1 2 2 1 | 2 | 42 2.1 | | | | | | | | | |
| Atrophy | | 2 | | | | | | 1 2.0 | | | | | | | | | |
| Degeneration, Cystic | 4 | 2 1 | 3 2 2 2 2 | 1 2 2 2 1 | 2 | 42 2.1 | | | | | | | | | | | |
| Hyperplasia | 2 | | 2 | | 1 1 | 9 1.4 | | | | | | | | | | | |
| Hypertrophy | | | 3 2 1 | 1 2 1 | | 14 1.6 | | | | | | | | | | | |
| Infarct | | | | | | 1 3.0 | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | 1 1.0 | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hyperplasia, Focal | | | 2 | | | | | | | | | | | | | | 2 2.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Parathyroid Gland | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | 1 3.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pars Distalis, Hyperplasia | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | 1 1.3 |
| Cyst, Squamous | | | 2 | | | | | | | | | | | | | | 5 1.4 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Duct, Dilatation | | | | | | | | | | 1 | 3 | | | | | | 6 2.3 |
| Hyperplasia | | | | | | | | | | | | | | | | | 1 2.0 |

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F1 500PPM | DAY ON TEST | | | | | | | | | | | | | | | | | *TOTALS |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| | | 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 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 8 | 7 | 8 | 8 | 8 | 3 | 3 | 4 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 0 | 1 |
| Inflammation | | | | | 2 | 3 | 1 | | 1 | 2 | 2 | 2 | | 2 | | 1 | 1 | 3 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | 23 1.7 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | 3 | 3 | 3 | | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | | 40 2.4 |
| Cyst | | | | X | X | | | X | X | | | X | X | X | | | | 13 |
| Hyperplasia, Stromal | | | | 2 | | | | 1 | 2 | | | 2 | 3 | 1 | 1 | | | 19 1.8 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia, Cystic | | 1 | 2 | | 4 | | 2 | 1 | 3 | 2 | | 1 | 2 | | 3 | 3 | | 24 2.0 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | 1 2.0 |
| Metaplasia | | | | 1 | | | | | | | | 1 | | | | | | 5 1.0 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Developmental Malformation | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | 7 1.7 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hypocellularity | | | | | | 3 | | | | 2 | | | | | | | | 2 2.5 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | 2 | | | | | | | | 2 2.0 |
| Lymph Node | | | | | | | + | + | | | | | | | + | | | 5 |
| Degeneration, Cystic | | | | | | | | 1 | | | | | | | | | | 1 1.0 |

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| CD Rat Female
F1 500PPM | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---------------------------------------|---------|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| | | 7 | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 5 | 8 7 8 8 8 3 3 4 5 9 8 8 9 9 9 0 0 0 1 | *TOTALS | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 5 5 5 5 5 6 6 6 7 8 8 8 8 8 8 8 8 8 8 9 | 3 4 4 4 4 4 4 6 8 4 0 1 1 2 3 3 4 6 6 1 | 0 2 6 8 9 1 7 9 5 0 1 1 9 2 3 3 1 6 2 | *TOTALS | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Lumbar, Degeneration, Cystic | | | | 2 | | | | | | | | | | | | | | | | 3 2.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | 3 | | | | | | | | | | | | | | | | 3 2.7 |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Renal, Degeneration, Cystic | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | 3 | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Infiltration Cellular, Plasma Cell | 2 | 1 | | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 44 1.9 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Inflammation, Granulomatous | 2 | 2 | 1 | 2 | 2 | | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | | 44 1.7 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hematopoietic Cell Proliferation | | | | | | | | 1 | 2 | 2 | 1 | | | | | | | | 12 1.8 | |
| Lymphocyte, Atrophy | | | | 2 | | | | | | | | | | | | | | | 6 2.0 | |
| Pigmentation | 2 | 3 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 1 | | 2 | 2 | 3 | 1 | 3 | 1 | 41 2.1 | |
| Thymus | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | M | 44 | |
| Atrophy | | 3 | 2 | | | | | | | | | | | | | | | | 12 2.3 | |
| Cyst | 3 | | | 2 | | | 2 | 1 | | 3 | | | 2 | 2 | 1 | | | | 17 1.8 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | 3 | | 3 2.0 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | 1 3.0 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:36

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM | 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 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | 8 | 7 | 8 | 8 | 8 | 3 | 3 | 4 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 3 | 4 | 4 | 4 | 4 | 4 | 6 | 8 | 4 | 0 | 1 | 1 | 2 | 3 | 3 | 4 | 6 | 1 | 1 |
| | 0 | 2 | 6 | 8 | 9 | 1 | 7 | 9 | 5 | 5 | 0 | 1 | 9 | 2 | 3 | 1 | 6 | 2 | 2 |

*TOTALS

Integumentary System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Alveolus, Degeneration | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | 11 2.0 |
| Atypical Focus | | | X | | | | X | | | | | | | | | | | | 5 |
| Galactocele | | | | | | 1 | | | | | | | | | | | | | 2 1.5 |
| Lactation | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | | | 42 1.5 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Foot, Inflammation, Chronic | 4 | 3 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 33 2.3 |

Musculoskeletal System

| | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Compression | 1 | 1 | | 2 | 1 | 2 | 1 | | | 2 | | | 3 | 2 | 2 | | | | 35 1.8 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | 3 2.0 |

Respiratory System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Infiltration Cellular, Histiocyte | 1 | | | | | | | | | 1 | 1 | | 1 | 3 | | | 1 | 1 | 17 1.2 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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| CD Rat Female
F1 500PPM | 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 | |
| | | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 8 | 7 | 8 | 8 | 8 | 3 | 3 | 4 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 1 | |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | 2 |
| Nasolacrim Dct, Inflammation | | | | | | | | | | | | | | | | | | | | 7 1.4 |
| Upper Molar, Inflammation | | | | | | | | | | | | | | | | | | | | 3 |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Special Senses System | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lens, Cataract | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Phthisis Bulbi | | | | | | | | | | | | | | | | | | | | 1 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | 3 1.7 |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epithelium, Degeneration | | | 1 | 2 | 1 | 3 | | | | | 1 | 2 | 1 | 2 | 2 | 2 | 3 | | | 10 1.8 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | 1 |
| Metaplasia | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Urinary System | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Cyst | | | | | | X | | | | | X | | | X | | | X | | | 13 |
| Inflammation | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM

| 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 |
| | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 8 | 7 | 8 | 8 | 8 | 3 | 3 | 4 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 8 | 4 | 0 | 1 | 1 | 2 | 3 | 3 | 4 | 6 |
| | 0 | 2 | 6 | 8 | 9 | 1 | 7 | 9 | 5 | 5 | 0 | 1 | 9 | 2 | 3 | 1 | 6 | 2 |
| *TOTALS | | | | | | | | | | | | | | | | | | |
| Nephropathy | | 1 | | 2 | | 1 | | 1 | | 1 | | 1 | | 2 | | 1 | 17 | 1.4 |
| Pelvis, Mineralization | | 1 | 1 | | 1 | | | | | 2 | 1 | | 1 | 1 | | | 25 | 1.2 |
| Renal Tubule, Mineralization | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 37 | 1.5 |
| Renal Tubule, Pigmentation | | | | | | | | | | 2 | | | | | | | 1 | 2.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Developmental Malformation | | | | | | | | | | | | | | | | | 1 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
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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 |
| 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 2 | 3 | 5 | 4 | 8 | 2 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 |
| 5 | 9 | 1 | 3 | 1 | 0 | 5 | 7 | 4 | 8 | 7 | 9 | 3 | 3 | 8 | 2 | 9 | 4 | 7 | 7 | 7 | 8 | 7 | 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 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 6 | 6 |
| 5 | 0 | 1 | 4 | 9 | 3 | 5 | 3 | 5 | 6 | 7 | 9 | 1 | 1 | 9 | 4 | 2 | 2 | 4 | 3 | 9 | 7 | 9 | 8 | 6 | 4 | 1 |
| 6 | 2 | 4 | 8 | 5 | 5 | 5 | 3 | 5 | 7 | 9 | 1 | 1 | 9 | 4 | 2 | 2 | 4 | 3 | 6 | 7 | 9 | 8 | 6 | 4 | 5 | 7 |

Alimentary System

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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 | | |
| | | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 2 | 3 | 5 | 4 | 8 | 2 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | | |
| | | 5 | 9 | 1 | 3 | 1 | 0 | 5 | 7 | 4 | 8 | 7 | 9 | 3 | 3 | 8 | 2 | 9 | 4 | 7 | 7 | 7 | 8 | 0 | 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 | | |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | + | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Acinar Cell, Degeneration | 1 | 1 | | | | | | | | | | | | | | | 4 | | 4 | 1 | | 2 | 1 | | 1 | | 2 | 1 |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Diverticulum | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | 2 | | | 3 | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Tongue | | | | | | | | | | | | | | | | | + | | | | | | | | | | | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | 1 | | 1 | 1 | 2 | 1 | | 1 | 1 | 2 | 1 | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Degeneration, Cystic | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 1 | 4 | 1 | 2 | 1 |

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

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| CD Rat Female
F1 5PPM/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 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 2 | 3 | 5 | 4 | 8 | 2 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| | ANIMAL ID | 5 | 9 | 1 | 3 | 1 | 0 | 5 | 7 | 4 | 8 | 7 | 9 | 3 | 3 | 8 | 2 | 9 | 4 | 7 | 7 | 7 | 8 | 7 | 8 | 0 | 0 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hypertrophy | | 2 | | 3 | | 1 | 1 | 1 | 1 | 1 | 2 | | | | | 1 | 2 | 3 | 2 | 1 | 1 | 2 | 1 | | 4 | 2 | | | | |
| Vacuolization Cytoplasmic | | | | | | | 2 | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | 2 | | | 2 | | | | | | | | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 2 | | | | | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | 1 | | | 3 | | | | 4 | | | | | | |
| Inflammation | | 2 | | | | | 3 | 2 | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | | 2 | 1 | 1 | 2 | | | 1 | 2 | | |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |

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

+ ..Tissue examined microscopically

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1-4 „Lesion qualified as:

X ..Lesion present

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1) Minimal 3) Moderate

I. Insufficient tissue

BLANK - Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:38

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM/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 |
| | | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 2 | 3 | 5 | 4 | 8 | 2 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 0 | 2 | 3 | 3 | 3 |
| | | 5 | 9 | 1 | 3 | 1 | 0 | 5 | 7 | 4 | 8 | 7 | 9 | 3 | 3 | 8 | 2 | 9 | 4 | 7 | 7 | 8 |
| | | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 |
| | | 5 | 0 | 1 | 4 | 9 | 3 | 5 | 5 | 6 | 0 | 2 | 3 | 3 | 4 | 6 | 7 | 0 | 3 | 9 | 9 | 3 |
| | | 6 | 2 | 4 | 8 | 5 | 5 | 3 | 5 | 7 | 9 | 1 | 1 | 9 | 4 | 2 | 2 | 4 | 3 | 6 | 7 | 8 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | + | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | |
| Thoracic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

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

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Experiment Number: 99930-94

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Test Compound: Endocrine disruptor (Genistein)

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Date Report Requested: 10/22/2014

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 5PPM/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 | | | | | | | | | | | | | | | | | | | | | |
| | | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | 3 | 5 | 4 | 8 | 2 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | | 5 | 9 | 1 | 3 | 1 | 0 | 5 | 7 | 4 | 8 | 7 | 9 | 3 | 3 | 8 | 2 | 9 | 4 | 7 | 7 | 8 | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | 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 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | | | | | | | | | | | | | | | | | | | | | |
| | | 5 | 0 | 1 | 4 | 9 | 3 | 5 | 5 | 6 | 0 | 2 | 3 | 3 | 4 | 6 | 7 | 0 | 3 | 9 | 9 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | | 6 | 2 | 4 | 8 | 5 | 5 | 3 | 5 | 7 | 9 | 1 | 1 | 9 | 4 | 2 | 2 | 4 | 3 | 6 | 7 | 8 | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | 2 | 1 | 2 | | | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | | 2 | 2 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | |
| | | Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| | | Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lactation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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M ..Missing tissue

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:39

First Dose M/F: NA / NA

Lab: NCTR

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**CD Rat Female
F1 5PPM/CTL**

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Lab: NCTR

CD Rat Female
F1 5PPM/CTL

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

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 1.0 |
| | 1 | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 33 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | 6 2.2 |
| Basophilic Focus | | | | | | | | X | | | X | | | X | | | | | 5 |
| Bile Duct, Hyperplasia | 2 | 1 | 1 | | | | 2 | | 1 | | | | 1 | 1 | | | | | 15 1.2 |
| Biliar Tract, Fibrosis | | 1 | | | | | | 2 | | | | | | | | | | | 6 1.5 |
| Cyst | X | | | | | | | | | | | | | | | | | | 1 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | 2 |
| Fibrosis | | | | | | | | | | | | | 1 | | | | | | 1 1.0 |
| Hematopoietic Cell Proliferation | 1 | | | | | | | | | | | | | | | | | | 2 1.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | 2 | | | | | | | 1 | | | | | 4 1.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | 1 | | | | 2 | 1 | | | | | | | 1 | 1 | | | | | 8 1.4 |

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Time Report Requested: 17:34:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |
| | | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | | 5 | 5 | 5 | 7 | 7 | 9 | 0 | 0 | 5 | 5 | 5 | 6 | 1 | 1 | 3 | 7 | 7 | 7 | |
| | | 1 | 3 | 4 | 1 | 2 | 1 | 8 | 9 | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 2 | 3 | 4 | |
| Vacuolization Cytoplasmic, Focal | | X | | | X | X | | | | | | | | | | | | | | 3 |
| Mesentery | | | | | | | | | | | | | | | | | | | | 2 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | 18 1.7 |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 49 |
| Diverticulum | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Tongue | | | | | | | | | | | | | | | | | | | | 1 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | 1 23 1.2 |
| Endocrine System | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration, Cystic | | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 46 1.7 |

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| | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | |
| | | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | | |
| | | 5 | 5 | 5 | 7 | 7 | 9 | 0 | 0 | 5 | 5 | 5 | 6 | 1 | 1 | 3 | 7 | 7 | 7 | | |
| | | 1 | 3 | 4 | 1 | 2 | 1 | 8 | 9 | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 2 | 3 | 4 | | |
| Hyperplasia | | | | | 1 | 1 | | | | | 2 | 2 | 1 | | 1 | | | | 12 | 1.3 | |
| Hypertrophy | | 3 | 3 | 2 | 1 | | 4 | 3 | 1 | | 1 | 2 | | | | | | | 28 | 1.9 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | 2 | 2.5 | |
| Adrenal Medulla | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Hyperplasia, Focal | | | | | | | | 1 | | | | | | | | | | | 7 | 1.6 | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 2 | 1.0 |
| Parathyroid Gland | | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Cyst | | | | | X | | | | | | | | | | | | | | 2 | | |
| Pars Distalis, Hyperplasia | | | | | | 1 | 3 | | | | | | | 1 | 2 | | | | 6 | 2.0 | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| C Cell, Hyperplasia | | | | | | | 2 | | | | | | | | | | | | 2 | 1.5 | |
| Cyst, Squamous | | | | | 1 | | 2 | | | 1 | | | | | | | | | 7 | 1.3 | |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Clitoral Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Duct, Dilatation | | | | | 2 | | | 2 | | | | | | | | | | | 6 | 2.5 |
| Inflammation | | | | | 2 | | | 2 | 1 | 1 | | 2 | | 1 | 2 | 1 | 1 | | 24 | 1.6 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | |
| | | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | | |
| | | 5 | 5 | 5 | 7 | 7 | 9 | 0 | 0 | 5 | 5 | 5 | 6 | 1 | 1 | 3 | 7 | 7 | 7 | | |
| | | 1 | 3 | 4 | 1 | 2 | 1 | 8 | 9 | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 2 | 3 | 4 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | 2 | | | | | | | | | | | | | | | | | | | 24 | 2.0 |
| Cyst | X | | | | | | | | | | | | | | | | | | | X | 9 |
| Hyperplasia, Stromal | 4 | 3 | | | | | | | | | | | | | | | | | | 25 | 2.0 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia, Cystic | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 15 | 1.6 |
| Metaplasia | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 49 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node | + | | + | + | | | | | | | | | | | | | | | | 9 | |
| Lumbar, Degeneration, Cystic | 2 | 3 | 2 | | | | | | | | | | | | | | | | | 6 | 2.2 |
| Lumbar, Infiltration Cellular, Plasma Cell | 3 | 3 | 2 | | | | | | | | | | | | | | | | | 6 | 2.3 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Thoracic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM/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 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 2 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | 5 | 5 | 5 | 7 | 7 | 9 | 0 | 0 | 5 | 5 | 5 | 6 | 1 | 1 | 3 | 7 | 7 | 7 | 1 | |
| | 1 | 3 | 4 | 1 | 2 | 1 | 8 | 9 | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 2 | 3 | 4 | 5 | |
| Infiltration Cellular, Plasma Cell | 3 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 38 1.7 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Granulomatous | 2 | 1 | 1 | 3 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 46 1.7 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | 2 | 5 1.8 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Pigmentation | 3 | 2 | 1 | | 1 | | | 1 | 2 | 2 | 1 | 2 | | 1 | 1 | | | | 1 | 28 1.9 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Atrophy | 2 | 2 | | | | | | | | | | | | | | | | | | 10 1.9 |
| Cyst | | | | | | | | 1 | 3 | 2 | 2 | 3 | 1 | | | | | | 1 | 17 1.9 |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | 3 | | | | | | 2 2.5 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolus, Hyperplasia | 2 | 1 | 1 | | | | | 1 | 2 | | 1 | | | | | | | | | 14 1.4 |
| Atypical Focus | | | | | | | | X | | X | | | | | | | | | | 2 |
| Galactocele | | | | | | | | | | 3 | | | | | | | | | | 2 2.5 |
| Lactation | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | | 1 | 1 | | | | | 2 | | 28 1.4 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | 1 | |
| Foot, Inflammation, Chronic | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | | 35 2.6 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:41

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM/CTL

| | DAY ON TEST | CD Rat Female F1 5PPM/CTL | | | | | | | | | | | | | | | | | |
|-----------------------------------|-------------|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| | | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 2 | 2 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 5 | 5 | 5 | 7 | 7 | 9 | 0 | 0 | 5 | 5 | 5 | 6 | 1 | 1 | 3 | 7 | 7 | 7 | 1 |
| | 1 | 3 | 4 | 1 | 2 | 1 | 8 | 9 | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 2 | 3 | 4 | 5 |
| | *TOTALS | | | | | | | | | | | | | | | | | | |
| Inflammation | 2 | | | | | | | | | | | | | | | | | | |
| Lip, Inflammation, Chronic | 3 | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bone, Mandible | + | | | | | | | | | | | | | | | | | | 1 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | 1 |
| Nervous System | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | 2 | | | | | | | | | | | | | | | | | 15 | 2.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Respiratory System | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atelectasis | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Infiltration Cellular, Histiocyte | 1 | | | | | | | | | | | | | | | | | 12 | 1.4 |
| Inflammation | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Metaplasia | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Nose | | | | | | | | | | | | | | | | | | 50 | |
| Fungus | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation | | | | | | | | | | | | | | | | | | 4 | 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:41

First Dose M/F: NA / NA

Lab: NCTR

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Test Compound: Endocrine disruptor (Genistein)

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Date Report Requested: 10/22/2014

Time Report Requested: 17:34:41

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 5PPM/CTL

| 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 |
| Pelvis, Mineralization | | | | | | | 2 | 2 | 2 | | | | | | | 20 | 1.5 | |
| Renal Tubule, Mineralization | 2 | 2 | | | 2 | 1 | | 3 | 2 | 1 | | | | 2 | 2 | 1 | 2 | 36 1.9 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 49 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

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Test Type: SPECIAL STUDY

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Species/Strain: Rat/CD

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Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:41

First Dose M/F: NA / NA

Lab: NCTR

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:42

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM/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 | |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |
| | | 9 | 9 | 3 | 9 | 3 | 7 | 9 | 0 | 2 | 3 | 5 | 5 | 8 | 8 | 0 | 2 | 5 | 9 | 9 | 0 | 3 | |
| | | 4 | 7 | 7 | 2 | 4 | 4 | 9 | 7 | 7 | 0 | 3 | 7 | 2 | 9 | 5 | 5 | 0 | 1 | 2 | 0 | 4 | |
| | | 5 | 1 | 7 | 8 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| | | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | |
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | |
| | | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | |
| | | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | |
| | | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | |
| | | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | |
| | | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | |
| | | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | |
| | | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | |
| | | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | |
| | | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | |
| | | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | |
| | | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | |
| | | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | |
| | | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | |
| | | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | |
| | | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | |
| | | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | |
| | | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | |
| | | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | |
| | | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | |
| | | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 470 | |
| | | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 480 | 481 | |
| | | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 490 | 491 | 492 | |
| | | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 500 | 501 | 502 | 503 | |
| | | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 510 | 511 | 512 | 513 | 514 | |
| | | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 520 | 521 | 522 | 523 | 524 | 525 | |
| | | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | |
| | | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | |
| | | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | |
| | | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | |
| | | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 600 | |
| | | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 610 | 611 | |
| | | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 620 | 621 | 622 | |
| | | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 630 | 631 | 632 | 633 | |
| | | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 640 | 641 | 642 | 643 | 644 | |
| | | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | |
| | | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | |
| | | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | |
| | | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | |
| | | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | |
| | | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 760 | |
| | | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 770 | 771 | |
| | | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 780 | 781 | 782 | |
| | | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 790 | 791 | 792 | 793 | |
| | | 794</td | | | | | | | | | | | | | | | | | | | | | |

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:42

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM/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 | | |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 8 | 4 | |
| Hyperplasia, Focal | 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 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | |
| | | 9 | 9 | 3 | 9 | 3 | 7 | 9 | 0 | 2 | 3 | 5 | 5 | 8 | 8 | 0 | 2 | 5 | 9 | 9 | 0 | 3 | 5 | |
| | | 4 | 7 | 7 | 2 | 4 | 4 | 9 | 7 | 7 | 0 | 3 | 7 | 2 | 9 | 5 | 5 | 0 | 1 | 2 | 0 | 4 | 5 | |
| Islets, Pancreatic | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Parathyroid Gland | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | + | |
| Pituitary Gland | | | | | | | | | | | | | | | | | | | | | | | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | + | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | + | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicular Cel, Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | + | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | + | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | + | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:43

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM/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 | |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 4 | 4 |
| | | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 8 | 4 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 6 |
| | | 9 | 9 | 3 | 9 | 3 | 7 | 9 | 0 | 2 | 3 | 5 | 5 | 8 | 8 | 0 | 2 | 5 | 9 | 9 | 0 | 3 | 5 |
| | | 4 | 7 | 7 | 2 | 4 | 4 | 9 | 7 | 7 | 0 | 3 | 7 | 2 | 9 | 5 | 5 | 0 | 1 | 2 | 0 | 4 | 5 |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | |

* ..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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Experiment Number: 99930-94

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Date Report Requested: 10/22/2014

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 17:34:43

CAS Number: 446-72-0

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 100PPM/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 |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 8 | 4 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 |
| | | 9 | 9 | 3 | 9 | 3 | 7 | 9 | 0 | 2 | 3 | 5 | 5 | 8 | 8 | 0 | 2 | 5 | 9 | 9 | 0 | 3 | 5 |
| | | 4 | 7 | 7 | 2 | 4 | 4 | 9 | 7 | 7 | 0 | 3 | 7 | 2 | 9 | 5 | 5 | 0 | 1 | 2 | 0 | 4 | 5 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Inflammation, Granulomatous | | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 1 |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | 2 | | | 1 | | 2 | | | | | | | | | | | | | | | | 2 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | + |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | X |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lactation | | 1 | 1 | 1 | | | | | | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 2 |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foot, Inflammation, Chronic | | | | | | | | | | 1 | | 4 | 4 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Lip, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | + |

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

+ ..Tissue examined microscopically

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X ..Lesion present

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F1 100PPM/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 | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 8 | 8 | 9 | 7 | 7 | 0 | 3 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | |
| | 9 | 9 | 3 | 9 | 3 | 7 | 9 | 0 | 2 | 3 | 5 | 5 | 8 | 8 | 0 | 2 | 5 | 9 | 9 | 0 | 3 | 3 | 5 | 5 | 1 | 4 | 4 | 5 | |
| | 4 | 7 | 7 | 7 | 2 | 4 | 4 | 9 | 9 | 7 | 0 | 3 | 7 | 2 | 9 | 5 | 5 | 0 | 1 | 2 | 1 | 7 | 8 | 6 | 4 | 5 | 0 | 5 | |

Nervous System

Respiratory System

Special Senses System

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Lens, Cataract | | | | | | | | | | | | | | | | | | | 2 | | | | |
| Bilateral, Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | 3 | 3 | 1 | 3 | 3 |
| Harderian Gland | | | | | | | | | | | | | | | | | | + | + | + | + | + | + |

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

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First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F1 100PPM/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 | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 7 | 1 | 3 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | 0 | 3 | 8 | 7 | 9 | 2 | 4 | 8 | 0 | 0 | 3 | 3 | 8 | 3 | 9 | 0 | 2 | 7 | 7 | 3 | 8 | 8 | 9 | 7 | 7 | 0 | 3 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 7 | 7 |
| | 9 | 9 | 3 | 9 | 3 | 9 | 3 | 7 | 9 | 2 | 3 | 5 | 5 | 8 | 8 | 9 | 5 | 2 | 5 | 9 | 9 | 0 | 3 | 3 | 5 | 5 | 1 | 7 | 0 |
| | 4 | 7 | 7 | 7 | 2 | 4 | 4 | 9 | 7 | 7 | 0 | 3 | 7 | 9 | 5 | 0 | 1 | 2 | 0 | 4 | 5 | 1 | 7 | 8 | 6 | 4 | 5 | 7 | 0 |

Epithelium, Degeneration

2 1 3 3 2 3 1 1 2 1

Hypertrophy

2 1 2

Urinary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | 7 | 7 | 1 |
| | 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 |
| | | | | | | | | | | | | | | | | | | |

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large | | | | | | | | | | | | | | | | | | 1 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 36 |
| Intestine Small | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | 1 1.0 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | 4 1.8 |
| Basophilic Focus | | | | | | X | X | | | X | | | | | | | | 7 |
| Bile Duct, Hyperplasia | 1 | 1 | 1 | | | | | | | 1 | 1 | 1 | 1 | 1 | | | 1 | 18 1.2 |
| Cyst | | | | | | | | X | | | | | | | | | | 1 |
| Degeneration, Cystic | | | | | 1 | | | | | | | | | | | | | 1 1.0 |
| Developmental Malformation | | | | | | X | | | | | | | | | | | | 2 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | 1 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | 1 | | | | | | | | | | | | 4 1.5 |
| Necrosis | | | | 2 | | | | | | | | | | | | | | 2 2.5 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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Experiment Number: 99930-94

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM/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 | 7 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 0 | 7 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| 4 | 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | 7 | 7 | 1 | 1 |
| 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 | 9 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Vacuolization Cytoplasmic, Focal | X | | | | | | | | | | | | | | | | | | 3 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | 11 1.7 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Submandibul Gl, Inflammation | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 49 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | 1 1.2 |
| Endocrine System | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Degeneration, Cystic | 1 | 2 | 1 | 2 | 1 | 2 | | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 2 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 45 1.8 |
| Hypertrophy | 1 | 1 | | | | | | 1 | | | | | | | 2 | 1 | 1 | 1 | 15 1.3 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia, Diffuse | | | | | | | | | | | | | | | | | | | 1 3.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Lab: NCTR

CD Rat Female
F1 100PPM/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 | 7 | 7 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 4 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 0 | 7 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | |
| | 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 6 | 7 | 7 | 1 | 1 | 1 | |
| | 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 | 9 | | | |
| Hyperplasia, Focal | | 2 | | | | | | | | | | | | | | | | | | 5 | 1.4 | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | 42 | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | X | | | | | | | | | | | | | | | | | 1 | | |
| Pars Distalis, Hyperplasia | | 2 | | | | | 2 | 2 | | | | | | | | | | | | 1 | 6 | 1.7 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| C Cell, Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Cyst, Squamous | | | 1 | | | | | | | | | | | | | | | | | 1 | 7 | 1.0 |
| Follicular Cel, Atrophy | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Duct, Dilatation | | 2 | | | | | | | | 3 | | | | | | | | | | 7 | 2.6 |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | 3 | 1.0 |
| Inflammation | | 2 | 1 | 3 | | | 1 | 2 | 2 | 1 | 1 | | 1 | | 2 | 1 | 1 | | | 29 | 1.5 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | | | | | | | 1 | 3 | 2 | 2 | 2 | | 1 | 3 | | 2 | | | | 28 | 2.0 |
| Cyst | X | X | | | | | X | | | | | X | X | X | | | | | | 16 | |

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

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CAS Number: 446-72-0

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 0 | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | 21 1.5 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | 26 1.5 |
| Metaplasia | | | | | | | | | | | | | | | | | | | 5 1.8 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 48 | |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node | + | + | + | + | | | | | | | | | | | | | | 10 | |
| Axillary, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Lumbar, Degeneration, Cystic | 3 | | | | | | | | | | | | | | | | | | 4 2.3 |
| Lumbar, Infiltration Cellular, Plasma Cell | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | 7 2.3 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Plasma Cell | 2 | 1 | 2 | | | | | | | | | | | | | | | | 43 1.6 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

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

+ ..Tissue examined microscopically

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X ..Lesion present

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CD Rat Female
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|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| | 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 | | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | |
| 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 6 | 7 | 7 | 1 | |
| 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 | 9 | |

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 2 | 3.0 | |
| Inflammation, Granulomatous | 2 | 2 | | | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 47 | 1.9 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hematopoietic Cell Proliferation | 1 | | | | | | | 1 | | | | | | | | | | | 8 | 1.8 | |
| Lymphocyte, Atrophy | | | | | | | | | | | | 3 | | | | | | | 3 | 2.7 | |
| Pigmentation | | 1 | | | 2 | 1 | 2 | | 3 | 1 | | 2 | 2 | | | | | | 19 | 1.8 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Atrophy | | | | | | | | | 3 | | | | 2 | | | | | | 9 | 2.6 | |
| Cyst | | 2 | | | 2 | | 1 | | | | | 1 | | | | 1 | 1 | | 13 | 1.5 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | 2 | | | | | | 2 | 1.5 | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolus, Hyperplasia | | | | | | | | 1 | | | 1 | 1 | 1 | | | | | | 10 | 1.1 |
| Atypical Focus | | | | | | | | | | | X | X | | | | | | | 7 | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lactation | 1 | | 1 | 1 | 2 | | | | 1 | 1 | 1 | 2 | 2 | 1 | 2 | | | | 33 | 1.5 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Foot, Inflammation, Chronic | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | | 36 | 2.8 |
| Lip, Inflammation, Chronic | 3 | | | | | | | | | | | | | | | | | | 1 | 3.0 |

Musculoskeletal System

| | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | 1 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Date Report Requested: 10/22/2014

Time Report Requested: 17:34:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM/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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | 7 | 7 | 1 |
| | 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 |
| | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 | 9 |

*TOTALS

Nervous System

| | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Compression | | | | | | | | | | 1 | | 1 | 2 | | 3 | | | 3 | 17 1.9 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | 2 2.5 | |
| Hydrocephalus | | | | | | | | | | | | | | | | | | 2 1.5 | |

Respiratory System

| | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | 3 | | 1 | | | | | | 12 1.6 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | 1 4.0 |
| Upper Molar, Inflammation | | | | | | | | | | | | | | | | | | 2 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

Special Senses System

| | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 37 |
| Bilateral, Lens, Cataract | | | | | | | | | | | | | 3 | | | | | 3 2.3 |
| Bilateral, Retina, Degeneration | 2 | | | | | | | | | 3 | | | | | | | | 2 2.5 |
| Polyarteritis | | | | | | | | | | | | | 1 | | | | | 1 1.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | 5 2.6 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 36 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 100PPM/CTL

| DAY ON TEST | *TOTALS | | | | | | | | | | | | | | | | | |
|---------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| | 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 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 3 | 0 | 7 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| 4 | 4 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | 7 | 1 | 1 |
| 7 | 8 | 9 | 1 | 2 | 0 | 7 | 3 | 4 | 6 | 4 | 5 | 8 | 9 | 3 | 1 | 5 | 8 | 9 |
| Epithelium, Degeneration | | | | 1 | 2 | 1 | | 1 | | | | 1 | | | 1 | 3 | | 17 1.7 |
| Hypertrophy | | | | | | | | | | | | 1 | | | | | | 4 1.5 |
| Urinary System | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | X | | | | X | X | | | | X | X | | X | | | | | 16 |
| Epithelium, Pelvis, Hyperplasia | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infarct | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | 1 | | | | | | | | | | 3 1.3 |
| Nephropathy | | | | | | | | | 2 | | 1 | | | | | | | 5 1.6 |
| Pelvis, Mineralization | 1 | 1 | | | 1 | | | | 1 | 1 | | | 2 | | 2 | 1 | 2 | 21 1.3 |
| Renal Tubule, Mineralization | 2 | 1 | 2 | 1 | 1 | | 2 | 3 | 2 | 2 | | 1 | | 3 | 2 | | | 33 1.7 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 48 |
| Mineralization | | | | | | | | | | | | | | | | | | 1 3.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/CTL

Alimentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:46

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:46

First Dose M/F: NA / NA

Lab: NCTR

General Body System

Tissue NOS

Genital System

Clitoral Gland

Duct. Dilatation

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

| ..Insufficient tissue

A ..Autolysis precludes evaluation

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:47

First Dose M/F: NA / NA

Lab: NCTR

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:47

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/CTL

| CD Rat Female
F1 500PPM/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 | |
| | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | |
| | 7 | 1 | 0 | 1 | 2 | 4 | 8 | 9 | 0 | 0 | 1 | 4 | 4 | 4 | 5 | 5 | 6 | 7 | 6 | 7 | 7 | 8 | 9 | 9 | 0 | |
| | 6 | 8 | 7 | 7 | 0 | 0 | 7 | 5 | 0 | 2 | 4 | 8 | 8 | 3 | 0 | 7 | 1 | 1 | 9 | 3 | 6 | 8 | 6 | 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 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | |
| | 6 | 9 | 2 | 2 | 2 | 3 | 4 | 0 | 0 | 1 | 1 | 2 | 8 | 8 | 9 | 9 | 0 | 1 | 3 | 3 | 3 | 4 | 6 | 7 | 7 | |
| | 8 | 6 | 2 | 9 | 1 | 5 | 0 | 8 | 3 | 5 | 9 | 8 | 9 | 1 | 7 | 8 | 7 | 3 | 5 | 8 | 5 | 9 | 7 | 9 | 2 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Plasma Cell | 2 | 1 | | 1 | 2 | | 1 | 2 | | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 1 | 3 | 3 | 2 | 1 | 2 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Granulomatous | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pigmentation | 1 | | 2 | 2 | | 3 | 2 | 3 | | 2 | 2 | | 3 | | 1 | 2 | | 1 | 2 | 2 | | 1 | 2 | 2 | 2 | 1 |
| Red Pulp, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | 2 | | 1 | | 1 | | | 2 | |
| Cyst | | | | | | | | | | | | | | | | | | 1 | 2 | 1 | 1 | | | | 2 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:47

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/CTL

| CD Rat Female
F1 500PPM/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 |
| 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 |
| 7 | 1 | 0 | 1 | 2 | 4 | 8 | 9 | 0 | 0 | 1 | 4 | 4 | 4 | 5 | 5 | 6 | 7 | 6 | 7 | 8 | 9 | 9 | 0 | 2 | 3 | 3 |
| 6 | 8 | 7 | 7 | 0 | 0 | 7 | 5 | 0 | 2 | 4 | 8 | 8 | 3 | 0 | 7 | 1 | 1 | 9 | 3 | 6 | 8 | 6 | 5 | 4 | 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 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| 6 | 9 | 2 | 2 | 2 | 3 | 4 | 4 | 0 | 1 | 1 | 2 | 2 | 8 | 9 | 9 | 0 | 1 | 3 | 3 | 3 | 4 | 5 | 6 | 7 | 9 | 9 |
| 8 | 6 | 6 | 2 | 9 | 1 | 5 | 0 | 8 | 3 | 5 | 8 | 9 | 1 | 7 | 8 | 7 | 3 | 5 | 4 | 5 | 6 | 7 | 9 | 2 | 4 | 3 |

Respiratory System

Special Senses System

| | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + |
| Cornea, Ulcer | | | | | | | | | | 4 |
| Retina, Degeneration | | | | | | | | | | |
| Harderian Gland | | | + | + | | | | | | |
| Epithelium, Degeneration | | | | | | | | | | 1 |
| Hypertrophy | | | | | | | | | 1 | 1 |
| Lacrimal Gland | | | + | | | | | | | |

Metaplasia

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

± ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A. Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:48

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F1 500PPM/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 | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | 7 | 1 | 0 | 1 | 2 | 4 | 8 | 9 | 0 | 0 | 1 | 4 | 4 | 4 | 5 | 5 | 6 | 7 | 6 | 7 | 7 | 8 | 9 | 9 | 0 | 0 | 2 | 3 | |
| | 6 | 8 | 7 | 7 | 0 | 0 | 7 | 5 | 0 | 2 | 4 | 8 | 8 | 3 | 0 | 7 | 1 | 1 | 9 | 3 | 6 | 8 | 6 | 5 | 4 | 5 | 3 | 7 | 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 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 |
| | 6 | 9 | 2 | 2 | 2 | 3 | 4 | 5 | 0 | 8 | 3 | 5 | 9 | 8 | 9 | 1 | 7 | 8 | 7 | 3 | 3 | 5 | 4 | 5 | 6 | 7 | 9 | 3 | |
| | 8 | 6 | 2 | 2 | 9 | 1 | 5 | 0 | 8 | 3 | 5 | 9 | 8 | 9 | 1 | 7 | 8 | 7 | 3 | 3 | 5 | 4 | 5 | 6 | 7 | 9 | 2 | 4 | 5 |

Cyst

x

Inflammation

Nephropathy

Pelvis, Mineralization

Renal Tubule, Mineralization

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

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:48

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/CTL

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| | 7 | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 | 8 8 8 9 4 3 3 4 4 4 4 4 5 8 8 8 9 0 0 0 0 | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | 0 | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 5 5 5 6 6 6 6 6 6 7 7 7 8 8 8 8 8 8 8 8 9 | 3 5 5 1 4 4 5 6 6 0 0 5 0 1 1 4 6 7 1 1 6 | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 8 3 4 9 8 9 5 8 9 6 7 0 8 7 8 0 9 6 6 6 | *TOTALS | | | | | | | | | | | | | | | | | |
| Alimentary System | | | | | | | | | | | | | | | | | | | |
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | 1 | 1 | | | 1.0 |
| Basophilic Focus | | | | | | | | | | | | | | | X | | | | 6 |
| Bile Duct, Hyperplasia | 2 | | 1 | 2 | | 1 | | | | 1 | 2 | | | 1 | | 1 | 13 | 1.5 | |
| Biliar Tract, Fibrosis | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Cyst | | | | | | | | | | | | | | | X | | | 3 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Eosinophilic Focus | | | X | | | | | | | | | | | | X | | | 4 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | 2 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Necrosis | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | 3 | 1.3 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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

Experiment Number: 99930-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: Endocrine disruptor (Genistein)
CAS Number: 446-72-0

Date Report Requested: 10/22/2014
 Time Report Requested: 17:34:48
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 500PPM/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 | 7 |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | 2 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinar Cell, Degeneration | | | | | | | | | | | | | | | | | | | | 14 1.2 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Parotid GI, Inflammation | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | 2 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | 28 1.2 |
| Endocrine System | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Degeneration, Cystic | 4 | 3 | 2 | 1 | 1 | 3 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 45 2.0 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:49

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/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 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 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 | |
| | | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | | 3 | 5 | 5 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 5 | 0 | 1 | 1 | 4 | 6 | 7 | 1 |
| | | 8 | 3 | 4 | 9 | 8 | 9 | 5 | 8 | 9 | 6 | 7 | 0 | 8 | 7 | 8 | 0 | 9 | 6 | 6 |
| Hyperplasia | | 1 | | | | 1 | | | 1 | 2 | | | | | | 1 | 2 | | | 11 1.3 |
| Hypertrophy | | | 2 | 2 | 1 | | 2 | 3 | 1 | | | | | | | 3 | | | | 18 1.9 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | 48 |
| Hyperplasia, Focal | | | | 3 | | | 1 | 2 | 2 | | | | | | | | | | | 5 1.8 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Parathyroid Gland | | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 43 |
| Hyperplasia, Diffuse | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | 2 2.0 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Cyst, Squamous | | | | 1 | | | | 1 | 1 | | | | | | | 3 | 1 | 1 | | 8 1.3 |
| Follicular Cel, Atrophy | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Follicular Cel, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 1.0 |

General Body System

Tissue NOS

1

Genital System

Clitoral Gland

+ 49

Duct, Dilatation

3 4 3 11 2.5

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:49

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female
F1 500PPM/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 |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 9 | 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 |
| | | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 9 | 9 |
| | | 3 | 5 | 5 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 5 | 0 | 1 | 1 | 4 | 6 | 7 |
| | | 8 | 3 | 4 | 9 | 8 | 9 | 5 | 8 | 9 | 6 | 7 | 0 | 8 | 7 | 8 | 0 | 9 | 6 |
| *TOTALS | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Inflammation | | 4 | 1 | | | | | | | 1 | 3 | | 3 | 2 | | | 2 | | 23 2.0 |
| Parenchym Cell, Degeneration | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Ovary | | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 |
| Atrophy | | 1 | 2 | 2 | 3 | 2 | 2 | | 3 | | | 2 | 2 | 2 | | 3 | 2 | | 42 2.4 |
| Cyst | | X | X | X | X | | X | | X | | | X | | X | X | | | | 18 |
| Hyperplasia, Stromal | | | | | | 2 | | | | 1 | | | 2 | | | 1 | 2 | 2 | 17 1.7 |
| Serosa, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | 1 1.0 |
| Oviduct | | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | 47 |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cervix, Muscularis, Hypertrophy | | | | | | | | | | | | | | | | | | | 2 |
| Hyperplasia, Cystic | | | 3 | 4 | 2 | 1 | 2 | | 2 | 3 | | 3 | 1 | | | 3 | 2 | 3 | 33 2.1 |
| Hyperplasia, Focal | | | | | | | | | | 3 | | | | | | | | | 1 3.0 |
| Metaplasia | | | | | | | | | | | | 1 | | 1 | | | 2 | | 7 1.6 |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | 1 | | | | | | | | | | | 5 1.8 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hypocellularity | | | | | | | | | | | | | | 2 | | | | | 1 2.0 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node | | + | | + | | | | | | | | | | | | + | + | + | 9 |
| Lumbar, Degeneration, Cystic | | 2 | | | | | | | | | | | | | | 1 | 2 | | 3 1.7 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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Date Report Requested: 10/22/2014

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/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 | 7 | | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | |
| | | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | | |
| Lumbar, Infiltration Cellular, Plasma Cell | 2 | | | | | | | | | | | | | | | | | | 1 | 2 | 2 | 6 | 1.7 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pancreatic, Hemorrhage | 2 | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | 2 | | | 1 | 2.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 2 | | | 2 | 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Infiltration Cellular, Plasma Cell | | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | | 45 | 1.8 | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Granulomatous | | 2 | | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | | 45 | 1.6 | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 2 | | | | | | | | 2 | 2 | | 8 | 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lymphocyte, Atrophy | | | | | | | | | | | | | | | | | | | | | | 4 | 2.5 |
| Pigmentation | | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 1 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | 34 | 1.9 | |
| Red Pulp, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | 1 | 2.0 |
| Thymus | | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | 47 | | |
| Atrophy | | | | | | | | | | 1 | | 2 | | | | | | 1 | | | 9 | 1.8 | |
| Cyst | | | | | | | | | | 3 | 2 | | | | | | | 1 | 1 | 1 | 20 | 1.7 | |

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

+ ..Tissue examined microscopically

M ..Missing tissue

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A ..Autolysis precludes evaluation

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Date Report Requested: 10/22/2014

Time Report Requested: 17:34:49

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/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 |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 9 | 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 |
| | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 3 | 5 | 5 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 5 | 0 | 1 | 1 | 4 | 6 | 7 |
| | 8 | 3 | 4 | 9 | 8 | 9 | 5 | 8 | 9 | 6 | 7 | 0 | 8 | 7 | 8 | 0 | 9 | 6 |
| | 3 | | | | | | | | | | | | | | | | | |

*TOTALS

1 3.0

Epithel Cell, Hyperplasia

3

Integumentary System

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolus, Hyperplasia | 1 | 3 | 1 | 1 | 1 | 1 | | | | 1 | 1 | | | | 2 | 2 | 1 | 15 1.6 |
| Atypical Focus | X | X | X | X | | | | | | X | X | | | | X | | | 11 |
| Galactocele | | | | | | | | | | 2 | | | | | | | | 2 2.0 |
| Inflammation | | | 3 | | | | | | | | | | | | | | | 1 3.0 |
| Lactation | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 40 1.6 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Foot, Inflammation, Chronic | 3 | 3 | 1 | 3 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 3 | 35 2.4 |

Musculoskeletal System

| | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Bone, Tibia | | | | | | | | | | | | | | | | 1 | | |
| Malformation | | | | | | | | | | | | | | | | | 1 | |

Nervous System

| | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | 1 | 1 | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | | 2 | | | 31 1.9 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hydrocephalus | | | | | | | | | | | | | | | 1 | | 2 | 1.0 |

Respiratory System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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Date Report Requested: 10/22/2014

Time Report Requested: 17:34:50

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/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 |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 9 | 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 |
| | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 3 | 5 | 5 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 5 | 0 | 1 | 1 | 4 | 6 | 7 |
| | 8 | 3 | 4 | 9 | 8 | 9 | 5 | 8 | 9 | 6 | 7 | 0 | 8 | 7 | 8 | 0 | 9 | 6 |
| | | | | | | | | | | | | | | | | | | |

*TOTALS

Respiratory System

| | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar Epith, Hyperplasia | | | | | | | | | | | | | | | | | | 1 1.0 |
| Infiltration Cellular, Histiocyte | | | | | 1 | | | 1 | | 2 | 1 | | 1 | | 2 | 2 | 3 | 20 1.7 |
| Inflammation | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | | | | | | | | | | | | 4 1.3 |
| Nasolacrim Dct, Inflammation | | | | | | | | | | | | | | | | | | 4 1.5 |
| Upper Molar, Inflammation | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

Special Senses System

| | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 28 |
| Cornea, Ulcer | | | | | | | | | | | | | | | | | | 1 4.0 |
| Retina, Degeneration | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| Epithelium, Degeneration | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | | | | | 13 1.5 |
| Hypertrophy | | | | | | | | | | | | | | | | | | 5 1.0 |
| Lacrimal Gland | + | | | | | | | | | | | | | | | | | 2 |
| Metaplasia | 1 | | | | | | | | | | | | | | | | | 1 1.0 |

Urinary System

| | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/22/2014

Time Report Requested: 17:34:50

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 500PPM/CTL

| DAY ON TEST | CD Rat Female F1 500PPM/CTL | | | | | | | | | | | | | | | | | |
|-------------|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| | 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 |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 8 | 8 | 8 | 9 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 8 | 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 |
| | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 3 | 5 | 5 | 1 | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 5 | 0 | 1 | 1 | 4 | 6 | 7 |
| | 8 | 3 | 4 | 9 | 8 | 9 | 5 | 8 | 9 | 6 | 7 | 0 | 8 | 7 | 8 | 0 | 9 | 6 |
| | X | X | | X | X | | X | X | X | X | X | X | X | X | X | X | X | 19 |
| | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | 1.0 |
| | 1 | 1 | | | | | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | | | | | | | 1.4 |
| | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | 23 |
| | | | | | | | | | | | | | | | | | | 1.2 |
| | 1 | 1 | 1 | | 2 | | 2 | 2 | 2 | | | | | | | | | 36 |
| | | | | | | | | | | | | | | | | | | 1.7 |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

** END OF REPORT **

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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