

SC-19192: 115 WEEK ORAL TUMORIGENICITY STUDY IN THE RAT

VOLUME II

Postmortem Evaluation

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## INDIVIDUAL VALUES



### Autopsy Organ Weights



AUTOPSY ORGAN WEIGHTS

TREATMENT DAY 805

INDIVIDUAL VALUES FOR MALES

TREATMENT GROUP AND ANIMAL NO	BODY WTS G	HEART G	KIDNEYS G	LIVER G	ADRENALS MG	THYROID MG	PITUITARY MG	VEN PROS MG	SEM VES MG	TESTES G
CONTROL										
A02CH	400	2.04	3.57	14.7	202.3	37.2	LOST	321	911	2.23
A12CH	511	1.87	3.75	14.4	142.9	25.5	12.9	273	322	2.65
A15CH	529	1.65	4.11	14.3	71.3	41.3	14.5	307	79	6.53
A27CH	587	1.94	4.85	15.7	115.2	62.3	10.0	384	635	2.49
C25CH	480	2.08	8.58	19.0	123.5	52.5	13.5	563	485	2.02
C26CH	608	1.88	5.03	16.5	175.6	33.1	29.1	291	256	4.08
C30CH	475	1.61	3.54	11.2	86.7	23.7	12.0	282	116	2.37
E13CH	630	1.70	4.20	16.4	90.7	50.7	17.0	573	274	3.69
E16CH	412	1.62	3.20	11.4	81.5	28.9	25.7	302	173	2.45
E25CH	654	2.14	7.11	21.8	83.7	48.6	17.1	714	378	3.88
E30CH	546	2.06	6.84	22.3	87.2	56.3	14.1	626	336	2.65
G01CH	559	1.80	4.20	16.7	60.0	21.5	28.0	670	450	3.33
G23CH	686	2.28	6.70	23.2	66.5	51.0	10.0	955	446	3.29
L01CH	628	1.92	6.71	22.9	73.7	60.0	46.8	696	451	2.98
L09CH	737	1.78	3.92	18.5	83.4	40.5	20.5	893	316	3.69
L20CH	472	2.34	3.84	16.5	103.2	32.8	23.2	219	151	2.34
L23CH	536	2.19	6.15	19.2	80.0	194.5	20.8	649	355	3.77
L25CH	668	2.11	3.53	15.4	88.4	48.0	25.7	634	360	3.53
L29CH	527	2.15	4.47	16.4	141.5	73.0	24.2	364	276	2.76
LOW										
A05LM	389	2.28	5.21	14.4	85.2	30.6	195.5	1210	242	2.42
A13LM	601	2.06	4.27	17.2	681.3	31.0	11.1	306	862	3.33
A26LM	616	2.05	5.11	20.0	95.0	45.2	32.6	78	179	2.30
C22LM	425	2.13	3.32	14.3	185.6	32.0	52.5	1065	300	1.83
C27LM	465	1.66	7.40	17.6	75.6	90.3	16.1	470	168	2.68
C28LM	494	1.73	5.00	16.0	77.2	31.1	12.1	607	206	2.36
E15LM	521	1.57	3.47	14.5	61.5	24.5	13.5	316	265	3.41
G09LM	653	1.55	3.77	18.6	57.5	42.4	22.0	385	346	3.23
G25LM	615	1.82	3.67	15.2	42.5	22.2	14.0	582	315	3.70
J08LM	566	1.80	4.76	19.6	80.3	22.2	23.2	705	345	3.14
J09LM	531	1.79	5.69	20.2	101.8	38.6	10.9	442	207	2.03
J16LM	672	1.66	3.84	19.5	62.1	27.9	3.2	421	270	LOST
J17LM	607	1.56	3.18	13.8	52.8	23.8	1.9	407	312	2.45
L03LM	525	1.89	4.06	15.5	54.2	36.3	17.4	2070	344	2.51
L17LM	465	1.57	3.70	13.1	75.2	29.7	17.5	456	234	3.08
L28LM	456	2.05	4.59	13.8	72.5	37.5	14.7	747	344	2.51



SC-191923: 115 WEEK ORAL TUMORIGENICITY STUDY - RAT; PT00988573

## AUTOPSY ORGAN WEIGHTS

TREATMENT DAY 805  
INDIVIDUAL VALUES FOR MALES

TREATMENT GROUP AND ANIMAL NO	BODY WTS G	HEART G	KIDNEYS G	LIVER G	ADRENALS MG	THYROIDES MG	PITU MG	VEN PROS MG	SEM VES MG	TESTES G
MEDIUM										
A084M	523	1.62	3.93	15.2	70.7	35.0	19.1	611	1780	3.01
A224M	490	1.81	7.39	20.6	89.1	48.2	20.9	570	734	2.74
A254M	549	1.78	5.31	17.1	56.0	31.1	24.0	232	90	3.15
C014M	364	2.09	9.40	19.3	151.1	38.4	13.8	429	274	0.90
C054M	622	1.72	3.92	13.5	74.2	28.0	16.7	383	179	3.25
C074M	538	1.70	6.02	16.6	61.1	15.0	5.5	851	286	2.56
C134M	400	1.32	3.46	9.9	62.4	17.1	271.6	295	153	2.84
E104M	380	1.84	3.19	13.1	52.1	40.2	10.8	517	225	2.43
E174M	692	1.47	3.63	14.9	67.5	34.2	87.5	1393	317	3.04
E204M	421	1.87	3.20	10.8	60.6	35.2	20.8	325	222	3.60
E244M	614	1.73	3.68	13.9	56.0	27.9	13.8	879	253	3.21
G034M	531	1.77	3.57	14.3	42.1	20.2	11.2	1083	358	3.27
G214M	698	2.11	5.54	21.9	83.0	24.5	72.0	88	388	2.83
G224M	640	1.69	4.35	16.2	65.0	42.8	30.0	937	360	3.47
J104M	517	1.37	3.76	13.9	42.8	34.3	11.8	643	303	3.28
J144M	573	2.01	3.40	12.6	50.6	30.9	14.2	508	297	3.44
L084M	544	1.71	5.40	20.6	30.3	31.7	15.7	558	381	2.57
L154M	477	1.87	4.70	15.6	71.9	43.3	18.1	661	401	3.42
L184M	625	1.83	4.19	16.1	49.7	31.1	22.6	645	453	3.30
HIGH										
A014M	453	1.44	4.14	18.7	44.1	14.1	0.8	507	201	2.88
A094M	450	1.51	3.88	12.1	103.5	63.4	15.8	546	198	3.25
A294M	536	1.36	3.30	13.6	91.5	44.5	22.6	431	645	3.89
C024M	668	1.46	1.46	16.1	76.3	36.2	14.6	610	365	3.17
C244M	485	1.74	3.86	15.4	80.0	50.6	20.0	1407	471	3.46
E144M	706	1.66	11.74	21.4	117.0	70.9	25.9	937	313	3.14
E214M	557	1.68	4.57	15.7	55.5	17.1	2.9	334	339	3.86
G174M	370	1.34	3.76	13.0	40.1	23.0	14.0	744	348	2.85
G304M	459	1.36	3.98	14.5	73.5	39.0	19.0	378	196	2.83
J064M	696	1.75	4.88	19.2	66.5	34.0	26.5	1052	382	3.75
J074M	467	1.52	3.82	14.7	52.3	38.8	12.0	320	214	2.77
J124M	367	1.60	3.62	13.4	72.0	21.4	3.0	354	150	2.64
J224M	579	1.49	4.46	18.0	41.6	24.4	13.3	433	305	3.51
J304M	374	1.38	3.19	12.4	46.9	41.7	11.0	444	156	1.26
L044M	672	1.57	4.37	20.1	90.4	24.8	25.3	572	330	3.85
L224M	645	1.57	4.25	16.4	51.5	51.2	14.7	815	379	3.71
L244M	577	1.56	4.15	15.8	54.7	40.0	20.0	626	460	3.30
L274M	338	1.52	3.00	10.4	32.2	32.5	27.0	369	96	3.24

## SC-19192: 115 WEEK ORAL TUMORIGENICITY STUDY - RAT: PT0988S73

## AUTOPSY ORGAN WEIGHTS

TREATMENT DAY 805

## INDIVIDUAL VALUES FOR FEMALES

TREATMENT GROUP AND ANIMAL NO	BODY WTS G	HEART G	KIDNEYS G	LIVER G	ADRENALS MG	THYROID MG	PITUITARY MG	OVARIES MG	UTERUS MG
CONTROL									
B06CF	554	1.39	2.73	13.5	83.1	30.0	86.8	50.0	2146
B11CF	500	1.46	2.61	14.0	76.1	32.4	18.8	102.7	722
B16CF	462	1.41	2.90	14.4	151.1	31.9	89.2	72.1	1738
D05CF	393	1.29	2.30	11.2	99.5	24.0	20.0	108.5	828
D12CF	453	1.27	3.10	16.0	153.0	33.0	20.0	129.0	771
D18CF	486	1.51	2.57	13.4	79.3	31.5	19.0	43.5	1035
D19CF	455	1.36	2.60	13.7	30.5	35.0	26.0	115.0	662
F13CF	463	1.43	2.52	12.8	146.5	49.9	26.1	75.1	650
F15CF	513	1.31	2.77	16.5	116.6	35.8	50.9	102.0	455
F16CF	451	1.15	2.56	12.6	65.9	34.8	85.4	74.5	NOT AV
F17CF	312	1.15	2.56	10.3	171.5	37.5	18.0	36.7	535
F26CF	314	1.21	2.26	11.5	106.0	46.8	26.6	55.9	1480
F30CF	479	1.57	3.15	15.4	104.0	50.0	63.4	268.0	1120
H10CF	491	1.15	2.37	13.7	58.0	25.9	25.6	104.0	765
H11CF	626	1.42	2.67	25.0	152.5	26.5	64.7	45.5	570
H19CF	376	1.06	2.30	10.5	50.3	15.5	415.4	111.9	961
H21CF	550	1.40	2.87	17.8	208.2	107.2	44.1	145.2	789
H30CF	412	1.18	1.90	9.4	71.1	36.4	26.2	54.7	714
K13CF	831	1.51	3.09	18.4	116.1	21.3	26.3	51.7	705
K25CF	479	1.54	2.93	14.8	70.0	20.0	221.2	107.6	1188
K29CF	432	1.32	2.49	13.0	78.4	31.0	23.8	62.5	1497
M04CF	458	1.53	3.02	14.7	71.7	21.5	20.5	38.9	1198
M10CF	411	1.50	3.03	12.7	100.0	23.2	90.3	1158.1	NOT AV
M15CF	352	1.50	2.95	16.2	92.7	27.0	118.8	90.8	1052
M22CF	402	1.26	2.94	11.1	93.1	37.5	100.7	136.2	1024

SC-19192: 115 WEEK ORAL TUMORIGENICITY STUDY - RAT: PT#0988S73

## AUTOPSY ORGAN WEIGHTS

TREATMENT DAY 805  
INDIVIDUAL VALUES FOR FEMALES

TREATMENT GROUP AND ANIMAL NO	BODY WTS G	HEART G	KIDNEYS G	LIVER G	ADRENALS MG	THYROIDS MG	PITU MG	OVARIES MG	UTERUS MG
LOW									
925LF	472	1.31	2.83	12.0	346.6	25.9	57.1	98.1	1159
927LF	406	1.26	2.50	10.0	46.4	28.1	7.7	394.6	731
011LF	361	1.30	2.18	9.5	75.5	34.5	25.5	104.5	130
025LF	392	1.52	2.61	12.6	71.0	33.2	50.0	243.9	748
030LF	299	1.46	2.61	11.7	111.0	36.5	48.8	40.0	336
F04LF	421	1.30	2.60	14.3	98.1	25.8	39.8	131.1	544
F08LF	338	1.31	2.30	9.8	65.9	33.9	31.1	36.2	935
F12LF	502	0.91	2.14	12.6	61.9	56.1	85.9	37.2	477
F20LF	332	0.97	2.40	11.8	91.3	25.2	30.1	57.3	547
K08LF	294	1.15	2.87	11.4	77.5	22.5	57.6	25.2	506
K27LF	433	1.49	2.41	14.9	184.7	66.9	247.6	29.0	NOT AV
M09LF	430	1.29	3.48	13.9	120.0	27.8	72.1	NOT AV	1017
M17LF	461	1.65	3.04	14.6	142.9	45.5	241.5	62.6	1918
M20LF	407	1.53	2.48	12.2	85.5	40.0	110.9	95.3	805
M23LF	401	1.10	2.20	11.6	61.4	25.5	51.9	47.9	751
MEDIUM									
304LF	454	1.16	2.19	11.7	109.3	24.1	45.0	32.9	687
305MF	413	1.20	2.60	12.9	76.1	23.2	10.0	123.9	1002
307MF	489	1.09	2.90	16.6	114.8	34.8	25.1	150.0	1083
323MF	485	1.23	2.76	14.4	54.8	43.2	57.1	40.0	1598
328MF	384	1.21	2.54	12.6	229.8	25.4	35.1	123.5	510
009MF	257	1.23	2.04	7.5	55.1	23.0	14.5	50.0	33
024MF	401	1.75	2.58	12.8	67.7	19.4	27.0	31.0	924
F02MF	365	1.34	3.26	14.0	199.2	29.1	38.1	145.5	1830
F10MF	362	1.12	2.63	12.4	90.6	40.1	22.9	64.0	1540
H28MF	447	1.47	2.82	14.6	78.3	31.5	20.2	35.2	761
K09MF	353	1.14	2.64	12.6	79.2	141.5	114.1	51.4	NOT AV
K14MF	501	1.25	2.73	13.2	83.4	36.1	20.0	138.9	779
K30MF	471	1.37	3.95	12.5	844.2	44.0	57.2	2550.4	793
M19MF	452	1.22	2.39	12.6	50.0	44.6	24.6	68.6	812
M28MF	416	1.07	2.36	15.0	199.2	27.8	365.3	64.4	419
M29MF	345	1.42	2.78	11.1	124.5	31.5	30.5	52.8	1410

SC-191924 115 WEEK ORAL TUMORIGENICITY STUDY - RAT; PT00988S73

## AUTOPSY ORGAN WEIGHTS

TREATMENT DAY 805

## INDIVIDUAL VALUES FOR FEMALES

TREATMENT GROUP AND ANIMAL NO	BODY WTS G	HEART G	KIDNEYS G	LIVER G	ADRENALS MG	THYROID MG	PITUITARY MG	OVARIES MG	UTERUS MG
HIGH									
B12HF	382	1.20	2.95	15.9	90.0	26.1	57.0	71.9	537
B13HF	293	1.04	2.41	11.3	50.0	23.4	5.8	71.2	718
B14HF	386	1.07	2.33	11.1	77.2	25.0	113.0	64.4	813
B20HF	395	1.01	2.53	10.9	63.8	42.3	19.5	78.2	1115
D03HF	304	1.55	2.69	10.0	50.0	22.5	23.5	3.0	655
D28HF	387	1.13	2.70	13.7	65.3	26.5	15.2	89.0	1301
F11HF	318	0.85	2.34	10.4	40.9	33.9	16.5	31.2	1480
F23HF	329	1.13	2.81	12.3	94.2	30.3	32.6	94.2	828
H05HF	375	1.02	2.62	12.1	82.6	23.1	7.4	38.7	1023
H07HF	294	0.95	2.40	10.4	60.8	18.8	15.8	112.0	903
H09HF	255	1.06	2.25	7.6	113.3	12.5	7.3	15.4	625
H15HF	319	0.99	2.17	10.3	56.0	44.9	17.9	1320.4	930
H18HF	307	1.08	2.67	10.0	87.1	30.0	139.5	87.5	639
H23HF	325	1.07	3.14	14.0	289.0	25.2	132.8	20.9	924
K05HF	321	1.23	2.25	11.3	35.5	13.1	10.8	50.1	374
K11HF	326	1.02	2.66	12.3	799.1	11.5	284.0	344.6	437
K24HF	340	1.18	3.28	11.4	113.0	25.4	25.3	53.1	1200
M02HF	358	1.27	2.72	13.6	77.3	17.0	102.5	33.5	864
M05HF	391	1.16	2.72	15.3	67.3	23.4	12.4	599.9	1741
M16HF	348	1.07	2.57	13.2	390.0	24.1	858.4	62.1	605
M30HF	451	1.42	2.66	13.1	57.0	38.3	20.0	67.0	813



## Postmortem Evaluation



Male Rat No. A2CM

Control Group (No. 1)

Path. No. 95588

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Focal adhesion.

Adrenal - Moderately enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Small fibrous nodule and dilated bronchi in one section.

Kidney - Mild focal chronic nephritis.

Pancreas - Focal chronic arteritis.

Adrenal - Severe angiectasis and medullary hyperplasia, unilaterally.

Testis - Mild tubular atrophy.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. A4CM

Control Group (No. 2)

Path. No. 95102

Gross: Non-survivor; found dead after 718 days on study.

Mammary gland - Small nodule in left inguinal region.

Lung - Nodular appearance with focal hyperemia.

Urinary bladder - Hard, yellow mass in the lumen.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Mild chronic murine pneumonia.

Heart - Focal fibrosis.

Kidney - Moderate chronic nephritis.

Liver - Moderate congestion; mild bile duct proliferation.

Mammary gland - Epidermal cyst.

Testis - Moderate tubular atrophy.

Seminal vesicle - Mild, glandular atrophy.

Prostate - Severe chronic prostatitis.

Urinary bladder - Well differentiated transitional cell carcinoma,  
grade 1.

Lymph node - Reactive hyperplasia.

Salivary gland - Severe desquamation of ductal epithelium.

Bone marrow - Mild hypercellularity.

Pancreas and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A6CM

Control Group (No. 3)

Path. No. 95495

Gross: Non-survivor; found dead after 747 days on study.

Lung - Nodular appearance with focal hyperemia.

Kidney - Light yellow discoloration with focal grayish areas.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild hypertrophy of left ventricle.

Kidney - Severe chronic nephritis.

Liver - Cholangioma.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Mild cortical hyperplasia.

Seminal vesicle - Severe acute vesiculitis.

Prostate - Severe chronic prostatitis.

Mesenteric vessels - Lumen filled with organized thrombi.

Spleen, pancreas, mammary gland, urinary bladder, lymph node, salivary gland, bone with bone marrow and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A7CM

Control Group (No. 4)

Path. No. 94056

Gross: Non-survivor; found dead after 557 days on study.

Small and large intestine, brain, and pituitary exhibit moderate autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Liver - Moderate congestion.

Spleen - Moderate pigmentation.

Pituitary - Eosinophilic adenocarcinoma of the anterior lobe.

Adrenal - Severe diffuse congestion.

Testis - Focal tubular atrophy.

Urinary bladder - Focal submucosal edema.

Small and large intestines, mammary gland, lymph node, brain, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A10CM

Control Group (No. 5)

Path. No. 95087

Gross: Non-survivor; found dead after 707 days on study.

All organs exhibit moderate autolysis.

Lung - Diffuse hyperemia; left lobes are consolidated.

Mammary gland - Several abscesses found in inguinal regions.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Moderate chronic nephritis.

Liver - Severe congestion.

Prostate - Mild glandular atrophy.

Mammary gland - Pilar sebaceous cyst.

Testis, lymph node, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. AllCM

Control Group (No. 6)

Path. No. 95505

Gross: Non-survivor; found dead after 748 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Pituitary - Chromophobe cell hyperplasia.

Brain - Focal abscess.

Spleen, pancreas, thyroid, mammary gland and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A12CM

Control Group (No. 7)

Path. No. 95589

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Numerous yellowish-white nodules.

Adrenal - Mild enlargement with numerous yellowish-white nodules, unilaterally.

Testis - Mild atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild chronic nephritis.

Adrenal - Severe angiectasis and medullary hyperplasia, unilaterally.

Testis - Mild, tubular atrophy.

Prostate - Mild glandular atrophy.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A15CM

Control Group (No. 8)

Path. No. 95590

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Pancreas - Mild ductal hyperplasia.

Thyroid - Mild follicular hyperplasia.

Testis - Interstitial cell tumor, unilaterally.

Prostate - Moderate glandular atrophy.

All other organs examined microscopically were unremarkable.

Male Rat No. A19CM

Control Group (No. 9)

Path. No. 96042

Gross: Non-survivor; found dead after 683 days on study.

Testis - Marked atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Moderate centrilobular necrosis.

Testis - Mild tubular atrophy.

Prostate - Mild glandular atrophy.

Small and large intestines, kidney, spleen, pancreas, pituitary, thyroid, adrenal, salivary gland, and brain exhibited moderate autolysis.

Mammary gland, nerve, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. A21CM

Control Group (No. 10)

Path. No. 93202

Gross: Non-survivor; found dead after 409 days on study.

Lymph node - Mild enlargement.

Stomach - Numerous discrete ulcerations.

Brain, pituitary, and intestines exhibit marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Mild focal chronic hemorrhagic gastritis of forestomach; submucosal edema.

Lung - Mild chronic interstitial pneumonitis.

Heart - Focal mononuclear infiltration.

Liver - Severe acute hepatitis and pericholangitis; fatty change; focal parenchymal hemorrhage.

Thyroid - Mild focal thyroiditis.

Testis - Mild tubular atrophy.

Prostate - Mild chronic prostatitis.

Urinary bladder - Moderate submucosal edema; calculus in the lumen.

Lymph node - Reactive hyperplasia and focal hemorrhage.

Small and large intestines, spleen, pancreas, pituitary, mammary gland, brain, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A27CM

Control Group (No. 11)

Path. No. 95591

Gross: Survivor; sacrificed by design after 805 days on study.

Testis - Mild atrophy, unilaterally.

Kidney - Small subcapsular cyst, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mild chronic nephritis; focal cystic dilatation of renal tubules.

Testis - Severe tubular atrophy, unilaterally.

Urinary bladder - Mild muscular hypertrophy.

All other organs examined microscopically were unremarkable.

Male Rat No. A30CM

Control Group (No. 12)

Path. No. 96043

Gross: Non-survivor; found dead after 536 days on study.

All organs exhibit marked autolysis, otherwise unremarkable.

Microscopic:

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Testis - Moderate tubular atrophy, unilaterally.

All examined organs exhibit moderate to severe autolysis.

Mammary gland, lymph node, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C3CM

Control Group (No. 13)

Path. No. 92952

Gross: Non-survivor; found dead after 353 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia.

Heart - Mild congestion.

Kidney - Moderate congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion.

All examined organs exhibit moderate to severe autolysis.

Pituitary, mammary gland, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C8CM

Control Group (No. 14)

Path. No. 93033

Gross: Non-survivor; found dead after 354 days on study.

Small and large intestines exhibit mild autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe acute focal bronchitis.

Kidney - Dilatation of tubules with eosinophilic casts.

Liver - Moderate congestion.

Spleen - Pigmentation.

Prostate - Focal intraglandular mineral deposit.

Pituitary, thyroid, mammary gland, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C9CM

Control Group (No. 15)

Path. No. 95792

Gross: Non-survivor; found dead after 658 days on study.

Marked nodular mass measuring 3 X 3 X 2 cm in lower abdominal cavity.

All organs exhibit marked autolysis.

Microscopic:

Lung - Mild chronic murine pneumonia.

Heart - Mild myocarditis.

Kidney - Mild chronic nephritis.

Liver - Mild congestion.

Spleen - Pigmentation.

Testis - Moderate chronic arteritis.

Tissue mass - Multiloculated purulent abscesses of seminal vesicle, prostate, and urinary bladder wall with adherent striated muscle fibers and moderate focal autolysis.

Small and large intestines, pituitary, thyroid, mammary gland, and lymph node were not examined.

All organs examined microscopically exhibited moderate to severe autolysis.

Male Rat No. C10CM

Control Group (No. 16)

Path. No. 95086

Gross: Non-survivor; found dead after 704 days on study.

Lung - Multiple yellowish-white nodules on the surface.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Moderate congestion; dilated tubules filled with eosinophilic casts.

Liver - Moderate congestion.

Adrenal - Moderate congestion.

Testis - Moderate diffuse atrophy and focal fibrosis of seminiferous tubules, bilaterally.

Prostate - Severe atrophy.

Mammary gland, seminal vesicle, lymph node, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C11CM

Control Group (No. 17)

Path. No. 92995

Gross: Non-survivor; found dead after 320 days on study.

Small and large intestines exhibit marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Moderate hypertrophy of left ventricle.

Kidney - Moderate congestion; dilated tubules filled with eosinophilic casts.

Liver - Mild congestion.

Spleen - Pigmentation.

Prostate - Moderate glandular atrophy.

Pituitary and salivary gland exhibit severe autolysis.

Thyroid, mammary gland, spinal cord, bone with bone marrow and eye were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. C17CM

Control Group (No. 18)

Path. No. 96044

Gross: Non-survivor; found dead after 542 days on study.

Tissue mass measuring 5 X 5 X 3 cm is located subcutaneously in the right cervical area.

All examined organs exhibit marked autolysis.

Microscopic:

Kidney - Mild congestion.

Liver - Mild congestion.

Mammary gland - Squamous cell carcinoma, well differentiated (tissue mass).

Eye - Mild scleritis; focal calcification of cornea.

Lymph node was not examined.

All organs examined microscopically exhibited mild to severe autolysis.

Male Rat No. C19CM

Control Group (No. 19)

Path. No. 96023

Gross: Non-survivor; found dead after 676 days on study.

Lung - All lobes exhibit numerous yellowish-white nodules.

Heart - Numerous yellowish-white, semi-firm nodules measuring 2-10 mm in diameter.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Severe focal myocarditis; focal abscess in left ventricle.

Kidney - Mild chronic nephritis.

Adrenal - Medullar hyperplasia.

Testis - Moderate tubular atrophy, bilaterally; focal interstitial cell hyperplasia, unilaterally.

Seminal vesicle - Focal vesiculitis.

Prostate - Moderate glandular atrophy.

Large intestine, mammary gland, lymph node, bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C21CM

Control Group (No. 20)

Path. No. 96045

Gross: Non-survivor; found dead after 602 days on study.

All examined organs exhibit marked autolysis.

Microscopic:

All examined organs exhibited severe autolysis and were excluded from the study.

Male Rat No. C25CM

Control Group (No. 21)

Path. No. 95592

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - All lobes appear consolidated with several small nodules on the surface.

Kidney - Mottled appearance with numerous subcapsular nodules measuring 2 mm in diameter.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia with focal adenomatosis.

Kidney - Severe chronic nephritis.

Liver - Mild pericholangitis; focal cytoplasmic degeneration; nodular hyperplasia.

Adrenal - Cortical adenoma.

Mammary gland - Focal dilatation of alveoli.

Testis - Mild focal chronic arteritis.

Brain - Unclassified metastatic carcinoma, primary lesion not determined.

All other organs examined microscopically were unremarkable.

Male Rat No. C26CM

Control Group (No. 22)

Path. No. 95593

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Moderate interstitial nephritis.

Liver - Focal hyperplasia.

Pancreas - Severe chronic arteritis.

Adrenal - Pheochromocytoma, unilaterally; focal cortical hyperplasia.

Omentum - Moderate chronic arteritis.

All other organs examined microscopically were unremarkable.

Male Rat No. C29CM

Control Group (No. 23)

Path. No. 96046

Gross: Non-survivor; found dead after 511 days on study.

All organs exhibit various degrees of autolysis.

Microscopic:

Kidney - Mild interstitial nephritis.

Liver - Moderate congestion with occasional foci of lymphocytic infiltration.

Testis - Moderate tubular atrophy.

Mammary gland and prostate were not examined.

All other examined organs exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. C30CM

Control Group (No. 24)

Path. No. 95594

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild focal interstitial nephritis.

Liver - Mild pericholangitis.

Pancreas - Focal sclerosing pancreatitis.

Thyroid - Focal squamous metaplasia.

Lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E1CM

Control Group (No. 25)

Path. No. 93034

Gross: Non-survivor; found dead after 355 days on study.

All examined organs exhibit marked autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Severe congestion.

Spleen - Pigmentation.

Pancreas - Fatty infiltration.

Mammary gland, lymph node, brain, spinal cord and eye were not examined.

All examined organs exhibited mild to moderate autolysis.



Male Rat No. E2CM

Control Group (No. 26)

Path. No. 95883

Gross: Non-survivor; found dead after 780 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Focal dilatation of small bronchi.

Liver - Patchy cytoplasmic vacuolization.

Thyroid - Focal squamous metaplasia.

Testis - Mild tubular atrophy, unilaterally; small spermatic cyst, unilaterally.

Prostate - Moderate glandular atrophy.

Eye - Focal corneal edema, unilaterally.

Mammary gland, lymph node and bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E4CM

Control Group (No. 27)

Path. No. 95106

Gross: Non-survivor; found dead after 721 days on study.

Brain - Dark gray spot on the right side of the cerebrum.

All examined organs exhibit marked autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Adrenal - Severe congestion of medulla.

Prostate - Severe acute prostatitis.

Brain - Severe meningitis; focal calcification in cerebellar cortex.

Mammary gland, lymph node and eye were not examined.

All organs examined microscopically exhibited mild to moderate autolysis.

Male Rat No. E5CM

Control Group (No. 28)

Path. No. 96067

Gross: Non-survivor; found dead after 473 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Stomach - Chronic ulcer.

Lung - Severe hyperemia.

Liver, mammary gland, lymph node, and spinal cord were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. E7CM

Control Group (No. 29)

Path. No. 94359

Gross: Non-survivor; found dead after 630 days on study.

Small and large intestines exhibit moderate autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia.

Kidney - Moderate interstitial nephritis; dilated tubules with eosinophilic casts.

Liver - Moderate congestion.

Adrenal - Mild congestion.

Brain - Astrocytoma invading hippocampus and cerebellum.

Small intestine, large intestine, mammary gland, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E11CM

Control Group (No. 30)

Path. No. 95793

Gross: Non-survivor; found dead after 649 days on study.

Lung - Mottled appearance with numerous subcapsular nodules.

Heart - Wall of the right ventricle markedly thickened.

Testis - Marked atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Small intestine - Focal fibrosis of mucosa.

Large intestine - Focal fatty infiltration of serosa.

Lung - Moderate chronic murine pneumonia.

Heart - Mild hypertrophy of right ventricle.

Liver - Moderate congestion; focal centrilobular necrosis.

Adrenal - Cortical nodular hyperplasia; severe congestion of medulla.

Testis - Mild tubular atrophy, bilaterally; focal medial calcification of one artery.

Urinary bladder - Mild diffuse interstitial edema.

Thyroid, mammary gland and lymph node were not examined.

All other organs examined microscopically exhibited mild to severe autolysis and were otherwise unremarkable.

Male Rat No. E13CM

Control Group (No. 31)

Path. No. 95595

Gross: Survivor; sacrificed by design after 805 days on study.

Eye - Corneal haziness in right eye.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis.

Liver - Focal nodular hyperplasia.

Eye - Mild subacute keratitis, unilaterally.

Lung and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E16CM

Control Group (No. 32)

Path. No. 95596

Gross: Survivor; sacrificed by design after 805 days on study.

Tissue mass - Spheroid, yellowish-white, firm mass measuring  
3 X 2.5 X 2 cm is located on the dorsal lateral side of the  
lumbar area.

Kidney - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate interstitial nephritis; pyelitis.

Liver - Mild pericholangitis.

Pancreas - Islet cell adenoma; focal sclerosing pancreatitis.

Adrenal - Pheochromocytoma, unilaterally.

Seminal vesicle - Tubular hyperplasia.

Prostate - Severe chronic prostatitis.

Urinary bladder - Focal submucosal edema.

Brain - Astrocytoma in medulla (lesion found in only one section).

Eye - Mild subacute keratitis.

Tissue mass - Subcutaneous fibroma.

Bone with bone marrow was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E22CM

Control Group (No. 33)

Path. No. 95088

Gross: Non-survivor; found dead after 708 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Focal perivascular lymphocytic infiltration; focal edema.

Heart - Focal fibrosis.

Kidney - Moderate interstitial nephritis; reticulum cell sarcoma in the capsule, metastatic.

Liver - Reticulum cell sarcoma, metastatic.

Pancreas - Reticulum cell sarcoma, metastatic.

Pituitary - Chromophobe adenoma.

Thyroid - Moderate epithelial hyperplasia.

Adrenal - Moderate fatty vacuolization of the cortex; focal necrosis of medulla.

Prostate - Reticulum cell sarcoma, metastatic.

Urinary bladder - Reticulum cell sarcoma, metastatic.

Spleen, mammary gland, seminal vesicle, lymph node, and eye were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. E25CM

Control Group (No. 34)

Path. No. 95597

Gross: Survivor; sacrificed by design after 805 days on study.

Kidney - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild interstitial pneumonitis.

Heart - Mild focal myocarditis.

Kidney - Severe interstitial nephritis.

Adrenal - Focal cortical hyperplasia.

Testis - Moderate chronic arteritis.

All other organs examined microscopically were unremarkable.

Male Rat No. F26CM

Control Group (No. 35)

Path. No. 95242

Gross: Non-survivor; found dead after 735 days on study.

Lung - Mottled appearance with numerous grayish subcapsular nodules.

All organs examined grossly exhibit mild autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild focal interstitial nephritis.

Liver - Moderate congestion and focal necrosis.

Spleen - Moderate chronic splenitis.

Pancreas - Focal atrophy.

Pituitary - Moderate congestion of anterior lobe.

Adrenal - Severe angiectasis.

Testis - Moderate tubular atrophy.

Seminal vesicle - Moderate chronic vesiculitis.

Prostate - Moderate glandular atrophy; moderate chronic prostatitis.

Brain - Mild congestion of parenchymal and leptomeningeal vessels.

Small and large intestines, mammary gland, lymph node, spinal cord,  
and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E30CM

Control Group (No. 36)

Path. No. 95598

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Heart - Focal myocarditis.

Kidney - Severe chronic nephritis.

Liver - Focal hyperplasia.

Pancreas - Moderate chronic arteritis.

Adrenal - Pheochromocytoma.

Testis - Moderate chronic arteritis.

Bone with bone marrow was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G1CM

Control Group (No. 37)

Path. No. 95599

Gross: Survivor; sacrificed by design after 805 days on study.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Focal interstitial nephritis.

Liver - Focal proliferation of small bile duct.

Pancreas - Focal sclerosing pancreatitis.

Pituitary - Cyst in pars intermedia.

Salivary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G7CM

Control Group (No. 38)

Path. No. 94109

Gross: Non-survivor; found dead after 567 days on study.

Lung - Numerous small subcapsular nodules.

Small and large intestines, brain, and pituitary exhibit marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic bronchitis.

Kidney - Mild congestion.

Liver - Mild focal proliferation of small bile ducts; moderate congestion.

Small and large intestines, pituitary, mammary gland, lymph node, brain, spinal cord, bone with bone marrow and eye were autolyzed and not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G12CM

Control Group (No. 39)

Path. No. 94110

Gross: Non-survivor; found dead after 582 days on study.

Kidney - Moderate uniform enlargement with a pale discoloration, bilaterally.

Mesentery - Numerous small grayish-red lesions measuring 0.5 to 5 cm in diameter.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Severe chronic nephritis.

Liver - Mild congestion.

Spleen - Moderate congestion.

Pancreas - Severe chronic arteritis with a marked proliferation of smooth muscle.

Testis - Focal interstitial cell hyperplasia.

Mesentery - Smooth muscle hypertrophy and focal hemorrhages in the wall of large vessels; one lumen filled with organized thrombus.

Large intestine, mammary gland, lymph node, brain, spinal cord, bone with bone marrow and eye were not examined.

Stomach, small intestine, and thyroid exhibited moderate autolysis.

All other organs examined microscopically were unremarkable.

Male Rat No. G14CM

Control Group (No. 40)

Path. No. 94332

Gross: Non-survivor; found dead after 609 days on study.

Lung - Nodule measuring 1 X 2 cm, red, slightly firm, found in the left lobe.

Spleen - Diffuse marked enlargement.

Liver - Diffuse moderate enlargement of all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Reticulum cell sarcoma, metastatic.

Heart - Minimal focal myocarditis.

Kidney - Reticulum cell sarcoma, metastatic.

Liver - Reticulum cell sarcoma, metastatic.

Spleen - Reticulum cell sarcoma, primary.

Pancreas - Reticulum cell sarcoma, metastatic.

Adrenal - Reticulum cell sarcoma, metastatic.

Prostate - Mild glandular hypertrophy.

Lymph node - Reticulum cell sarcoma, metastatic.

Bone marrow - Few scattered atypical lymphoreticular cells.

Pituitary, mammary gland, brain, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G15CM

Control Group (No. 41)

Path. No. 92782

Gross: Non-survivor; found dead after 296 days on study.

Liver - All lobes exhibit prominent lobular architecture.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate acute bronchitis; mild hyperemia.

Heart - Mild congestion.

Kidney - Moderate congestion; focal tubular necrosis.

Liver - Severe passive congestion.

Spleen - Pigmentation.

Pituitary - Severe congestion.

Adrenal - Focal hydropic degeneration.

Mammary gland, urinary bladder, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. G16CM

Control Group (No. 42)

Path. No. 96047

Gross: Non-survivor; found dead after 676 days on study.

All organs exhibit marked autolysis.

Microscopic:

All examined organs exhibited moderate to severe autolysis and were excluded from the study.

Male Rat G18CM

Control Group (No. 43)

Path. No. 94893

Gross: Non-survivor; found dead after 635 days on study.

All organs examined grossly exhibit marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.

Male Rat No. G20CM

Control Group (No. 44)

Path. No. 95539

Gross: Non-survivor; found dead after 769 days on study.

Heart - Thickened wall of left ventricle.

Adrenal - Moderately enlarged, unilaterally.

Testis - Marked atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Heart - Mild hypertrophy of left ventricle.

Kidney - Severe chronic nephritis.

Liver - Mild fatty change in centrilobular areas.

Spleen - Mild reticulum cell hyperplasia.

Adrenal - Pheochromocytoma, unilaterally.

Testis - Mild tubular atrophy; mild chronic arteritis.

Seminal vesicle - Mild tubular atrophy.

Artery - Arteriosclerosis with focal hemorrhage.

Mammary gland, nerve, salivary gland, brain, spinal cord, bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G23CM

Control Group (No. 45)

Path No. 95600

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Pleural adhesion of the right anterior lobe; multiple subcapsular yellowish-white nodules.

Stomach - Small focal ulceration.

Kidney - Mottled appearance with yellowish discoloration.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal glandular hyperplasia of the fundus.

Lung - Severe chronic murine pneumonia.

Kidney - Moderate chronic nephritis.

Liver - Mild congestion; focal fatty change.

Pancreas - Moderate chronic arteritis.

Testis - Mild tubular atrophy.

Seminal vesicle - Severe chronic arteritis.

Prostate - Moderate glandular atrophy.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G26CM

Control Group (No. 46)

Path. No. 96048

Gross: Non-survivor; found dead after 503 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. G27CM

Control Group (No. 47)

Path. No. 95601

Gross: **Non-survivor**; found dead after 801 days on study.

Pituitary - Markedly enlarged.

Kidney - Dilatation of the pelvis, unilaterally.

Testis - Marked atrophy, bilaterally.

Prostate - Distended with a purulent yellowish-green fluid.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Focal myocarditis.

Kidney - Moderate interstitial nephritis; moderate pyelitis.

Liver - Moderate congestion; mild pericholangitis; focal necrosis.

Pituitary - Chromophobe adenoma.

Adrenal - Pheochromocytoma.

Testis - Moderate tubular atrophy, bilaterally.

Prostate - Severe prostatitis with abscessation.

Urinary bladder - Chronic cystitis; hyperplasia of transitional epithelium.

Mammary gland, seminal vesicle, and bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G29CM

Control Group (No. 48)

Path. No. 95888

Gross: Non-survivor; found dead after 780 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal cystic dilatation of fundal glands.

Lung - Mild focal interstitial pneumonitis.

Heart - Hypertrophy of left ventricle.

Kidney - Severe chronic nephritis.

Spleen - Moderate congestion.

Adrenal - Mild congestion of medulla.

Seminal vesicle - Mild tubular atrophy.

Prostate - Mild glandular atrophy.

Mammary gland and nerve were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J1CM

Control Group (No. 49)

Path. No. 95602

Gross: Non-survivor; found dead after 792 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic nephritis.

Liver - Mild congestion.

Testis - Severe tubular atrophy.

Seminal vesicle - Mild tubular atrophy.

Prostate - Severe glandular atrophy.

Salivary gland - All ducts filled with secretion and desquamated cells.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. J2CM

Control Group (No. 50) Path. No. 96049

Gross: Non-survivor; found dead after 551 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.

Male Rat No. J3CM

Control Group (No. 51)

Path. No. 94894

Gross: Non-survivor; found dead after 682 days on study.

Lung - Subcapsular yellowish-white nodules on all lobes.

Testis - Marked enlargement, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild chronic pericarditis.

Kidney - Moderate interstitial nephritis; mineral deposits in cortico-medullary junction.

Liver - Lymphosarcoma, metastatic.

Spleen - Lymphosarcoma, metastatic.

Adrenal - Lymphosarcoma, metastatic; necrosis of medulla, unilaterally.

Testis - Cavernous hemangioma, unilaterally.

Urinary bladder - Focal chronic cystitis.

Lymph node, mediastinal - Lymphosarcoma, primary.

Thyroid, seminal vesicle, nerve, bone with bone marrow and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J4CM

Control Group (No. 52)

Path. No. 96050

Gross: Non-survivor; found dead after 684 days on study.

Tissue mass located subcutaneously in the left inguinal area and measuring 8 X 6 X 4 cm.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Pituitary - Chromophobe adenoma.

Mammary gland - Fibroadenoma (tissue mass).

Testis - Severe tubular atrophy, bilaterally.

Lymph node and bone with bone marrow were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis, and were otherwise unremarkable.

Male Rat No. J5CM

Control Group (No. 53)

Path. No. 93032

Gross: Non-survivor; found dead after 348 days on study.

Lung, small and large intestines, brain, and pituitary exhibited marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.



Male Rat No. J11CM

Control Group (No. 54) Path. No. 92954

Gross: Non-survivor; found dead after 348 days on study.

Lung - Numerous small patchy areas of dark brown discoloration located on the surface of all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia; severe hyperemia.

Heart - Mild focal myocarditis.

Kidney - Moderate congestion.

Liver - Moderate congestion.

Testis - Mild tubular atrophy.

Prostate - Mild glandular atrophy.

Small and large intestines, pancreas, pituitary, thyroid, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J15CM

Control Group (No. 55) Path. No. 95794

Gross: Non-survivor; found dead after 784 days on study.

Stomach - Several small ulcerations found in the lumen.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Two chronic ulcerative lesions in the forestomach.

Lung - Mild chronic murine pneumonia.

Kidney - Mild interstitial nephritis with tubular necrosis.

Liver - Moderate diffuse small bile duct proliferation.

Spleen - Severe congestion.

Pancreas - Islet cell adenoma.

Adrenal - Moderate congestion of medulla; focal vacuolization of zona fasciculata.

Testis - Moderate tubular atrophy.

Prostate - Severe glandular atrophy.

Eye - Mild congestion of left sclera.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J21CM

Control Group (No. 56) Path. No. 95795

Gross: Non-survivor; found dead after 773 days on study.

Lung - Numerous subcapsular yellowish-white nodules.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Severe chronic nephritis.

Liver - Patchy acute inflammation on the capsule.

Spleen - Focal acute inflammation on the capsule.

Peritoneum - Moderate acute peritonitis; focal vasculitis and thrombosis of mesenteric vessels.

Mammary gland and urinary bladder were not examined.

All other organs examined microscopically showed mild to moderate autolysis and were otherwise unremarkable.



Male Rat No. J23CM

Control Group (No. 57) Path. No. 95796

Gross: Non-survivor; found dead after 620 days on study.

All organs examined grossly showed mild autolysis.

Microscopic:

Lung - Mild edema.

Heart - Mild hypertrophy of left ventricle.

Kidney - Mild interstitial nephritis.

Liver - Moderate congestion with focal cytoplasmic vacuolization of hepatocytes.

Adrenal - Cortical adenoma.

Testis - Focal calcifications.

Mammary gland and lymph node were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. J24CM

Control Group (No. 58)

Path. No. 95496

Gross: Non-survivor; found dead after 754 days on study.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Mild acute bronchitis; moderate edema.

Heart - Focal mineralization.

Kidney - Severe chronic interstitial nephritis.

Adrenal - Focal cortical hyperplasia.

Bone marrow - Slight hypercellularity.

Pituitary, mammary gland, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat J28CM

Control Group (No. 59) Path. No. 95797

Gross: Non-survivor; found dead after 617 days on study.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pancreas - Focal sclerosing pancreatitis.

Mammary gland and lymph node were not examined.

All other organs examined microscopically exhibited mild to severe autolysis and were otherwise unremarkable.

Male Rat No. J29CM

Control Group (No. 60)

Path. No. 95798

Gross: Non-survivor; found dead after 656 days on study.

Pituitary - Mild enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Mild congestion.

Kidney - Mild focal interstitial nephritis.

Liver - Mild focal fatty change in portal areas.

Pituitary - Chromophobe adenocarcinoma, well differentiated.

Adrenal - Focal vacuolization in zona fasciculata.

Eye - Focal moderate keratitis.

Thyroid, mammary gland, lymph node and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L1CM

Control Group (No. 61)

Path. No. 95603

Gross: Survivor; sacrificed by design after 805 days on study.

Liver - Round gelatinous nodule measuring 10 mm in diameter on the dorsal surface of the middle lobe.

Testis - Marked atrophy, bilaterally.

Kidney - Pale discoloration.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate chronic nephritis.

Liver - Angioma.

Spleen - Focal hyalinization of arterioles.

Thyroid - Focal squamous metaplasia.

Testis - Severe tubular atrophy.

Prostate - Severe glandular atrophy.

All other organs examined microscopically were unremarkable.

Male Rat No. L7CM

Control Group (No. 62)

Path. No. 95799

Gross: Non-survivor; found dead after 625 days on study.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Stomach - Acute gastric ulcer in the forestomach.

Lung - Mild chronic murine pneumonia.

Heart - Focal myocarditis.

Liver - Mild fatty change in portal areas.

Pituitary - Chromophobe adenoma.

Urinary bladder - Mild cystitis.

Eye - Moderate acute keratitis.

Mammary gland, lymph node, salivary gland, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L9CM

Control Group (No. 63)

Path. No. 95604

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Pituitary - Chromophobe adenoma.

Prostate - Mild glandular hyperplasia.

Eye - Moderate chronic dacryoadenitis.

All other organs examined microscopically were unremarkable.

Male Rat No. L10CM

Control Group (No. 64)

Path. No. 96068

Gross: Non-survivor; found dead after 497 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited severe autolysis  
and were excluded from the study.



Male Rat No. L15CM

Control Group (No. 65)

Path. No. 96051

Gross: Non-survivor; found dead after 661 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.

Male Rat No. L20CM

Control Group (No. 66) Path. No. 95605

Gross: Survivor; sacrificed by design after 805 days on study.

Spleen - Markedly enlarged.

Lung - All lobes moderately consolidated.

Thyroid - Marked enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate interstitial pneumonitis.

Heart - Focal myocarditis.

Kidney - Moderate interstitial nephritis.

Liver - Focal cytoplasmic vacuolization.

Spleen - Severe extramedullary hematopoiesis.

Thyroid - Follicular hyperplasia.

Adrenal - Medullary and cortical hyperplasia.

Prostate - Mild focal chronic prostatitis.

Bone marrow - Mild hypercellularity.

All other organs examined microscopically were unremarkable.

Male Rat No. L21CM

Control Group (No. 67)

Path. No. 96052

Gross: Non-survivor; found dead after 512 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.

Male Rat No. L23CM

Control Group (No. 68) Path. No. 95606

Gross: Survivor; sacrificed by design after 805 days on study.

Thyroid - Mild enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Adenocarcinoma, metastatic.

Heart - Focal myocarditis.

Kidney - Severe interstitial nephritis; multiple small cysts.

Liver - Focal hyperplasia; focal cytoplasmic degeneration.

Pancreas - Mild focal sclerosing pancreatitis; severe chronic arteritis.

Thyroid - Adenocarcinoma, primary.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L25CM

Control Group (No. 69)

Path. No. 95607

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal calcification in the glandular mucosa.

Kidney - Mild interstitial nephritis.

Liver - Mild pericholangitis; focal cytoplasmic degeneration.

Pituitary - Chromophobe adenoma.

Thyroid - Follicular hyperplasia.

Parathyroid - Adenoma.

Adrenal - Focal cortical hyperplasia.

All other organs examined microscopically were unremarkable.

Male Rat No. L26CM

Control Group (No. 70)

Path. No. 94895

Gross: Non-survivor; found dead after 686 days on study.

Brain - Focal hyperemia, both in the cerebrum and the cerebellum.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia.

Heart - Mild focal myocarditis.

Kidney - Severe chronic nephritis.

Liver - Moderate congestion.

Thyroid - Focal squamous metaplasia.

Brain - Acute abscesses in both cerebrum and cerebellum; focal chronic vasculitis.

Mammary gland, lymph node, nerve, bone, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L29CM

Control Group (No. 71)

Path. No. 95609

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mild interstitial nephritis.

Pancreas - Islet cell adenoma.

Pituitary - Chromophobe adenoma.

Thyroid - Mild follicular hyperplasia.

Adrenal - Mild vacuolization in zona fasciculata.

Bone marrow - Mild hypercellularity.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L30CM

Control Group (No. 72)

Path. No. 95237

Gross: Non-survivor; found dead after 732 days on study.

Lung - All lobes diffusely hyperemic; subcapsular nodularity in the right anterior lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Moderate chronic colitis.

Lung - Severe chronic murine pneumonia in right lobe; severe hyperemia in left lobes.

Kidney - Mild congestion.

Liver - Severe congestion; multifocal coagulative necrosis.

Pancreas - Islet cell adenoma.

Adrenal - Moderate congestion.

Testis - Mild focal tubular atrophy.

Small intestine, mammary gland, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. B1CF

Control Group (No. 1)

Path. No. 95497

Gross: Non-survivor; found dead after 772 days on study.

Lung - Consolidation and hyperemia of right lobes.

Ovary - Cyst measuring 2 X 2 mm, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Moderate congestion.

Adrenal - Severe congestion.

Ovary - Multiple follicular cysts, unilaterally.

Bone marrow - Mild hypocellularity.

Mammary gland and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B2CF                      Control Group (No. 2)      Path. No. 95344

Gross: Non-survivor; sacrificed in extremis after 759 days on study.

Pituitary - Markedly enlarged.

Lung - Numerous greyish subcapsular nodules in all lobes.

Adrenal - Moderately enlarged, unilaterally.

Mammary gland - Tissue mass measuring 2 x 1.5 x 1 cm in left inguinal area.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Dilated tubules filled with eosinophilic casts.

Spleen - Pigmentation.

Pituitary - Gross lesion not confirmed, no tissue was submitted.

Thyroid - Focal squamous metaplasia.

Adrenal - Cortical adenoma, unilaterally.

Mammary gland - Adenoma.

Ovary - Follicular cyst, unilaterally.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B6CF

Control Group (No. 3)

Path. No. 95610

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Liver - Mottled appearance with several yellowish-white subcapsular nodules.

Uterus - Two small cysts in the right horn.

Mammary gland - Tissue mass located subcutaneously in the right axillary area, measuring 4 x 5 x 3 cm.

Omentum - Yellowish-white nodule measuring 12 x 10 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis; calcifications in the pelvis.

Liver - Focal hyperplasia; focal cytoplasmic degeneration; focal proliferation of bile ducts.

Pancreas - Focal islet cell hyperplasia.

Pituitary - Chromophobe adenoma.

Adrenal - Angiectasis.

Mammary gland - Fibroadenoma.

Uterus - Cystic endometrium.

Omentum - Lipoma.

Nerve was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B9CF

Control Group (No. 4)

Path. No. 94799

Gross: Non-survivor; found dead after 687 days on study.

Small and large intestines, uterus and ovaries exhibited severe autolysis; no sections were submitted.

All other organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Moderate hyperemia; mild emphysema.

Kidney - Moderate interstitial nephritis.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Moderate congestion.

Adrenal - Focal necrosis of medulla, unilaterally.

Lymph node - Reticulum cell hyperplasia.

Small and large intestines, thyroid, mammary gland, ovary, uterus, vagina, urinary bladder, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B10CF

Control Group (No. 5)

Path. No. 94898

Gross: Non-survivor; found dead after 692 days on study.

Kidney - Mottled appearance.

Mammary gland - Subcutaneous tissue mass measuring 3 x 2 x 1 cm  
in the inguinal area.

Uterus - Moderate enlargement of the right horn.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic nephritis.

Liver - Multifocal hyperplasia.

Adrenal - Cortical adenoma.

Mammary gland - Fibroadenoma.

Uterus - Moderate chronic endometritis; glandular hyperplasia.

Large intestine, vagina, brain and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B11CF

Control Group (No. 6)

Path. No. 95611

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Liver - Focal cytoplasmic degeneration.

Pancreas - Mild pancreatitis; focal atrophy.

Pituitary - Chromophobe hyperplasia.

All other organs examined microscopically were unremarkable.

Female Rat No. B16CF

Control Group (No. 7)

Path. No. 95658

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged, bilaterally.

Ovary - Small cyst, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild chronic nephritis.

Liver - Mild nonsuppurative hepatitis.

Adrenal - Severe angiectasis, bilaterally.

Ovary - Cyst, unilaterally.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B17CF

Control Group (No. 8)

Path. No. 94749

Gross: Non-survivor; found dead after 644 days on study.

Uterus - Left horn moderately enlarged.

Mammary gland - Mass 1, located subcutaneously in left inguinal region, measuring 5 x 3 x 1 cm; mass 2, located subcutaneously in left axillary region, measuring 3 cm in diameter.

Pituitary - Slightly enlarged.

Small and large intestines exhibited moderate autolysis; no sections were submitted.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Severe acute necrotizing papillitis.

Spleen - Mild reticulum cell hyperplasia.

Pituitary - Mild chromophobe hyperplasia.

Adrenal - Moderate vacuolization of zona fasciculata, unilaterally.

Mammary gland - Mass 1, adenocarcinoma, well differentiated, tissue section was severely autolyzed; mass 2, cystadenoma.

Uterus - Severe endometritis; glandular hyperplasia.

Urinary bladder - Mild hypertrophy of muscularis.

Bone marrow - Mild hypercellularity.

Small and large intestines, liver, ovary, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. B18CF

Control Group (No. 9)

Path. No. 95498

Gross: Non-survivor; sacrificed in extremis after 765 days on study.

Pituitary - Markedly enlarged.

Adrenal - Slightly enlarged, unilaterally.

Mammary gland - Nodule located subcutaneously in right inguinal region and measuring 13 x 13 mm.

Mesentery - Small nodule measuring 8 x 5 x 2 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Moderate hypertrophy of right ventricle.

Kidney - Dilated tubules with eosinophilic casts.

Liver - Mild congestion.

Spleen - Pigmentation.

Pituitary - Section contained only fragment of posterior lobe; gross lesion was not confirmed.

Adrenal - Severe congestion, unilaterally.

Mammary gland - Subcutaneous pilar sebaceous cyst.

Mesentery - Fibrolipoma.

Lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B22CF

Control Group (No. 10)

Path. No. 96053

Gross: Non-survivor; found dead after 504 days on study.

Mammary gland - Subcutaneous tissue mass in the right inguinal region, measuring 3 x 2.5 x 2 cm.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Moderate emphysema; foreign body granuloma.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe cell adenocarcinoma, primary.

Mammary gland - Fibroadenoma.

Brain - Infiltrating chromophobe adenocarcinoma, metastatic.

Lymph node and nerve were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. B26CF

Control Group (No. 11)

Path. No. 95800

Gross: Non-survivor; found dead after 790 days on study.

Tissue mass 1 - Subcutaneous mass located in left inguinal area measuring 5 x 3.5 x 3 cm.

Tissue mass 2 - Located subcutaneously in right inguinal area measuring 5 x 4 x 2 cm.

Lung - Consolidation and hyperemia.

Uterus - Left horn enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia; mild pulmonary edema.

Liver - Reticulum cell sarcoma, metastatic; primary lesion was not identified.

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis, unilaterally; cortical hyperplasia, unilaterally.

Mammary gland - Mass 1 and 2: Cystadenoma.

Uterus - Severe acute endometritis.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat B30CF

Control Group (No. 12)

Path. No. 95801

Gross: Non-survivor; found dead after 635 days on study.

Adrenal - Markedly enlarged, unilaterally.

Mammary gland - Tissue mass 1: located subcutaneously in the left cervical area and measuring 4 X 3 X 2 cm; mass 2: located subcutaneously in the lower abdominal area measuring 4 X 3 X 2 cm.

Uterus - Nodule measuring 4 X 4 mm in the left horn.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Mild focal interstitial nephritis; focal fibrous thickening of the capsule; hyperplasia of transitional epithelium with focal polyposis.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Angiectasis, cortical hyperplasia, unilaterally.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Uterus - Focal endometrial cyst.

Vagina and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D6CF Control Group (No. 13) Path. No. 95612

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, unilaterally.

Mammary gland - Tissue mass located subcutaneously in the right axillary region and measuring 2 X 1.5 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Focal hyperplasia.

Adrenal - Mild angiectasis.

Ovary - Follicular cyst.

Mammary gland - Fibroadenoma.

Stomach was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D7CF

Control Group (No. 14)

Path. No. 94751

Gross: Non-survivor; found dead after 674 days on study.

Lung - Diffuse hyperemia.

Adrenal - Diffuse hyperemia, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Moderate tubular necrosis; focal calcifications.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Severe congestion, bilaterally.

Uterus - Mild acute endometritis.

Large intestine, pituitary, mammary gland, spinal cord and eye  
were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D8CF

Control Group (No. 15)

Path. No. 95499

Gross: Non-survivor; sacrificed in extremis after 772 days on study.

Mammary gland - Cystic lesions measuring 9 X 7 X 10 mm located subcutaneously in the right axillary area.

Kidney - Mottled appearance, bilaterally.

Lung - Diffuse congestion.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Severe chronic nephritis.

Adrenal - Focal vacuolization of zona fasciculata.

Mammary gland - Cyst.

Eye - Focal atrophy of sclera.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D12CF

Control Group (No. 16)

Path. No. 95613

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged, unilaterally.

Ovary - Cyst measuring 5 mm in dia., unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe interstitial nephritis.

Pancreas - Focal pancreatitis.

Adrenal - Cortical cyst, unilaterally.

Ovary - Luteal cyst.

Eye - Focal retinal atrophy, unilaterally.

All other organs examined microscopically were unremarkable.



Female Rat No. D13CF

Control Group (No. 17)

Path. No. 94219

Gross: Non-survivor; found dead after 596 days on study.

Lung - Numerous subcapsular nodules in all right lobes.

Liver - Two yellowish-gray subcapsular nodules measuring 2 mm in dia.

Small and large intestines exhibited moderate autolysis, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Dilated tubules with eosinophilic casts; large mineral deposits in the pelvis.

Liver - Cystic cholangioma; severe congestion.

Spleen - Pigmentation.

Adrenal - Coagulative necrosis and hemorrhage of the medulla, unilaterally.

Lymph node - Pigmentation.

Mediastinum - Lipoma.

Small and large intestines, pituitary, mammary gland, nerve, salivary gland, brain, spinal cord, bone with bone marrow and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D17CF

Control Group (No. 18)

Path. No. 95802

Gross: Non-survivor; found dead after 682 days on study.

Kidney - Mottled appearance with grayish nodular surface.

Lung - Numerous subcapsular nodules in right lobes.

Mammary gland - Tissue mass located subcutaneously in the left inguinal region and measuring 5 X 4 X 4 cm.

All other organs examined grossly exhibited mild autolysis.

Microscopic:

Stomach - Focal inflammation on serosa.

Lung - Moderate chronic murine pneumonia; one section contains bronchial abscess lined partially with a metaplastic hyperkeratinized squamous epithelium.

Heart - Moderate focal myocarditis.

Kidney - Moderate chronic nephritis; moderate pyelitis; multiple septic abscesses.

Liver - Moderate congestion.

Spleen - Extramedullary hematopoiesis.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Moderate congestion.

Mammary gland - Fibroadenoma.

Ovary - Cyst, unilaterally; septic inflammation of paraovarian region.

Omentum - Liposarcoma.

Pancreas, vagina, and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D18CF                      Control Group (No. 19)                      Path. No. 95614

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Adrenal - Moderate angiectasis.

All other organs examined microscopically were unremarkable.

Female Rat No. D19CF

Control Group (No. 20)

Path. No. 95615

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Tissue mass 1: Located in the right cervical region measuring 2.5 X 3 X 1.5 cm; tissue mass 2: located in the left inguinal region measuring 3 X 2 X 1.5 cm; tissue mass 3: located in the left inguinal region measuring 2 X 1.5 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Mild peribronchial lymphoid hyperplasia.

Heart - Mild chronic endocarditis.

Liver - Extramedullary hematopoiesis.

Spleen - Extramedullary hematopoiesis.

Thyroid - Focal squamous metaplasia.

Adrenal - Cortical hyperplasia, unilaterally.

Mammary gland - Mass 1: Fibroadenoma; mass 2: cystadenoma; mass 3: adenocarcinoma, well differentiated, primary.

All other organs examined microscopically were unremarkable.

Female Rat No. D20CF

Control Group (No. 21)

Path. No. 94899

Gross: Non-survivor; found dead after 700 days on study.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Dilated tubules with eosinophilic casts; calcifications in calyces.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Uterus - Mild acute endometritis.

Thyroid, mammary gland, vagina, lymph node, and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D21CF

Control Group (No. 22)

Path. No. 96054

Gross: Non-survivor; found dead after 577 days on study.

Lung - Mottled appearance.

All organs examined grossly exhibited moderate autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild hypertrophy of right ventricle.

Kidney - Dilated tubules with eosinophilic casts.

Liver - Moderate congestion.

Adrenal - Moderate congestion; vacuolization of zona vasciculata.

Ovary - Moderate congestion.

Uterus - Hemangioma.

Pituitary, mammary gland, vagina, urinary bladder and lymph node  
were not examined.

All other organs examined microscopically exhibited mild to moderate  
autolysis, and were otherwise unremarkable.

Female Rat No. D22CF

Control Group (No. 23)

Path. No. 95616

Gross: Non-survivor; found dead after 802 days on study.

Mammary gland - Tissue mass located subcutaneously in the left lower abdominal area measuring 8 X 7 X 4 cm.

Adrenal - Moderately enlarged, bilaterally.

Kidney - Pale yellow discoloration and mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild acute bronchitis.

Heart - Moderate myocarditis.

Kidney - Severe chronic nephritis.

Liver - Multifocal necrosis.

Spleen - Pigmentation.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Cortical hyperplasia; vacuolization of zona fasciculata; mild angiectasis.

Mammary gland - Fibroadenoma.

Nerve and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D29CF

Control Group (No. 24)

Path. No. 95803

Gross: Non-survivor; found dead after 784 days on study.

Pituitary - Moderately enlarged and hyperemic.

Thyroid - Left lobe moderately enlarged.

Mammary gland - Tissue mass located subcutaneously in the right inguinal region and measuring 6.5 X 4.5 X 2 cm.

Liver - Pale yellow discoloration.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Focal calcifications in the pelvis.

Liver - Severe chronic nonsuppurative hepatitis with diffuse centrilobular necrosis.

Spleen - Moderate lymphoid hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Adenoma of parathyroid.

Adrenal - Mild angiectasis; focal cortical hyperplasia; vacuolization of zona fasciculata.

Mammary gland - Fibroadenoma.

Ovary and lymph node were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. F5CF

Control Group (No. 25)

Path. No. 95093

Gross: Non-survivor; found dead after 709 days on study.

Pituitary - Hyperemia.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia.

Heart - Focal perivascular lymphocytic infiltration of epicardium.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pancreas - Focal perivasculitis.

Pituitary - Massive hemorrhage of the anterior lobe.

Adrenal - Thrombosis of medulla, bilaterally.

Ovary - Focal vascular congestion.

Vagina - Moderate keratinization of squamous epithelium.

Mammary gland and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F13CF

Control Group (No. 26)

Path. No. 95617

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Moderately enlarged and hyperemic.

Adrenal - Markedly enlarged, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Focal myocarditis.

Kidney - Moderate interstitial nephritis.

Liver - Nodular hyperplasia.

Pituitary - Chromophobe adenoma.

Adrenal - Cortical hyperplasia; angiectasis.

Lymph node and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F15CF

Control Group (No. 27)

Path. No. 95618

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

Mammary gland - Mass 1: Located in the left inguinal region and measuring 5 X 4 X 4 cm; mass 2: located subcutaneously in the right inguinal area and measuring 3 X 3 X 1 cm.

Lung - Nodular surface in left lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Focal hyperplasia.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Moderate angiectasis.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Ovary and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F16CF

Control Group (No. 28)

Path. No. 95619

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Hyperemia.

Mammary gland - Tissue mass located subcutaneously in the left inguinal area and measuring 2 X 1 X 1 cm.

Uterus - Soft mass measuring 7 X 5 X 4 cm located at the bifurcation.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Calcifications in the pelvis.

Liver - Severe extramedullary hematopoiesis.

Pancreas - Islet cell adenoma.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis, unilaterally.

Mammary gland - Adenoma.

Uterus - Angiomatous fibrosarcoma.

Urinary bladder - Focal submucosal edema.

Bone marrow - Moderate erythropoiesis.

Vagina and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F17CF

Control Group (No. 29)

Path. No. 95620

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Multinodular mottled appearance.

Adrenal - Markedly enlarged, unilaterally.

Ovary - Fibrous nodule measuring 9 X 8 X 5 mm, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia; focal squamous metaplasia of bronchial epithelium.

Spleen - Pigmentation.

Adrenal - Pheochromocytoma.

Ovary - Tubular adenoma, bilaterally.

Uterus - Endometrial cysts.

Pancreas and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F18CF      Control Group (No. 30)      Path. No. 96055

Gross: Non-survivor; found dead after 615 days on study.

All organs examined grossly exhibited moderate autolysis.

Microscopic:

Kidney - Calcifications in the pelvis.

Liver - Moderate congestion.

Spleen - Pigmentation.

Bone marrow - Mild hypocellularity.

Mammary gland, lymph node and eye were not examined.

Pituitary and thyroid exhibited severe autolysis.

All other organs examined microscopically were unremarkable.

Female Rat No. F19CF

Control Group (No. 31)

Path. No. 95238

Gross: Non-survivor; found dead after 738 days on study.

Pituitary - Hyperemia.

Lung - Mottled appearance.

Uterus - Enlargement of left horn.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia; moderate congestion.

Liver - Mild pericholangitis; mild congestion.

Spleen - Pigmentation.

Pituitary - Moderate congestion; eosinophilic crystals in pars intermedia.

Thyroid - Focal squamous metaplasia.

Adrenal - Mild congestion and necrosis of the medulla.

Uterus - Fibrovascular polyp.

Brain - Focal calcifications in cerebellar cortex.

Mammary gland, vagina, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F22CF

Control Group (No. 32)

Path. No. 95804

Gross: Non-survivor; found dead after 651 days on study.

Pituitary - Hyperemia.

All other organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Mild hyperemia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Pituitary - Severe diffuse hemorrhage.

Adrenal - Focal congestion of medulla.

Mammary gland, lymph node, and bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. F26CF

Control Group (No. 33)

Path. No. 95621

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Focal hyperplasia.

Spleen - Pigmentation.

Adrenal - Severe angiectasis.

Eye - Focal corneal erosion.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F27CF

Control Group (No. 34)

Path. No. 95103

Gross: Non-survivor; sacrificed in extremis after 719 days on study.

Pituitary - Markedly enlarged and hyperemic.

Mammary gland - Mass 1: Located in right inguinal area and measuring 2 X 1.5 X 1 cm; mass 2: multinodular, located in left inguinal region and measuring 1.8 X 1.5 X 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate peribronchial lymphoid hyperplasia.

Heart - Focal fibrosis.

Kidney - Large calcifications in the pelvis; hyperplasia of transitional epithelium; focal pigmentation of convoluted tubules.

Liver - Mild congestion; mild fatty change in portal areas.

Spleen - Pigmentation.

Pituitary - Severe congestion.

Adrenal - Moderate congestion with focal hemorrhages.

Mammary gland - Mass 1: Fibroadenoma; mass 2: papillary cystadenoma; well differentiated.

Ovary - Follicular cyst, unilaterally.

Uterus - Mild chronic endometritis.

Lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F28CF

Control Group (No. 35)

Path. No. 96056

Gross: Non-survivor; found dead after 539 days on study.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Reticulum cell sarcoma, metastatic.

Liver - Reticulum cell sarcoma, metastatic.

Spleen - Reticulum cell sarcoma, primary.

Adrenal - Mild angiectasis.

Brain - Reticulum cell sarcoma, metastatic.

Tissue mass - Reticulum cell sarcoma, metastatic.

Pituitary, mammary gland, lymph node and salivary gland were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F30CF

Control Group (No. 36)

Path. No. 95622

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Marked hyperemia.

Ovary - Small cysts on the surface, unilaterally.

Mammary gland - Mass located subcutaneously in the right inguinal area and measuring 5 X 3 X 2 cm.

Uterus - Endometrial polyp measuring 16 X 5 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Focal bronchiectasis; mild peribronchial lymphoid hyperplasia.

Heart - Focal myocarditis.

Kidney - Moderate interstitial nephritis.

Liver - Focal hyperplasia; mild pericholangitis.

Pituitary - Chromophobe adenoma.

Adrenal - Mild congestion; vacuolization of zona fasciculata.

Mammary gland - Fibroadenoma.

Ovary - Tubular adenoma, unilaterally; follicular cysts, unilaterally.

Uterus - Fibroma in the cervix.

Bone marrow - Erythropoiesis.

All other organs examined microscopically were unremarkable.

Female Rat No. H1CF

Control Group (No. 37)

Path. No. 94358

Gross: Non-survivor; found dead after 612 days on study.

Adrenal - Moderate enlargement, bilaterally.

Liver - Prominent lobular architecture.

Mammary gland - Tissue mass located subcutaneously in the right axillary area measuring 1 cm in diameter.

Pituitary - Markedly enlarged.

Small and large intestines exhibited moderate autolysis, no sections were submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Moderate congestion; dilated tubules with eosinophilic casts.

Liver - Severe congestion.

Pancreas - Mild congestion.

Pituitary - Eosinophilic adenoma with focal ossification.

Adrenal - Cortical hyperplasia with focal hemorrhage.

Mammary gland - Cystadenoma.

Small and large intestines, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H6CF

Control Group (No. 38)

Path. No. 95805

Gross: Non-survivor; found dead after 579 days on study.

Mammary gland - Tissue mass in the left inguinal region measuring  
8.5 X 8.5 X 5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Mild fatty change; mild congestion.

Spleen - Pigmentation.

Adrenal - Mild congestion.

Mammary gland - Cystadenoma.

Urinary bladder - Focal dysplasia of transitional epithelium.

Eye - Focal corneal sclerosis and focal calcification, unilaterally.

Pancreas, pituitary, thyroid were not examined.

All other organs examined microscopically exhibited mild to moderate  
autolysis and were otherwise unremarkable.

Female Rat No. H10CF

Control Group (No. 39)

Path. No. 95624

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Moderately enlarged.

Adrenal - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Calcifications in the pelvis.

Spleen - Pigmentation.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Moderate angiectasis.

All other organs examined microscopically were unremarkable.

Female Rat No. H11CF

Control Group (No. 40)

Path. No. 95625

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Adrenal - Markedly enlarged, bilaterally.

Mammary gland - Subcutaneous mass located in the right axillary area measuring 14 X 9 X 4 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Calcifications in the pelvis.

Liver - Mild hyperplasia.

Spleen - Extramedullary hematopoiesis.

Adrenal - Cortical hyperplasia, bilaterally.

Mammary gland - Fibroadenoma.

Pituitary - Chromophobe adenoma.

All other organs examined microscopically were unremarkable.



Female Rat No. H12CF

Control Group (No. 41)

Path. No. 94750

Gross: Non-survivor; found dead after 668 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Liver - Mild centrilobular fatty change; mild congestion.

Pituitary - Chromophobe adenoma.

Small and large intestines, spleen, pancreas, adrenal, mammary gland, ovary, uterus, lymph node, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H13CF

Control Group (No. 42)

Path. No. 94897

Gross: Non-survivor; found dead after 685 days on study.

Mammary gland - Mass 1: Located subcutaneously in the right axillary area and measuring 10 X 5 X 5 cm; mass 2: located subcutaneously in the ventral cervical area and measuring 2 X 1 X 1 cm.

Lung - Nodular surface in right lobes.

All other organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Adrenal - Moderate congestion.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Small and large intestines, lymph node, nerve, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H16CF

Control Group (No. 43)

Path. No. 95806

Gross: Non-survivor; found dead after 784 days on study.

Ovary - Cyst on the surface, unilaterally.

Lung - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal hemosiderin pigmentation of mucosa.

Lung - Severe hyperemia.

Spleen - Pigmentation.

Thyroid - Focal calcifications.

Ovary - Luteal cysts, unilaterally.

Urinary bladder - Mild interstitial edema.

Eye - Focal scleral edema and congestion.

Adrenal, mammary gland, and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H19CF

Control Group (No. 44)

Path. No. 95626

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Ovary - Cyst, unilaterally.

Mammary gland - Tissue mass located in the left inguinal region measuring 3 X 2 X 1 cm; cystic structures located in left and right inguinal areas.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Mild hyperplasia.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Mammary gland - Fibroadenoma; galactoceles; abscess.

Ovary - Cyst, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. H21CF

Control Group (No. 45)

Path. No. 95627

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Tissue mass 1: located subcutaneously in the right axillary region measuring 7.5 X 5.5 X 4.5 cm; mass 2: located subcutaneously in the right inguinal area and measuring 5.5 X 4.5 X 2.5 cm.

Lung - Several yellowish nodules on all lobes.

Adrenal - Markedly enlarged, unilaterally.

Ovary - Two small cysts on the surface, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Liver - Focal cytoplasmic degeneration.

Spleen - Pigmentation.

Pituitary - Chromophobe cell hyperplasia.

Thyroid - Adenoma of the parathyroid.

Adrenal - Pheochromocytoma, unilaterally; moderate angiectasis, unilaterally.

Mammary gland - Mass 1 and 2: Cystadenoma.

Ovary - follicular cysts, unilaterally.

Lymph node and nerve were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H24CF

Control Group (No. 46)

Path. No. 96059

Gross: Non-survivor; found dead after 530 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Female Rat No. H25CF

Control Group (No. 47) Path. No. 95089

Gross: Non-survivor; found dead after 693 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Moderate muscular hypertrophy of both ventricles.

Liver - Moderate congestion.

Adrenal - Cortical adenoma.

Ovary - Cavernous hemangioma.

Pancreas, pituitary, mammary gland, vagina, lymph node, nerve,  
spinal cord and eye were not examined.

All other organs examined microscopically exhibited moderate to  
severe autolysis, and were otherwise unremarkable.

Female Rat No. H30CF

Control Group (No. 48)

Path. No. 95628

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Tissue mass located subcutaneously in the right axillary area and measuring 4 X 4 X 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Pancreas - Focal pancreatitis; focal atrophy.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis.

Mammary gland - Cystic fibroadenoma.

All other organs examined microscopically were unremarkable.



Female Rat No. KICF

Control Group (No. 49)

Path. No. 95090

Gross: Non-survivor; found dead after 697 days on study.

All organs examined grossly exhibited severe autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild hypertrophy of left ventricle.

Liver - Focal proliferation of small bile ducts; moderate congestion.

Adrenal - Necrosis of medulla, unilaterally.

Mammary gland - Cystadenoma abscess.

Ovary - Tubular adenoma, unilaterally.

Vagina, lymph node, nerve, spinal cord, eye were not examined.

All other organs examined microscopically exhibited moderate to severe autolysis and were otherwise unremarkable.

Female Rat No. K4CF

Control Group (No. 50)

Path. No. 95091

Gross: Non-survivor; found dead after 702 days on study.

Lung - Nodular appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia with multiple abscesses.

Kidney - Severe pyelitis; hyperplasia of transitional epithelium;  
moderate congestion.

Liver - Severe congestion.

Pituitary - Moderate congestion.

Adrenal - Severe congestion.

Ovary - Cavernous hemangioendothelioma.

Uterus - Severe endometritis.

Urinary bladder - Moderate chronic cystitis.

Mammary gland, vagina, nerve, and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K7CF

Control Group (No. 51)

Path. No. 94906

Gross: Non-survivor; found dead after 695 days on study.

Lung - Mottled appearance.

Mammary gland - Mass 1: located in the left axillary region measuring 3.5 X 1.5 X 2.5 cm; mass 2: located in left inguinal region measuring 3 X 2.5 X 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Moderate congestion.

Liver - Severe congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion, bilaterally.

Mammary gland - Mass 1 and 2: Cystadenoma.

Ovary - Follicular cyst, unilaterally.

Pituitary, thyroid, lymph node, nerve, and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K10CF

Control Group (No. 52)

Path. No. 96057

Gross: Non-survivor; found dead after 785 days on study.

Pituitary - Markedly enlarged.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mineral deposits in cortico-medullary junction, unilaterally.

Pituitary - Chromophobe adenoma.

Adrenal - Severe diffuse angiectasis, bilaterally.

Mammary gland and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K12CF

Control Group (No. 53)

Path. No. 93035

Gross: Non-survivor; found dead after 277 days on study.

Spleen - Markedly enlarged.

Small and large intestines, brain exhibited severe autolysis, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Mild focal interstitial nephritis.

Liver - Mild nonsuppurative hepatitis.

Spleen - Severe extramedullary hematopoiesis.

Thyroid - Mild follicular atrophy.

Adrenal - Focal extramedullary hematopoiesis; focal hyalinization of cortex, bilaterally.

Bone marrow - Moderate hypercellularity.

Mammary gland, urinary bladder, lymph node, brain, spinal cord, small and large intestines were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K13CF

Control Group (No. 54)

Path. No. 95629

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Mass 1: Located subcutaneously in the left inguinal region and measuring 13 X 12 X 5 mm; mass 2: located subcutaneously in the right mid-lateral region and measuring 11.5 X 14 X 7.5 cm.

Uterus - Two small endometrial nodules in the left horn.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Kidney - Mild tubular necrosis; calcifications in the pelvis.

Liver - Focal hyperplasia; focal necrosis.

Pituitary - Chromophobe cell hyperplasia.

Thyroid - Parathyroid: Massive proliferation of loose connective tissue.

Adrenal - Severe angiectasis.

Mammary gland - Mass 1: Epidermal inclusion cyst; mass 2: fibroadenoma.

Uterus - Multiple endometrial abscesses.

All other organs examined microscopically were unremarkable.

Female Rat No. K20CF

Control Group (No. 55)

Path. No. 95807

Gross: Non-survivor; found dead after 581 days on study.

Mammary gland - Subcutaneous mass in the right inguinal region measuring 11.5 X 10 X 8 cm; mass 2 - located subcutaneously in the thoracic region measuring 4 X 2 X 1.5 cm.

All other organs examined grossly exhibited mild autolysis.

Microscopic:

Stomach - Focal mucosal hemosiderin pigmentation.

Large intestine - Parasitic nematode in the lumen.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Ovary - Follicular cyst, unilaterally.

Lymph node, bone with bone marrow, and eye were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. K23CF

Control Group (No. 56)

Path. No. 94896

Gross: Non-survivor; found dead after 684 days on study.

Mammary gland - Firm subcutaneous mass in left inguinal region measuring  
10 X 8 X 3 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mineral deposits in cortico-medullary junction.

Mammary gland - Necrotizing cystadenocarcinoma; well differentiated.

Heart, pancreas, pituitary and lymph node were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. K25CF

Control Group (No. 57) Path. No. 95630

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Ovary - Cyst measuring 5 X 5 mm, unilaterally.

Mammary gland - Subcutaneous mass in right axillary region measuring  
3 X 2.5 X 2 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis.

Liver - Focal hyperplasia.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis; focal cortical hyperplasia; vacuolization  
of zona fasciculata.

Mammary gland - Galactocoele.

Ovary - Cyst, unilaterally.

Salivary gland and bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K26CF

Control Group (No. 58)

Path. No. 95540

Gross: Non-survivor; found dead after 766 days on study.

Mammary gland - Subcutaneous mass in left cervical region measuring  
6 X 6 X 4 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal mucosal hemosiderin pigmentation.

Kidney - Mild congestion.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Moderate congestion.

Mammary gland - Fibroadenoma.

Uterus - Mild focal endometritis and acute focal cervicitis.

Heart, lymph node and bone with bone marrow were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K28CF

Control Group (No. 59) Path. No. 96058

Gross: Non-survivor; found dead after 553 days on study.

Mammary gland - Mass 1: Located subcutaneously in the left inguinal area and measuring 3 X 4 X 2 cm; mass 2: located subcutaneously in the cervical area measuring 6 X 6 X 5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate peribronchial lymphoid hyperplasia.

Spleen - Mild congestion.

Thyroid - Follicular hyperplasia.

Mammary gland - Mass 1: Fibroadenoma; mass 2: angiofibroma.

Ovary - Follicular cyst, unilaterally.

Uterus - Mild chronic endometritis; small endometrial polyp.

Eye - Mild corneal opacification.

Lymph node and salivary gland were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis, and were otherwise unremarkable.

Female Rat No. K29CF

Control Group (No. 60)

Path. No. 95631

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Moderately enlarged.

Ovary - Cyst measuring 3 X 3 mm, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Mild nonsuppurative hepatitis.

Pituitary - Chromophobe adenoma.

Ovary - Cyst, unilaterally.

Mammary gland, lymph node and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M4CF

Control Group (No. 61)

Path. No. 95632

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Subcutaneous mass in the left axillary area measuring  
3 X 2.5 X 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mineral deposits in cortico-medullary junction.

Liver - Moderate cytoplasmic degeneration; focal necrosis.

Adrenal - Focal vacuolization of zona fasciculata; angiectasis, unilaterally.

Mammary gland - Fibrous cystadenoma.

All other organs examined microscopically were unremarkable.

Female Rat No. M6CF

Control Group (No. 62)

Path. No. 95633

Gross: Non-survivor; found dead after 801 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Subcutaneous mass in left axillary region measuring 2.5 X 2 X 1.5 cm.

Stomach - Focal mucosal depression.

Liver - Numerous fibrous firm nodules.

Uterus - Both horns contain tiny firm nodules.

Vagina - Mass in the lumen measuring 3.5 X 2.5 X 2.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Fibrosarcoma, metastatic.

Heart - Fibrosarcoma, metastatic.

Liver - Fibrosarcoma, metastatic.

Spleen - Mild congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis, bilaterally.

Mammary gland - Cystic fibroadenoma.

Uterus - Fibrosarcoma, primary.

Vagina - Invading fibrosarcoma; in some areas this tumor is infiltrated by squamous cell carcinoma.

Eye - Mild corneal sclerosis.

Stomach - Unremarkable in submitted section.

All other organs examined microscopically were unremarkable.

Female Rat No. M7CF

Control Group (No. 63) Path. No. 95164

Gross: Non-survivor; found dead after 720 days on study.

Pituitary - Markedly enlarged.

Pancreas - Nodule measuring 8 X 8 mm.

Lung - Nodular appearance in all lobes.

Adrenal - Moderately enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Moderate focal myocarditis; focal fibrosis.

Kidney - Calcifications in pelvis and calyces; focal hyperplasia of transitional epithelium.

Liver - Mild congestion.

Spleen - Pigmentation.

Pancreas - Islet cell adenoma.

Pituitary - Chromophobe adenoma.

Adrenal - Severe congestion with markedly distended sinusoids; focal necrosis; vacuolization of zona fasciculata.

Uterus - Moderate acute endometritis.

Lymph node - Reticulum cell hyperplasia.

Bone marrow - Mild hypocellularity.

Small intestine, mammary gland, and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M10CF

Control Group (No. 64)

Path. No. 95634

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, unilaterally.

Uterus - Nodular endometrium.

Mammary gland - Subcutaneous mass located in the right inguinal area measuring 4 X 2 X 2.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Heart - Focal chronic myocarditis.

Kidney - Dilatation of tubules with eosinophilic casts.

Spleen - Mild reticulum cell hyperplasia.

Pancreas - Focal ductal hyperplasia.

Pituitary - Focal hemorrhage.

Thyroid - Focal squamous metaplasia.

Adrenal - Severe angiectasis, bilaterally.

Mammary gland - Cystadenoma.

Ovary - Follicular cyst, unilaterally.

Uterus - Severe endometritis and myometritis; mild endometrial hyperplasia.

Urinary bladder - Focal mucosal trabeculation.

All other organs examined microscopically were unremarkable.



Female Rat No. M12CF

Control Group (No. 65)

Path. No. 95808

Gross: Non-survivor; found dead after 575 days on study.

Adrenal - Markedly enlarged, unilaterally.

Mammary gland - Mass 1: Located subcutaneously in the right inguinal area measuring 15 X 10 X 8 cm; mass 2: located subcutaneously in the right axillary area measuring 3 X 2 X 2 cm.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal glandular dilatation.

Lung - Focal atelectasis.

Kidney - Calcifications in the pelvis.

Liver - Mild nonsuppurative hepatitis.

Spleen - Massive extramedullary hematopoiesis.

Adrenal - Moderate angiectasis, unilaterally.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Urinary bladder - Mild hypertrophy of muscularis.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M13CF

Control Group (No. 66)

Path. No. 95809

Gross: Non-survivor; found dead after 780 days on study.

Lung - Nodular appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mild chronic nephritis.

Liver - Moderate congestion.

Adrenal - Severe congestion; focal cortical angiectasis, bilaterally.

Ovary - Mild congestion.

Uterus - Moderate congestion.

Mammary gland and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M15CF

Control Group (No. 67)

Path. No. 95635

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Subcutaneous mass located in mid-thoracic region measuring 7 X 6 X 2.5 cm.

Urinary bladder - Papillary growth in the lumen.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild interstitial pneumonitis.

Mammary gland - Adenocarcinoma, well differentiated.

Urinary bladder - Focal chronic cystitis; mucosal trabeculation.

Lymph node, brain, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M16CF

Control Group (No. 68) Path. No. 95810

Gross: Non-survivor; found dead after 617 days on study.

Mammary gland - Subcutaneous mass in the left lumbar region measuring  
6 X 4.5 X 5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Moderate fatty change.

Spleen - Pigmentation.

Adrenal - Mild congestion.

Mammary gland - Adenoma.

Urinary bladder - Mild hypertrophy of muscularis.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M22CF

Control Group (No. 69)

Path. No. 95636

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Mass 1: Located subcutaneously in the right cervical area measuring 3 X 2 X 1 cm; mass 2: located subcutaneously in the left inguinal area measuring 2 X 2 X 2 cm; mass 3: located subcutaneously in the left axillary region measuring 1 X 1 cm.

Adrenal - Mottled appearance, bilaterally.

Kidney - Cyst measuring 9 X 9 mm, unilaterally.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis; cortical cyst, unilaterally.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate angiectasis; cortical hyperplasia.

Mammary gland - Mass 1, 2 and 3: Adenocarcinoma, moderately well differentiated.

Uterus - Moderate endometritis with abscessation.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M24CF

Control Group (No. 70)

Path. No. 95092

Gross: Non-survivor; found dead after 704 days on study.

Lung - Mottled appearance.

All other organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild congestion.

Kidney - Mild tubular necrosis; calcifications in the pelvis.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Mild congestion of anterior lobe.

Thyroid - Mild follicular atrophy.

Lymph node, nerve, and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M25CF

Control Group (No. 71)

Path. No. 96060

Gross: Non-survivor; found dead after 668 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Liver - Severe congestion.

Pituitary - Chromophobe adenoma.

Mammary gland, lymph node, nerve, and spinal cord were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. M27CF

Control Group (No. 72)

Path. No. 95163

Gross: Non-survivor; found dead after 716 days on study.

Pituitary - Slightly enlarged.

Mammary gland - Subcutaneous mass in left inguinal region measuring  
10 X 8.5 X 4 cm.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Small intestine - Parasitic nematode in the lumen.

Lung - Mild chronic murine pneumonia.

Kidney - Focal calcifications in the cortex and pelvis.

Liver - Moderate nonsuppurative hepatitis.

Pituitary - Chromophobe adenoma.

Adrenal - Focal hyperplasia in zona fasciculata; severe congestion  
of distended sinusoids.

Mammary gland - Cystic fibroadenoma.

Uterus - Mild chronic endometritis.

Vagina, lymph node, nerve, and eye were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. A5LM

Low Dose Group (No. 1)

Path. No. 95713

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Mild hyperemia.

Adrenal - Markedly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Focal fibrosis.

Kidney - Moderate chronic nephritis; moderate pyelitis.

Liver - Mild nonsuppurative hepatitis.

Spleen - Extramedullary hematopoiesis.

Pancreas - Focal pancreatitis.

Pituitary - Chromophobe adenoma.

Adrenal - Pheochromocytoma, unilaterally; cortical hyperplasia.

Prostate - Severe prostatitis.

All other organs examined microscopically were unremarkable.

Male Rat No. A13LM

Low Dose Group (No. 2)

Path. No. 95714

Gross: Survivor; sacrificed by design after 805 days on study.

Tissue mass 1 - Located subcutaneously in left axillary region,  
measuring 5 X 7 X 4.5 cm.

Tissue mass 2 - Located subcutaneously in the cervical area and  
measuring 6 X 5 X 3 cm.

Tissue mass 3 - Located subcutaneously in the right scapular region  
measuring 5.5 X 5 X 2 cm.

Adrenal - Markedly enlarged, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild bronchiectasis.

Heart - Focal fibrosis.

Kidney - Mild interstitial nephritis.

Pancreas - Focal pancreatitis.

Thyroid - Mild follicular and epithelial hyperplasia.

Adrenal - Pheochromocytoma, bilaterally, malignant.

Mammary gland-mass 1 - Fibroadenoma with extrinsic fatty infiltration;  
mass 2 - hemangioendothelioma and abscess.

Tissue mass 3 - Liposarcoma.

All other organs examined microscopically were unremarkable.

Male Rat No. A17LM

Low Dose Group (No. 3)

Path. No. 94801

Gross: Non-survivor; found dead after 689 days on study.

Kidney - Moderately enlarged.

Pituitary - Moderately enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Focal chronic bronchitis; mild hyperemia.

Heart - Focal myocarditis.

Kidney - Severe chronic nephritis.

Liver - Moderate congestion.

Pituitary - Chromophobe adenocarcinoma, well differentiated.

Testis - Focal interstitial cell hyperplasia.

Urinary bladder - Few papillary projections extending into the lumen.

Artery - Severe chronic arteritis in various organs.

Small intestine, mammary gland and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A20LM

Low Dose Group (No. 4)

Path. No. 96063

Gross: Non-survivor; sacrificed in extremis after 785 days on study.

Testis - Moderate atrophy, unilaterally.

Brain - Yellowish purulent material in the posterior left lateral portion of the cerebellum.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Focal myocarditis.

Kidney - Moderate interstitial nephritis.

Liver - Focal cytoplasmic vacuolization.

Spleen - Extramedullary hematopoiesis.

Pancreas - Mild chronic arteritis with focal calcifications.

Thyroid - Follicular adenoma.

Adrenal - Focal medullary hyperplasia.

Testis - Moderate atrophy, unilaterally.

Brain - Multiple abscesses in cerebellum; mild meningitis.

Bone marrow - Hypercellularity.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A23LM

Low Dose Group (No. 5)

Path. No. 95885

Gross: Non-survivor; found dead after 628 days on study.

Kidney - Pale discoloration.

Mammary gland - Subcutaneous abscess in the left inguinal area.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Moderate chronic nephritis.

Liver - Mild perivascularitis.

Mammary gland - Abscess of soft tissue.

Testis - Moderate atrophy, bilaterally.

Prostate - Moderate glandular atrophy.

Urinary bladder - Mild submucosal edema.

Pituitary and thyroid were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. A26LM

Low Dose Group (No. 6) Path. No. 95715

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Mild consolidation.

Testis - Mild atrophy, unilaterally; moderate enlargement, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate interstitial pneumonitis.

Heart - Focal fibrosis.

Kidney - Moderate acute pyelonephritis and pyelitis.

Liver - Mild pericholangitis.

Pancreas - Severe focal chronic arteritis.

Pituitary - Focal chromophobe hyperplasia.

Adrenal - Pheochromocytoma.

Testis - Interstitial cell tumor, unilaterally; mild atrophy, unilaterally.

Seminal vesicle - Mild vesiculitis.

Prostate - Moderate prostatitis.

Eye - Mild retinal degeneration; posterior synechia.

All other organs examined microscopically were unremarkable.

Male Rat No. C4LM

Low Dose Group (No. 7)

Path. No. 93042

Gross: Non-survivor; found dead after 356 days on study.

Lung - Numerous subcapsular grayish nodules on all lobes.

Testis - Moderate atrophy, bilaterally.

Brain and pituitary exhibited marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild congestion.

Kidney - Mild chronic nephritis; severe congestion.

Liver - Severe congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion.

Testis - Moderate tubular atrophy, bilaterally.

Urinary bladder - Moderate trabeculation of mucosa.

Pituitary, mammary gland, brain, and spinal cord were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis, and were otherwise unremarkable.

Male Rat No. C12LM

Low Dose Group (No. 8)

Path. No. 95241

Gross: Non-survivor; sacrificed in extremis after 736 days on study.

Lung - Numerous subcapsular nodules on all lobes.

Adrenal - Mild enlargement, unilaterally.

Urinary bladder - Calculus in the lumen.

Testis - Marked atrophy, bilaterally.

Prostate - Marked atrophy.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonitis.

Kidney - Moderate congestion.

Liver - Focal cytoplasmic degeneration.

Thyroid - Focal squamous metaplasia.

Adrenal - Pheochromocytoma, unilaterally.

Testis - Moderate tubular atrophy.

Prostate - Moderate glandular atrophy; moderate acute prostatitis with focal necrosis.

Urinary bladder - Focal transitional cell dysplasia.

Bone marrow - Moderate erythropoiesis.

Pituitary and mammary gland were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. C20LM

Low Dose Group (No. 9) Path. No. 94903

Gross: Non-survivor; found dead after 690 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Focal chronic bronchitis; moderate edema.

Adrenal - Congestion of the medulla.

Heart, thyroid, and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C22LM

Low Dose Group (No. 10) Path. No. 95716

Gross: Survivor; sacrificed by design after 805 days on study.

Prostate - Slightly enlarged.

Adrenal - Markedly enlarged.

Lung - Numerous subcapsular grayish small nodules.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Squamous papilloma; focal submucosal edema.

Lung - Severe chronic murine pneumonia.

Heart - Mild hypertrophy of right ventricle.

Kidney - Mild interstitial nephritis; severe pyelitis; cortical abscess.

Liver - Extramedullary hematopoiesis.

Spleen - Extramedullary hematopoiesis.

Adrenal - Severe angiectasis; vacuolization of zona fasciculata,  
unilaterally.

Seminal vesicle - Moderate vesiculitis.

Prostate - Severe prostatitis.

Urinary bladder - Mild submucosal edema.

All other organs examined microscopically were unremarkable.

Male Rat No. C27LM

Low Dose Group (No. 11) Path. No. 95717

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Marked hyperemia.

Thyroid - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic nephritis.

Pancreas - Severe chronic arteritis.

Pituitary - Chromophobe adenoma.

Thyroid - Adenocarcinoma, well differentiated, primary.

Testis - Moderate chronic arteritis; focal tubular atrophy, unilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. C28LM

Low Dose Group (No. 12) Path. No. 95718

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Heart - Mild myocarditis; moderate focal fibrosis.

Kidney - Moderate chronic nephritis.

Liver - Extramedullary hematopoiesis.

Spleen - Extramedullary hematopoiesis.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis, unilaterally.

Testis - Focal tubular atrophy; mild arteritis, unilaterally.

Prostate - Mild glandular hypertrophy.

Urinary bladder was not examined.

All other organs examined microscopically were unremarkable.

Male Rat E3LM

Low Dose Group (No. 13) Path. No. 95835

Gross: Non-survivor; found dead after 611 days on study.

Prostate - Marked enlargement.

Pituitary - Marked enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Mild focal pyelitis.

Liver - Mild pericholangitis.

Spleen - Focal granuloma.

Adrenal - Focal cortical hyperplasia.

Prostate - Severe prostatitis.

Pituitary exhibited severe autolysis.

Thyroid and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E8LM

Low Dose Group (No. 14) Path. No. 93043

Gross: Non-survivor; found dead after 361 days on study.

Small intestine - Marked autolysis; no sections submitted.

All other organs examined grossly exhibited mild autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Moderate congestion.

Liver - Moderate congestion.

Spleen - Moderate reticulum hyperplasia; pigmentation.

Pancreas - Mild congestion.

Thyroid - Focal fatty infiltration.

Adrenal - Vacuolization of zona fasciculata; moderate congestion of medulla.

Prostate - Mild focal chronic prostatitis.

Small intestine, mammary gland, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat E15LM

Low Dose Group (No. 15) Path. No. 95719

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Marked consolidation of right anterior lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Severe chronic murine pneumonia in one section.

Kidney - Moderate interstitial nephritis.

Liver - Focal hyperplasia.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal vacuolization of zona fasciculata.

All other organs examined microscopically were unremarkable.

Male Rat No. E18LM

Low Dose Group (No. 16) Path. No. 95510

Gross: Non-survivor; sacrificed in extremis 777 days on study.

Heart - Thickened wall of right ventricle.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Heart - Moderate hypertrophy of right ventricle.

Kidney - Mild congestion.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Seminal vesicle - Tubular hypertrophy and hyperplasia.

Eye - Mild focal scleral atrophy, unilaterally.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. E191M

Low Dose Group (No. 17) Path. No. 94800

Gross: Non-survivor; found dead after 684 days on study.

Kidney - Moderate enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Severe chronic nephritis.

Adrenal - Mild vacuolization of zona fasciculata.

Thyroid and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E29LM

Low Dose Group (No. 18) Path. No. 95100

Gross: Non-survivor; found dead after 714 days on study.

Lung - Numerous subcapsular nodules, some filled with a purulent material in right lobes; left lobes diffusely hyperemic.

Liver - Prominent lobular architecture.

Kidney - Slight enlargement.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia with abscessation in one section; another section exhibits moderate hyperemia.

Heart - Focal fibrosis.

Kidney - Severe chronic nephritis.

Liver - Severe congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Moderate congestion; focal vacuolization of zona fasciculata.

Testis - Mild tubular atrophy; mild chronic arteritis.

Prostate - Mild glandular atrophy.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G2LM

Low Dose Group (No. 19) Path. No. 94902

Gross: Non-survivor; found dead after 689 days on study.

Lung - Numerous gray subcapsular nodules on all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Moderate myocarditis.

Kidney - Moderate chronic nephritis.

Adrenal - Cortical adenoma, unilaterally.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G4LM

Low Dose Group (No. 20)

Path. No. 95836

Gross: Non-survivor; found dead after 608 days on study.

Kidney - Pale discoloration.

Testis - Marked atrophy, bilaterally.

Seminal vesicle - Marked atrophy, bilaterally.

Prostate - Marked atrophy.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Patchy dystrophic calcification of mucosa, muscularis, serosa.

Lung - Focal calcification of alveolar septa; focal edema; focal pulmonary thromboemboli.

Heart - Focal dystrophic calcification of myocardium.

Kidney - Moderate chronic nephritis; focal dystrophic calcification of glomeruli and tubules.

Spleen - Moderate pigmentation and focal calcification.

Pancreas - Focal calcification of vessel wall.

Testis - Severe tubular atrophy, bilaterally.

Seminal vesicle - Moderate tubular atrophy, bilaterally.

Prostate - Severe glandular atrophy.

Small intestine, mammary gland, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G5LM

Low Dose Group (No. 21)

Path. No. 95210

Gross: Non-survivor; found dead after 725 days on study.

Pituitary - Moderate enlargement.

Lung - Well defined white spots on all lobes.

Tissue mass - Abscess located subcutaneously in left inguinal area and filled with a purulent material.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic bronchitis; moderate hyperemia.

Kidney - Mild chronic nephritis.

Liver - Moderate congestion; focal proliferation of small bile ducts.

Spleen - Moderate congestion.

Pituitary - Cyst in anterior lobe, focal calcification.

Adrenal - Mild congestion.

Mammary gland - Subcutaneous abscess filled with a suppurative material (tissue mass).

Testis - Mild tubular atrophy.

Prostate - Mild glandular hypertrophy.

Urinary bladder - Eosinophilic calculus in the lumen.

Brain - Focal calcifications in cerebellar cortex.

Eye - Focal chronic keratitis, bilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. G9LM

Low Dose Group (No. 22) Path. No. 95721

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Spotty white discoloration, bilaterally.

Lung - Numerous gray subcapsular nodules in all right lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Moderate interstitial nephritis.

Liver - Mild pericholangitis.

Pituitary - Cyst in anterior lobe.

Adrenal - Focal cortical hyperplasia.

Testis - Mild chronic arteritis.

All other organs examined microscopically were unremarkable.

Male Rat No. G10LM

Low Dose Group (No. 23) Path. No. 94752

Gross: Non-survivor; found dead after 638 days on study.

Testis - Marked atrophy, unilaterally.

Kidney - Moderate enlargement, mottled appearance, bilaterally.

Small and large intestines exhibited moderate autolysis, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal mucosal calcification.

Lung - Moderate hyperemia.

Heart - Focal chronic myocarditis; diffuse calcification.

Kidney - Severe chronic nephritis.

Liver - Mild congestion.

Spleen - Pigmentation; diffuse medial calcification of arterioles.

Pituitary - Mild congestion of anterior lobe.

Testis - Severe atrophy and severe chronic arteritis, unilaterally; focal atrophy, unilaterally.

Seminal vesicle - Mild chronic vesiculitis; diffuse medial calcification of vessels.

Prostate - Focal medial calcification of vessels.

Salivary gland - Focal medial calcification of vessels.

Small and large intestines, mammary gland, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G25LM

Low Dose Group (No. 24) Path. No. 95722

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mild interstitial nephritis.

Spleen - Pigmentation.

All other organs examined microscopically were unremarkable.



Male Rat No. J8LM

Low Dose Group (No. 25) Path. No. 95723

Gross: Survivor; sacrificed by design after 805 days on study.

Tissue mass - Round, yellowish-white, slightly firm nodule measuring  
2 X 3 X 2 cm in the thoracic cavity.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild interstitial pneumonitis.

Kidney - Moderate chronic nephritis.

Liver - Focal cytoplasmic degeneration.

Thyroid - Focal squamous metaplasia.

Adrenal - Medullary hyperplasia.

Urinary bladder - Focal submucosal edema.

Tissue mass - Liposarcoma of mediastinum.

All other organs examined microscopically were unremarkable.

Male Rat No. J9LM

Low Dose Group (No. 26) Path. No. 95724

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Numerous subcapsular grayish nodules in all lobes.

Adrenal - Slight enlargement, unilaterally.

Kidney - Mottled appearance with pale discoloration.

Seminal vesicle - Mild atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild focal fibrosis.

Kidney - Severe chronic nephritis.

Liver - Mild diffuse hyperplasia.

Pancreas - Focal severe chronic arteritis.

Adrenal - Pheochromocytoma, unilaterally.

Testis - Severe chronic arteritis.

Seminal vesicle - Mild tubular atrophy.

All other organs examined microscopically were unremarkable.

Male Rat No. J13LM

Low Dose Group (No. 27) Path. No. 96064

Gross: Non-survivor; found dead after 785 days on study.

Seminal vesicle - Mild atrophy, bilaterally.

Prostate - Mild atrophy.

Kidney - Mottled appearance, pale discoloration.

Liver - Prominent lobular architecture.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild acute bronchitis.

Heart - Focal myocarditis.

Kidney - Severe chronic nephritis; calcifications in pelvis.

Liver - Moderate diffuse fatty change; focal angiectasis.

Testis - Severe atrophy, mild orchitis, bilaterally.

Seminal vesicle - Mild tubular atrophy.

Prostate - Mild glandular atrophy.

Eye - Mild keratitis.

Pituitary, adrenal, and mammary gland were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. J16LM

Low Dose Group (No. 28)

Path. No. 95725

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate interstitial nephritis.

Liver - Focal hyperplasia; focal cytoplasmic vacuolization; mild pericholangitis.

Pituitary - Chromophobe hyperplasia.

Adrenal - Focal cortical hyperplasia.

Prostate - Focal chronic prostatitis.

Brain - Focal calcifications.

Testis was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J17LM

Low Dose Group (No. 29) Path. No. 95726

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Liver - Focal hyperplasia.

Spleen - Pigmentation.

Testis - Severe tubular atrophy, unilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. J27LM

Low Dose Group (No. 30) Path. No. 95837

Gross: Non-survivor; found dead after 605 days on study.

Kidney - Enlarged with pale discoloration, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Moderate chronic nephritis, bilaterally.

Liver - Mild nonsuppurative hepatitis.

Pancreas - Moderate chronic arteritis with focal calcifications.

Thyroid - Focal calcification.

Testis - Mild tubular atrophy, unilaterally.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L2LM

Low Dose Group (No. 31) Path. No. 95838

Gross: Non-survivor; found dead after 482 days on study.

Lung - Numerous subcapsular grayish nodules on all lobes.

Testis - Mild atrophy.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Moderate congestion.

Kidney - Mild chronic nephritis.

Liver - Moderate congestion.

Adrenal - Diffuse cortical thrombosis and necrosis.

Testis - Moderate tubular atrophy.

Prostate - Moderate glandular atrophy.

Thyroid and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L3LM

Low Dose Group (No. 32) Path. No. 95727

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Consolidation of all lobes with a pronounced nodularity of the surfaces.

Testis - Marked atrophy, unilaterally.

Prostate - Moderately enlarged.

Seminal vesicle - Small nodule measuring 10 X 8 X 5 mm, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Thyroid - Focal squamous metaplasia.

Testis - Severe tubular atrophy with calcifications, unilaterally.

Seminal vesicle - Severe vesiculitis.

Prostate - Severe prostatitis.

All other organs examined microscopically were unremarkable.



Male Rat No. L11LM

Low Dose Group (No. 33) Path. No. 95839

Gross: Non-survivor; found dead after 535 days on study.

Kidney - Mottled appearance.

Testis - Marked atrophy, bilaterally.

Prostate - Marked atrophy.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. L12LM

Low Dose Group (No. 34) Path. No. 93041

Gross: Non-survivor; found dead after 346 days on study.

Small and large intestines, brain, and pituitary exhibited marked autolysis and were not submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Moderate congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Mild congestion.

Testis - Mild tubular atrophy.

Small and large intestines, pituitary, mammary gland, brain, and spinal cord were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. L17LM

Low Dose Group (No. 35)

Path. No. 95728

Gross: Survivor; killed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Heart - Mild myocarditis.

Kidney - Moderate interstitial nephritis.

Pituitary - Chromophobe hyperplasia.

All other organs examined microscopically were unremarkable.

Male Rat No. L28LM

Low Dose Group (No. 36) Path. No. 95729

Gross: Survivor; sacrificed by design after 805 days on study.

Kidney - Mottled appearance with yellowish discoloration, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic nephritis.

Liver - Mild nonsuppurative hepatitis.

Spleen - Extramedullary hematopoiesis.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia; vacuolization of zona fasciculata.

Urinary bladder - Moderate submucosal edema.

Brain - Oligodendroglioma in lower medulla.

All other organs examined microscopically were unremarkable.

Female Rat No. B8LF

Low Dose Group (No. 1)

Path. No. 94904

Gross: Non-survivor; found dead after 692 days on study.

Mammary gland - Firm subcutaneous nodule measuring 1 X 1 X 1 cm in the right axilla.

Lung - Slight congestion.

Abdominal viscera exhibited mild autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate acute bronchitis.

Liver - Moderate congestion.

Spleen - Moderate congestion.

Mammary gland - Fibroadenoma.

Lymph node - Mild congestion.

Heart, adrenal, ovary, vagina, and urinary bladder were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B15LF

Low Dose Group (No. 2)

Path. No. 93087

Gross: Non-survivor; found dead after 386 days on study.

Mammary gland - Firm yellowish-gray mass measuring 2.5 X 2 X 1 cm located subcutaneously in the left inguinal area.

Lung - All lobes exhibited marked congestion.

Small and large intestines, ovary, uterus, vagina, brain and pituitary exhibited marked autolysis, no sections were submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Moderate congestion.

Spleen - Mild reticulum cell hyperplasia; pigmentation.

Pancreas - Mild congestion.

Mammary gland - Adenoma.

Small and large intestines, kidney, pituitary, ovary, uterus, vagina, brain and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B21LF

Low Dose Group (No. 3)

Path. No. 95502

Gross: Non-survivor; found dead after 764 days on study.

Pituitary - Markedly enlarged and hyperemic.

Lung - Diffuse hyperemia.

Liver - Prominent lobular architecture.

Mammary gland mass 1 - Subcutaneous, firm, measuring 4 X 2 X 1.5 cm in left axillary region.

Mass 2 - Subcutaneous, firm, measuring 12 X 12 X 3 mm in right axillary region.

Mass 3 - Measuring 10 X 7 X 3 mm located posterior to mass 1.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia; focal pulmonary edema.

Kidney - Moderate congestion.

Liver - Moderate congestion; moderate fatty change.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Focal cortical necrosis, unilaterally.

Mammary gland mass 1 - Cystadenoma

Mass 2 - Cystadenocarcinoma, well differentiated.

Mass 3 - Cystadenoma.

Uterus - Focal chronic cervicitis.

All other organs examined microscopically were unremarkable.

Female Rat No. B24LF

Low Dose Group (No. 4)

Path. No. 95886

Gross: Non-survivor; found dead after 798 days on study.

Mammary gland - Subcutaneous mass measuring 5 X 4 X 3 cm in the right axillary region.

Adrenal - Moderately enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal mucosal pigmentation.

Kidney - Focal mineral deposits in calyces.

Liver - Mild congestion.

Spleen - Diffuse pigmentation.

Pituitary - Mild congestion and chromophobe hyperplasia of anterior lobe.

Adrenal - Angiectasis, unilaterally.

Mammary gland - Cystic fibroadenoma.

Ovary - Focal fibrosis of stroma, bilaterally.

Urinary bladder - Focal submucosal edema.

All other organs examined microscopically were unremarkable.



Female Rat No. B25LF

Low Dose Group (No. 5)

Path. No. 95731

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged and hyperemic, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Calcifications in the pelvis.

Adrenal - Severe angiectasis, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. B27LF

Low Dose Group (No. 6)

Path. No. 95732

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Subcutaneous mass measuring 3 X 2.5 X 1.5 cm in the left axillary region.

Lung - Numerous grayish subcapsular nodules in the right anterior lobe.

Ovary - Firm yellowish nodule measuring 7 X 8 X 6 mm in the left ovary.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia in one section; other section unremarkable.

Kidney - Calcifications in the pelvis.

Thyroid - Mild follicular hyperplasia.

Adrenal - Moderate angiectasis.

Mammary gland - Cystic fibroadenoma.

Ovary - Fibroma.

All other organs examined microscopically were unremarkable.

Female Rat No. D10LF

Low Dose Group (No. 7)

Path. No. 92521

Gross: Non-survivor; sacrificed in extremis after 271 days on study.

Tissue mass - Subcutaneous, yellowish-gray, encapsulated mass measuring 9 X 8 X 4 cm located in the right dorsal lateral area.

All other organs examined grossly were unremarkable.

Microscopic:

Heart - Focal myocarditis.

Liver - Moderate nonsuppurative hepatitis; mild fatty change; mild congestion.

Lymph node - Reticulum cell hyperplasia.

Tissue mass - Subcutaneous angiofibroma.

All other organs examined microscopically were unremarkable.

Female Rat No. D11LF

Low Dose Group (No. 8)

Path. No. 95733

Gross: Survivor; sacrificed by design after 805 days on study.

Abdominal cavity - Firm yellowish nodule measuring 8 X 4 X 2 mm located next to the right ovary.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Mild chronic murine pneumonia.

Kidney - Calcifications in the pelvis.

Liver - Multifocal necrosis; focal cytoplasmic degeneration; mild proliferation of small bile ducts.

Thyroid - Focal squamous metaplasia.

Adrenal - Severe angiectasis; cortical hypertrophy.

Mammary gland - Mild focal adenomatous hyperplasia.

Ovary - Multiple follicular cysts.

Uterus - Endometrial abscess.

Tissue mass - Paraovarian lipoma.

All other organs examined microscopically were unremarkable.

Female Rat No. D14LF

Low Dose Group (No. 9)

Path. No. 95840

Gross: Non-survivor; found dead after 664 days on study.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Moderate calcification in the pelvis; mild congestion.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D26LF

Low Dose Group (No. 10)

Path. No. 95734

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Moderately enlarged.

Lung - Few subcapsular yellowish nodules in the right lobes.

Ovary - Left, cyst measuring 4 X 4 mm distended with clear fluid;  
Right, nodule measuring 4 X 5 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Focal dilatation of collecting tubules with eosinophilic casts.

Liver - Nodular hyperplasia.

Pituitary - Chromophobe hyperplasia.

Adrenal - Mild angiectasis; vacuolization of zona fasciculata.

Ovary - Cyst, unilaterally; stroma proliferation, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. D27LF

Low Dose Group (No. 11)

Path. No. 95841

Gross: Non-survivor; found dead after 472 days on study.

All organs examined grossly were markedly autolyzed.

Microscopic:

Liver - Focal mild fatty change.

Spleen - Pigmentation.

Large intestine, thyroid, and mammary gland were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. D30LF

Low Dose Group (No.12) Path. No. 95735

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Mass measuring 5.5 X 5 X 2.5 cm located subcutaneously in the left axillary region.

Pituitary - Moderately enlarged.

Thyroid - Small nodule measuring 1 X 1 mm on the surface.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Mild chronic murine pneumonia.

Liver - Focal hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Adenoma; focal squamous hyperplasia.

Adrenal - Pheochromocytoma.

Mammary gland - Fibroadenoma.

Urinary bladder was not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. F1LF

Low Dose Group (No. 13)

Path. No. 95736

Gross: Non-survivor; found dead after 800 days on study.

Pituitary - Markedly enlarged.

Adrenal - Moderately enlarged, bilaterally.

Tissue mass - Located on the surface of the left kidney and measuring  
3 X 2 X 2 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Infiltrating reticulum cell sarcoma, metastatic.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis, bilaterally.

Pancreas and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F3LF

Low Dose Group (No. 14)

Path. No. 95212

Gross: Non-survivor; found dead after 728 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Tissue mass located in the left inguinal area subcutaneously and measuring 4 X 3 X 2 cm; several abscesses located in the axillary regions.

Adrenal - Moderately enlarged, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild dilatation of both ventricles.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Nodular cortical hyperplasia, unilaterally.

Mammary gland - Cystic fibroadenoma.

Uterus - Cystic endometrial hyperplasia; acute endometritis and cervicitis.

Brain - Focal calcifications in cerebellar cortex.

All other organs examined microscopically were unremarkable.

Female Rat No. F4LF

Low Dose Group (No. 15)

Path. No. 95737

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Right, small cyst measuring 2 X 2 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Adrenal - Mild angiectasis, unilaterally.

Ovary - Cyst, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. F8LF

Low Dose Group (No. 16)

Path. No. 95738

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Subcapsular nodules on right lobes.

Kidney - Subcapsular cyst measuring 6 X 6 mm., left.

Mammary gland - Multinodular firm yellowish mass measuring 12 X 12 X 10 mm in the right axillary region.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Cortical cyst, unilaterally.

Spleen - Pigmentation.

Mammary gland - Fibroadenoma.

Ovary - Follicular cysts, bilaterally.

Uterus - Mild, focal endometritis.

Urinary bladder was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F12LF

Low Dose Group (No. 17)

Path. No. 95739

Gross: **Survivor**; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Thyroid - Left lobe markedly enlarged.

Ovary - Mild atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia; parathyroid: adenoma.

Adrenal - Moderate angiectasis.

Ovary - Mild atrophy, bilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. F20LF

Low Dose Group (No. 18)

Path. No. 95740

Gross: Survivor; sacrificed by design after 805 days on study.

Uterus - Smooth yellowish polyp measuring 9 X 3 X 1 mm in the right horn.

All other organs examined grossly were unremarkable.

Microscopic:

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis.

Uterus - Abscess of the endometrium.

All other organs examined microscopically were unremarkable.

Female Rat No. H3LF

Low Dose Group (No. 19)

Path. No. 95107

Gross: Non-survivor; found dead after 716 days on study.

Lung - Diffuse congestion.

Adrenal - Markedly enlarged, unilaterally.

Pituitary - Markedly enlarged.

Mammary gland - Subcutaneous multinodular mass measuring 20 X 13 X 10 mm.

Ovary - Cyst measuring 4 X 9 X 7 mm, unilaterally.

Uterus - Small mass measuring 20 X 9 X 9 mm in the left horn.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Dilated tubules with eosinophilic casts; calcifications in the pelvis.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Thyroid - Adenoma.

Adrenal - Severe necrosis, unilaterally.

Mammary gland - Cystadenoma.

Ovary - Cystic ovary, bilaterally.

Uterus - Leiomyoma; moderate endometritis.

Lymph node - Reticulum cell hyperplasia.

All other organs examined microscopically were unremarkable.

Female Rat No. H4LF

Low Dose Group (No. 20)

Path. No. 95097

Gross: Non-survivor; found dead after 698 days on study.

Pituitary - Markedly enlarged.

Lung - Diffuse hyperemia.

Mammary gland - Tissue mass measuring 2.5 X 1.5 X 1.5 cm in the right inguinal region;

tissue mass measuring 3 X 1.5 X 1.5 cm in the left inguinal region.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia; focal edema.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Moderate hyperplasia of anterior lobe.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hemorrhage.

Mammary gland - Adenocarcinoma, poorly differentiated, primary in both submitted masses.

Uterus - Mild chronic endometritis and cervicitis.

Brain - Undifferentiated carcinoma, metastatic.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. H14LF

Low Dose Group (No. 21)

Path. No. 95346

Gross: Non-survivor; sacrificed in extremis after 750 days on study.

Stomach - Focal ulcerations in the mucosa.

Mammary gland - Tissue mass measuring 2 X 2 X 1 cm in the right axillary region.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal squamous hyperplasia and hyperkeratosis of forestomach.

Small intestine - Focal lymphoid hyperplasia.

Kidney - Calcifications in the pelvis; transitional cell hyperplasia.

Liver - Focal hyperplasia.

Spleen - Pigmentation.

Adrenal - Moderate congestion with dilatation of sinusoids in zona reticularis.

Mammary gland - Cystadenoma.

Ovary - Follicular cyst, unilaterally.

Pituitary and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H20LF

Low Dose Group (No. 22)

Path. No. 95244

Gross: Non-survivor; found dead after 728 days on study.

Adrenal - Markedly enlarged, bilaterally.

Spleen - Markedly enlarged.

Mammary gland - Multinodular tissue mass measuring 9.5 X 8 X 4 cm  
located subcutaneously in the left inguinal area.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate tubular necrosis.

Liver - Mild congestion with focal necrosis.

Spleen - Reticulum cell hyperplasia; extramedullary hematopoiesis.

Adrenal - Massive angiectasis, bilaterally.

Mammary gland - Fibroadenoma.

Lymph node - Reticulum cell sarcoma, primary.

Large intestine was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H22LF

Low Dose Group (No. 23)

Path. No. 95842

Gross: Non-survivor; found dead after 641 days on study.

Thoracic cavity - Contains a large amorphous mass measuring 4 X 5 X 3 cm and encompassing the entire left lung and heart.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Reticulum cell sarcoma, metastatic; severe hyperemia; focal pneumonia.

Heart - Reticulum cell sarcoma, metastatic.

Liver - Severe congestion.

Pituitary - Chromophobe adenoma.

Lymph node - Reticulum cell sarcoma, primary in mediastinal lymph node.

Mammary gland and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H27LF

Low Dose Group (No. 24)

Path. No. 95843

Gross: Non-survivor; found dead after 482 days on study.

Lung - Tissue mass measuring 3 X 4 X 3 cm in right lobes.

Heart - White fibrous nodule in the right atrium.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Infiltrating liposarcoma, metastatic.

Heart - Liposarcoma, metastatic, infiltrating into epicardium.

Kidney - Focal calcifications in calyces.

Liver - Mild ductal proliferation.

Mediastinum - Liposarcoma, primary.

Mammary gland and ovary were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K3LF

Low Dose Group (No. 25)

Path. No. 96065

Gross: Non-survivor; found dead after 640 days on study.

Mammary gland - Mass 1, located subcutaneously in left axillary region and measuring 7 X 6 X 3 cm;

Mass 2, located subcutaneously in the right axillary region and measuring 2.5 X 3 X 1 cm.

All organs examined grossly exhibited mild autolysis.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Kidney - Mild interstitial nephritis.

Liver - Moderate nonsuppurative hepatitis; focal hyperplasia.

Spleen - Extramedullary hematopoiesis.

Thyroid - Focal squamous metaplasia.

Adrenal - Severe angiectasis.

Mammary gland - Mass 1, fibroadenoma; mass 2, adenocarcinoma, well differentiated.

Uterus - Mild endometritis.

Bone marrow - Mild hypercellularity.

Pituitary and vagina were not examined.

All other organs examined microscopically exhibited mild autolysis and were otherwise unremarkable.

Female Rat No. K6LF

Low Dose Group (No. 26)

Path. No. 95506

Gross: Non-survivor; found dead after 762 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Mass 1, located subcutaneously in right axillary region and measuring 5 x 4.5 x 3 cm; mass 2, located subcutaneously in the left axillary region and measuring 6 x 5 x 4.5 cm.

Stomach - Focal ulcerations in glandular portion.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal gastric ulcer in glandular portion.

Lung - Severe chronic murine pneumonia.

Kidney - Calcifications in the pelvis.

Liver - Mild chronic pericholangitis.

Pituitary - Chromophobe adenocarcinoma, well differentiated, primary.

Adrenal - Angiectasis.

Mammary gland - Mass 1, fibroadenoma; mass 2, adenoma.

Ovary - Focal calcifications.

Brain - Cerebellum, invading chromophobe adenocarcinoma, metastatic.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K8LF

Low Dose Group (No. 27) Path. No. 95741

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Numerous subcapsular greyish nodules in all lobes.

Adrenal - Mild enlargement, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Moderate interstitial nephritis.

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis; vacuolization of zona fasciculata, unilaterally.

Ovary - Cyst, unilaterally.

Brain - Focal calcifications.

Vagina was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K19LF                      Low Dose Group (No. 28)      Path. No. 94905

Gross: Non-survivor; found dead after 693 days on study.

Pituitary - Moderately enlarged.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Focal perivascular lymphocytic infiltration; mild hyperemia.

Kidney - Focal chronic nephritis; severe congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Thyroid, mammary gland and uterus were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. K22LF

Low Dose Group (No. 29)

Path. No. 95211

Gross: Non-survivor; sacrificed in extremis after 723 days on study.

Pituitary - Markedly enlarged.

Lung - Numerous greyish subcapsular nodules on all lobes.

Adrenal - Moderately enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Dilated tubules with eosinophilic casts.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Focal cortical hemorrhage, unilaterally.

Uterus - Mild acute endometritis.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K27LF

Low Dose Group (No. 30)

Path. No. 95742

Gross: Survivor; sacrificed by design after 805 days on study.

Uterus - Firm, multinodular mass measuring 7 x 4 x 5 cm in the left uterine horn.

Adrenal - Cyst, unilaterally.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Moderate diffuse dilatation of sinusoids in one lobe.

Pituitary - Chromophobe adenoma.

Adrenal - Cortical cyst, unilaterally.

Uterus - Fibrosarcoma.

Pancreas, vagina and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M1LF

Low Dose Group (No. 31)

Path. No. 95844

Gross: Non-survivor; found dead after 579 days on study.

Mammary gland - Subcutaneous mass measuring 2 X 1.5 X 1 cm in the right inguinal area.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mineral deposits in corticomedullary junction.

Adrenal - Mild congestion, bilaterally.

Mammary gland - Tissue mass described grossly was not available for further examination and processing.

All other organs examined microscopically exhibited mild autolysis and were otherwise unremarkable.

Female Rat No. M9LF

Low Dose Group (No. 32)

Path. No. 95743

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Mass 1, located subcutaneously in left axillary region measures 5 x 3.5 x 2.5 cm; mass 2, located subcutaneously in left inguinal region, measuring 2 x 1.5 cm; abscess in the right inguinal region.

Pituitary - Markedly enlarged.

Uterus - Right horn slightly enlarged.

Oviduct - Right, distended with creamy fluid.

Ovary - Right, large cyst measuring 2 x 2 x 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild focal chronic murine pneumonia.

Kidney - Cystic dilatation of the pelvis, unilaterally.

Liver - Focal hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate angiectasis.

Mammary gland - Mass 1 and 2: cystic fibroadenoma.

Ovary - Mucinous cyst, unilaterally.

Uterus - Moderate endometritis.

Oviduct - Multiple abscesses.

All other organs examined microscopically were unremarkable.

Female Rat No. MILLF

Low Dose Group (No. 33)

Path. No. 95503

Gross: Non-survivor; found dead after 754 days on study.

Pituitary - Markedly enlarged.

Adrenal - Slightly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic bronchitis.

Kidney - Focal calcifications.

Liver - Moderate congestion.

Spleen - Mild lymphoid hyperplasia; pigmentation.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate congestion; vacuolization of zona fasciculata, unilaterally.

Uterus - Mild endometrial hyperplasia; focal endometritis.

Brain - Mild congestion of leptomeningeal vessels and blood in ventricles.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M17LF

Low Dose Group (No. 34)

Path. No. 95745

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Adrenal - Markedly enlarged and hyperemic, bilaterally.

Mammary gland - Mass 1, located subcutaneously in left axillary region, measuring 3 x 3 x 2.5 cm; mass 2, located subcutaneously adjacent to mass 1, measuring 3 x 2 x 1 cm; mass 3, located subcutaneously in the right axillary region, measuring 2.5 x 2 x 1 cm; mass 4, located subcutaneously in the left inguinal region, measuring 3 x 1 x 1 cm; mass 5, located subcutaneously in the right inguinal region, measuring 2 x 1.5 x 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Focal hyperplasia.

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis; focal cortical hyperplasia, bilaterally.

Mammary gland - Masses 1, 3, 4: cystic fibroadenoma; mass 2: well differentiated papillary adenocarcinoma, primary; mass 5: cyst-adenoma.

Uterus - Adenomatous polyp.

All other organs examined microscopically were unremarkable.

Female Rat No. M20L<sup>W</sup>

Low Dose Group (No. 35) Path. No. 95746

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Pituitary - Focal chromophobe hyperplasia.

Adrenal - Medullary hyperplasia; focal calcification in medulla.

Ovary - Follicular cyst, unilaterally.

Vagina was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M23LF

Low Dose Group (No. 36)

Path. No. 95747

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Tissue mass located subcutaneously in the right cervical area and measuring 3.5 x 3 x 3 cm; tissue mass 2, located subcutaneously in the right inguinal area, measuring 4 x 3 x 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Pituitary - Chromophobe adenoma.

Mammary gland - Mass 1: papillary cystadenocarcinoma, well differentiated; mass 2: cystic fibroadenoma.

Uterus - Mild endometritis.

All other organs examined microscopically were unremarkable.



Male Rat No. A8MM

Medium Dose Group (No. 1)

Path. No. 95676

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Consolidation and yellowish discoloration in all right lobes.

Adrenal - Hyperemia, unilaterally.

Pituitary - Slightly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Reticulum cell sarcoma, metastatic.

Kidney - Mild interstitial nephritis.

Pituitary - Chromophobe hyperplasia; cyst in pars intermedia.

Adrenal - Pheochromocytoma.

All other organs examined microscopically were unremarkable.

Male Rat No. A14MM Medium Dose Group (No. 2) Path. No. 95826

Gross: Non-survivor; found dead after 560 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. A16NM

Medium Dose Group (No. 3) Path. No. 95827

Gross: Non-survivor; found dead after 670 days on study.

Stomach - Invagination of mucosa measuring approximately 3 x 3 mm.

Pituitary - Markedly enlarged.

Lung - Diffuse hyperemia.

Testis - Marked atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Diverticulum in forestomach; focal mucosal necrosis.

Lung - Moderate hyperemia.

Heart - Moderate hypertrophy of left ventricle.

Pituitary - Chromophobe adenoma.

Adrenal - Focal cortical hyperplasia.

Testis - Severe tubular atrophy, bilaterally.

Pancreas and mammary glands were not examined.

All other organs examined microscopically exhibited mild autolysis and were otherwise unremarkable.

Male Rat No. A18MM Medium Dose Group (No. 4) Path. No. 95341

Gross: Non-survivor; found dead after 741 days on study.

Adrenal - Markedly enlarged.

Kidney - Markedly enlarged with pale discoloration.

Lung - Numerous greyish subcapsular nodules on all lobes.

Tissue mass located subcutaneously in the left dorsal area of the thoracic region, measuring 4 x 3 x 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Focal myocarditis.

Kidney - Severe chronic nephritis; moderate pyelitis.

Liver - Mild fatty change.

Spleen - Mild nonspecific chronic splenitis.

Adrenal - Cortical adenoma.

Testis - Mild tubular atrophy, bilaterally.

Prostate - Severe acute prostatitis with calcifications.

Large vessel - Severe atherosclerosis with calcifications.

Tissue mass - Subcutaneous fibroma.

Pituitary and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A22MM

Medium Dose Group (No. 5) Path. No. 95677

Gross: Survivor; sacrificed by design after 805 days on study.

Kidney - Mottled appearance with yellowish discoloration.

Testis - Moderate atrophy, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic nephritis.

Testis - Severe atrophy; moderate arteritis, unilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. A25MM

Medium Dose Group (No. 6) Path. No. 95678

Gross: Survivor; sacrificed by design after 805 days on study.

Testis - Marked atrophy, unilaterally; marked enlargement, unilaterally.

Seminal vesicle - Marked atrophy, bilaterally.

Mesentery - Firm yellowish nodule measuring 1 cm in diameter.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate interstitial nephritis.

Liver - Multifocal cytoplasmic degeneration.

Pancreas - Mild arteritis.

Testis - Interstitial cell tumor, unilaterally; severe atrophy with moderate arteritis, unilaterally.

Seminal vesicle - Moderate tubular atrophy.

Prostate - Mild glandular atrophy.

Mesentery - Lipoma.

Pituitary and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C1MM

Medium Dose Group (No. 7)

Path. No. 95679

Gross: Survivor; sacrificed by design after 805 days on study.

Kidney - Marked enlargement with yellowish discoloration.

Testis - Marked atrophy, bilaterally.

Tissue mass located subcutaneously in the right inguinal area  
measuring 2.5 X 2 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild fibrosis.

Kidney - Severe chronic nephritis.

Liver - Moderate diffuse fatty change in centrilobular areas.

Adrenal - Pheochromocytoma.

Mammary gland - Adenocarcinoma, well-differentiated, primary (tissue mass).

Testis - Severe tubular atrophy, bilaterally.

Seminal vesicle - Moderate tubular atrophy.

Prostate - Severe prostatitis.

Urinary bladder - Papillary transitional cell carcinoma, well-  
differentiated (grade I), primary.

Omentum - Severe atherosclerosis in some arteries.

All other organs examined microscopically were unremarkable.

Male Rat No. C5MM

Medium Dose Group (No. 8) Path. No. 95680

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic interstitial pneumonitis.

Kidney - Focal peripelvic lymphocytic infiltration, unilaterally.

Testis - Mild tubular atrophy, unilaterally.

Seminal vesicle - Moderate tubular atrophy, unilaterally.

Prostate - Mild glandular atrophy.

Urinary bladder - Mild mucosal trabeculation.

All other organs examined microscopically were unremarkable.



Male Rat No. C6MM

Medium Dose Group (No. 9) Path. No. 93038

Gross: Non-survivor; found dead after 356 days on study.

Lung - Two small, discrete, dark-brown nodules located on the dorsal surface of two lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe acute fibrosing bronchitis; subcapsular fibrous nodule.

Kidney - Moderate congestion.

Liver - Severe congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion.

Prostate - Mild focal acute prostatitis.

Pituitary, mammary gland and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C7MM

Medium Dose Group (No. 10) Path. No. 95681

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Numerous greyish subcapsular nodules in right lobes.

Testis - Marked atrophy, unilaterally.

Urinary bladder - Calculus in the lumen.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Mild focal fibrosis.

Kidney - Moderate chronic nephritis.

Testis - Moderate tubular atrophy, unilaterally.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C18MM

Medium Dose Group (No. 11) Path. No. 95682

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Marked hyperemia.

Testis - Marked atrophy, unilaterally.

Seminal vesicle - Marked atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Cortical adenoma, unilaterally; moderate chronic nephritis, bilaterally.

Pituitary - Chromophobe adenoma.

Thyroid - Mild cellular hyperplasia of parathyroid, unilaterally.

Testis - Moderate tubular atrophy, unilaterally.

Seminal vesicle - Mild tubular atrophy.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C23MM

Medium Dose Group (No. 12) Path. No. 94901

Gross: Non-survivor; found dead after 695 days on study.

Heart - Slightly enlarged.

Lung - Numerous subcapsular nodules on all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild hypertrophy and dilatation of right ventricle.

Kidney - Moderate interstitial nephritis.

Liver - Moderate congestion.

Adrenal - Focal hemorrhages.

Testis - Moderate tubular atrophy, unilaterally.

Urinary bladder - Focal suppurative cystitis.

Large intestine and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E9MM

Medium Dose Group (No. 13) Path. No. 93037

Gross: Non-survivor; found dead after 354 days on study.

Small intestine - Marked autolysis; no section submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Severe chronic murine pneumonia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Mild congestion of medulla; pigment in zona reticularis.

Testis - Mild tubular atrophy.

Salivary gland - Severe atrophy.

Stomach, small intestine, mammary gland and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E10MM

Medium Dose Group (No. 14) Path. No. 95684

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Calcifications in the pelvis.

Testis - Mild tubular atrophy, unilaterally.

Seminal vesicle - Mild tubular atrophy, bilaterally.

Prostate - Mild glandular atrophy.

Urinary bladder - Focal submucosal edema.

Pancreas was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E17MM

Medium Dose Group (No. 15) Path. No. 95685

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Lung - Consolidation of one right lobe.

Adrenal - Dark-brown area on the surface, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe interstitial pneumonitis in one section.

Kidney - Mild interstitial nephritis.

Pituitary - Chromophobe adenoma.

Adrenal - Cortical adenoma.

All other organs examined microscopically were unremarkable.

Male Rat No. E20MM

Medium Dose Group (No. 16) Path. No. 95686

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Mild pericholangitis.

Adrenal - Mild angiectasis.

All other organs examined microscopically were unremarkable.



Male Rat No. E24MM

Medium Dose Group (No. 17) Path. No. 95687

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis.

Thyroid - Focal squamous metaplasia.

Urinary bladder - Focal submucosal edema.

All other organs examined microscopically were unremarkable.

Male Rat No. E27MM

Medium Dose Group (No. 18) Path. No. 93206

Gross: Non-survivor; found dead after 414 days on study.

Lung - Moderate diffuse hyperemia.

Eye - Opaque cornea, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia in one section.

Kidney - Mild congestion.

Liver - Severe congestion.

Spleen - Pigmentation.

Pancreas - Mild congestion.

Adrenal - Moderate congestion.

Testis - Focal tubular atrophy.

Seminal vesicle - Mild hypertrophy of muscularis.

Salivary gland - Mild congestion.

Eye - Focal acute inflammation; opacification of cornea with focal sloughing of retinal epithelium, bilaterally.

Small and large intestine, pituitary, mammary gland, urinary bladder, brain and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G3MM

Medium Dose Group (No. 19) Path. No. 95688

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis.

Urinary bladder - Calculus in the lumen.

All other organs examined microscopically were unremarkable.

Male Rat No. G11MM

Medium Dose Group (No. 20) Path. No. 93203

Gross: Non-survivor; found dead after 395 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Severe hyperemia.

Heart - Small foci of ischemic necrosis.

Kidney - Mild interstitial nephritis.

Thyroid - Moderate congestion.

Adrenal - Moderate congestion.

Testis - Mild tubular atrophy, unilaterally.

All other organs examined microscopically exhibited severe autolysis.

Male Rat No. G19MM

Medium Dose Group (No. 21) Path. No. 95096

Gross: Non-survivor; found dead after 707 days on study.

Mediastinum - Abscess found lateral to the trachea.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia; focal peripheral emphysema.

Kidney - Mild chronic nephritis; focal calcifications.

Liver - Hepatocellular adenoma; moderate congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Focal vacuolization of zona fasciculata.

Testis - Mild tubular atrophy.

Prostate - Moderate glandular atrophy.

Tissue mass - Two chronic abscesses filled with necrotic and cellular debris.

Large intestine and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G21MM

Medium Dose Group (No. 22) Path. No. 95689

Gross: Survivor; sacrificed by design after 805 days on study.

Eye - Corneal haziness, unilaterally.

Pituitary - Marked enlargement.

Testis - Marked atrophy, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe interstitial nephritis.

Liver - Moderate multifocal hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Mild follicular hyperplasia.

Adrenal - Focal vacuolization of zona fasciculata.

Testis - Severe tubular atrophy; moderate arteritis, unilaterally.

Eye - Finding not consistent with gross description in submitted section.

All other organs examined microscopically were unremarkable.

Male Rat No. G22MM

Medium Dose Group (No. 23) Path. No. 95690

Gross: Survivor; sacrificed by design after 805 days on study.

Tissue mass - Semifirm yellowish nodule measuring 4 x 2 x 1 cm  
adherent to the lateral wall of the abdominal cavity.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Moderate interstitial nephritis.

Liver - Focal cytoplasmic degeneration.

Spleen - Pigmentation.

Omentum - Lipoma.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G28MM

Medium Dose Group (No. 24) Path. No. 95828

**Gross:** Non-survivor; found dead after 782 days on study.

Tissue mass located subcutaneously in the central axillary region and measuring 12 x 11 x 5 cm.

All organs examined grossly exhibited marked autolysis.

**Microscopic:**

All organs examined microscopically exhibited moderate to severe autolysis.

Tissue mass sections exhibited complete autolysis, making the microscopic diagnosis impossible. The animal was excluded from the study.



Male Rat No. J10MM

Medium Dose Group (No. 25) Path. No. 95691

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mild interstitial nephritis.

Liver - Focal hyperplasia; focal cytoplasmic degeneration.

Stomach was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J14MM

Medium Dose Group (No. 26) Path. No. 95692

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Pituitary - Chromophobe hyperplasia.

Adrenal - Cortical hyperplasia and vacuolization of zona fasciculata.

All other organs examined microscopically were unremarkable.

Male Rat No. J19MM

Medium Dose Group (No. 27) Path. No. 95500

Gross: Non-survivor; found dead after 754 days on study.

Heart - Thickening of right ventricle.

Lung - Numerous subcapsular greyish nodules in all right lobes.

Kidney - Marked enlargement with yellowish discoloration.

Testis - Slight atrophy, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Subserosal leiomyoma.

Lung - Severe chronic murine pneumonia.

Heart - Moderate hypertrophy of right ventricle.

Kidney - Severe chronic nephritis.

Liver - Mild nonsuppurative hepatitis; proliferation of small bile ducts.

Spleen - Mild lymphoid hyperplasia.

Pancreas - Islet cell adenoma; moderate chronic arteritis.

Pituitary - Focal hemorrhage of anterior lobe.

Thyroid - Focal squamous metaplasia.

Adrenal - Pheochromocytoma; cortical adenoma.

Testis - Mild tubular atrophy; chronic arteritis, bilaterally.

Seminal vesicle - Mild tubular atrophy.

Prostate - Moderate glandular atrophy.

Lymph node - Reticulum cell sarcoma.

Mesentery - Chronic vasculitis.

All other organs examined microscopically were unremarkable.

Male Rat No. J20MM

Medium Dose Group (No. 28) Path. No. 95829

Gross: Non-survivor; found dead after 782 days on study.

Pituitary - Slightly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia; mild focal bronchiectasis.

Kidney - Mild chronic nephritis.

Liver - Moderate congestion.

Pituitary - Hyperplasia and moderate congestion of anterior lobe.

Thyroid - Mild cellular hyperplasia of parathyroid, unilaterally.

Testis - Mild tubular atrophy.

Prostate - Moderate glandular atrophy.

Brain - Focal inflammation.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J25MM      Medium Dose Group (No. 29)      Path. No. 94055

Gross: Non-survivor; found dead after 554 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. J26MM

Medium Dose Group (No. 30)

Path. No. 92996

Gross: Non-survivor; found dead after 353 days on study.

Lung - Numerous subcapsular greyish nodules on all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild congestion.

Kidney - Moderate congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion.

Pancreas, mammary gland and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L6MM Medium Dose Group (No. 31) Path. No. 94900

Gross: Non-survivor; found dead after 683 days on study.

Lung - Nodular appearance of one right lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia in one section; moderate hyperemia.

Heart - Focal myocarditis.

Kidney - Mild interstitial nephritis.

Liver - Moderate congestion.

Pancreas - Patchy ductal proliferation; islet cell hyperplasia.

Adrenal - Focal cortical hyperplasia.

Pituitary and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L8MM

Medium Dose Group (No. 32) Path. No. 95693

Gross: Survivor; sacrificed by design after 805 days on study.

Kidney - Mottled appearance.

Urinary bladder - Calculus in the lumen.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe chronic interstitial nephritis.

Adrenal - Pheochromocytoma.

All other organs examined microscopically were unremarkable.



Male Rat No. L13MM

Medium Dose Group (No. 33) Path. No. 95830

Gross: Non-survivor; found dead after 782 days on study.

Kidney - Markedly enlarged with yellowish discoloration; small cystic lesion, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal calcifications in mucosa and serosa.

Small intestine - Parasitic nematodes in the lumen.

Large intestine - Focal calcifications in media of mesenteric vessels.

Lung - Mild chronic murine pneumonia.

Heart - Focal pancardial calcifications.

Kidney - Severe chronic nephritis; focal subcapsular cyst, unilaterally.

Liver - Moderate congestion.

Pancreas - Focal calcifications of vascular media.

Pituitary - Mild congestion.

Testis - Mild tubular atrophy, bilaterally.

Seminal vesicle - Mild tubular atrophy.

Prostate - Moderate glandular atrophy.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L14MM

Medium Dose Group (No. 34) Path. No. 95694

Gross: Non-survivor; found dead after 792 days on study.

Lung - Numerous subcapsular greyish nodules on all lobes.

Testis - Marked atrophy, bilaterally.

Kidney - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Severe interstitial nephritis.

Liver - Moderate congestion.

Pancreas - Severe focal chronic arteritis.

Pituitary - Chromophobe adenoma.

Testis - Severe tubular atrophy, bilaterally; moderate chronic arteritis, bilaterally.

Seminal vesicle - Mild tubular atrophy.

Prostate - Mild glandular atrophy.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L16MM

Medium Dose Group (No. 35) Path. No. 95695

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Severe interstitial nephritis; small cyst in the cortex, unilaterally.

Liver - Focal cytoplasmic vacuolization.

Thyroid - Mild follicular hyperplasia.

Seminal vesicle - Mild tubular atrophy, unilaterally.

Prostate - Moderate glandular atrophy.

Urinary bladder - Focal submucosal edema.

All other organs examined microscopically were unremarkable.

Male Rat No. L18MM Medium Dose Group (No. 36) Path. No. 95696

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

All organs examined microscopically were unremarkable.

Female Rat No. B4MF

Medium Dose Group (No. 1) Path. No. 95697

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis.

Ovary - Mild atrophy, bilaterally.

Uterus - Mild glandular atrophy.

All other organs examined microscopically were unremarkable.

Female Rat No. B5MF

Medium Dose Group (No. 2) Path. No. 95698

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Heart - Focal fibrosis.

Ovary was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B7MF

Medium Dose Group (No. 3) Path. No. 95699

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, bilaterally.

Uterus - Small mass measuring 10 X 10 mm in the left horn.

Small intestine - Nodule measuring 1 X 1 cm in jejunum.

Mammary gland - Mass 1: Located subcutaneously in the right inguinal area and measuring 9 X 5 X 3 cm; mass 2: Located subcutaneously in the left axillary region measuring 2.5 X 2 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Small intestine - Angioma in the serosa.

Pituitary - Chromophobe hyperplasia.

Adrenal - Moderate angiectasis.

Mammary gland - Mass 1: Cystic fibroadenoma; mass 2: adenocarcinoma, well differentiated.

Ovary - Cyst, bilaterally.

Uterus - Adenocarcinoma.

Lung and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B19MF      Medium Dose Group (No. 4)      Path. No. 95240

Gross: Non-survivor; sacrificed in extremis after 738 days on study.

Pituitary - Markedly enlarged.

Uterus - Small nodule measuring 1.5 X 1 X 1 cm attached to the surface of the body.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild interstitial pneumonitis.

Heart - Focal myocarditis.

Spleen - Pigmentation.

Pituitary - Severe hyperemia with hemorrhages; severe necrosis.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia with vacuolization of zona fasciculata.

Ovary - Follicular cyst, unilaterally.

Uterus - Lipoma attached to the serosal surface.

Mammary gland was not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. B23MF      Medium Dose Group (No. 5)    Path. No. 95700

Gross: Survivor; sacrificed by design after 500 days on study.

Pituitary - Hyperemia.

Kidney - Cyst measuring 3 X 5 mm, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis; calcifications in the pelvis;  
cortical cyst, unilaterally.

Liver - Focal hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia.

Brain - Three sections of the brain contain invaginated portion of  
chromophobe adenoma.

Ovary and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B28MF      Medium Dose Group (No. 6)      Path. No. 95701

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

Adrenal - Markedly enlarged, unilaterally.

Mammary gland - Subcutaneous mass measuring 2.5 X 1.5 X 1 cm in the right axillary region.

Ovary - Cysts on the surface.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Focal myocarditis.

Kidney - Calcifications in the pelvis; dilated tubules with eosinophilic casts.

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis, unilaterally.

Mammary gland - Adenoma.

Ovary - Cysts, bilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. D1MF                      Medium Dose Group (No. 7)    Path. No. 94333

Gross:    Non-survivor; found dead after 616 days on study.

Kidney - Markedly enlarged with pale discoloration, bilaterally.

Large intestine - Markedly autolyzed, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia and focal emphysema.

Kidney - Severe chronic nephritis.

Liver - Mild congestion.

Spleen - Pigmentation.

Pituitary - Mild congestion.

Adrenal - Mild congestion.

Uterus - Mild endometrial hyperplasia; mild chronic cervicitis.

Bone marrow - Mild hypocellularity.

Large intestine and mammary gland were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D5MF                      Medium Dose Group (No. 8)    Path. No. 93040

Gross: Non-survivor; found dead after 355 days on study.

Small and large intestines - Markedly autolyzed, no sections submitted.

All other organs examined grossly exhibited moderate to severe autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild hyperemia.

Liver - Severe congestion.

Urinary bladder - Focal sloughing of transitional epithelium.

Small and large intestines, spleen, pancreas, mammary gland and spinal cord were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. D9MF

Medium Dose Group (No. 9) Path. No. 95702

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Nodular appearance in right lobes.

Mammary gland - Nodule measuring 10 X 5 X 3 mm in the right inguinal area.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Focal hyperplasia.

Adrenal - Mild angiectasis.

Mammary gland - Dilatation of glands with partially calcified contents.

Eye - Focal retinal degeneration, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. D23MF

Medium Dose Group (No. 10) Path. No. 95507

Gross: Non-survivor; found dead after 766 days on study.

Lung - Mottled appearance.

Spleen - Moderately enlarged.

Uterus - Enlarged body.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate interstitial pneumonitis; hemorrhagic areas containing large amounts of eosinophilic crystals.

Kidney - Focal calcifications in the pelvis.

Liver - Reticulum cell sarcoma, metastatic.

Spleen - Reticulum cell sarcoma, primary.

Adrenal - Vacuolization in zona fasciculata.

Uterus - Fibromatous polyp with hemorrhagic areas and necrosis.

Lymph node - Reticulum cell sarcoma, metastatic.

Pituitary, mammary gland, vagina, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D24MF

Medium Dose Group (No. 11)

Path. No. 95703

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

Liver - Yellowish discoloration.

Mammary gland - Mass 1: Located subcutaneously in the left thoracic area and measuring 5 X 4 X 1.5 cm; mass 2: located subcutaneously in the left inguinal area and measuring 2 X 3 X 1.5 cm.

Uterus - Yellowish-white nodule measuring 5 X 5 X 3 mm located at the bifurcation.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Severe nonsuppurative hepatitis.

Spleen - Massive extramedullary hematopoiesis.

Pituitary - Chromophobe hyperplasia.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia.

Mammary gland - Mass 1: Papillary adenocarcinoma, well differentiated; mass 2: severe mastitis.

Uterus - Endometrial abscess.

Urinary bladder - Focal submucosal edema.

All other organs examined microscopically were unremarkable.

Female Rat No. D25MF

Medium Dose Group (No. 12) Path. No. 95834

Gross: Non-survivor; found dead after 623 days on study.

Ovary - Small cyst on the surface, unilaterally.

Lung - Hyperemia.

Mammary gland - Subcutaneous mass in the left inguinal region  
measuring 4 X 2 X 2 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia; mild peribronchial lymphoid hyperplasia.

Kidney - Calcifications in calyces.

Liver - Moderate congestion.

Thyroid - Focal squamous metaplasia.

Adrenal - Angiectasis; focal cortical hyperplasia.

Mammary gland - Fibroadenoma.

Ovary - Cystic ovary, bilaterally.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. F2MF

Medium Dose Group (No. 13) Path. No. 95704

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Hyperemia.

Adrenal - Markedly enlarged, unilaterally.

Ovary - Cyst, unilaterally.

Lung - Nodular appearance in right lobes.

Uterus - Small yellowish-white polyp in the right horn; small yellowish-white nodule in the left horn.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Dilated tubules with eosinophilic casts.

Liver - Mild cytoplasmic degeneration.

Pancreas - Moderate chronic arteritis.

Pituitary - Chromophobe hyperplasia.

Adrenal - Severe angiectasis, unilaterally.

Ovary - Cyst, unilaterally.

Uterus - Endometrial abscess, unilaterally; adenomatous polyp associated with glandular hyperplasia, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. F7MF

Medium Dose Group (No. 14) Path. No. 95501

Gross: Non-survivor; found dead after 763 days on study.

Lung - Nodular appearance of one right lobe; all other lobes are hyperemic.

Adrenal - Markedly enlarged, bilaterally.

Mammary gland - Subcutaneous mass in the left axillary region measuring 3 X 2.5 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia in one section; another section exhibits moderate hyperemia.

Liver - Moderate congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion, bilaterally.

Mammary gland - Fibroadenoma.

Uterus and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F9MF

Medium Dose Group (No. 15) Path. No. 95509

Gross: Non-survivor; found dead after 744 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Subcutaneous mass in the right axillary region measuring 1.5 X 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma with severe focal hemorrhage.

Adrenal - Severe congestion.

Mammary gland - Cystadenoma.

Uterus - Mild focal endometritis.

Urinary bladder - Mild muscular hypertrophy.

Brain and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F10MF

Medium Dose Group (No. 16) Path. No. 95705

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Nodular appearance of left lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia; papillary projections in some bronchi.

Pancreas - Focal pancreatitis.

All other organs examined microscopically were unremarkable.

Female Rat No. F21MF

Medium Dose Group (No. 17) Path. No. 95831

Gross: Non-survivor; found dead after 653 days on study.

Adrenal - Markedly enlarged, unilaterally.

Pituitary - Slightly enlarged.

Mammary gland - Mass 1: Located subcutaneously in the left inguinal area measuring 5 X 3 X 2 cm; mass 2: located subcutaneously in the thoracic region measuring 9.5 X 8 X 5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Adrenal - Moderate angiectasis; cortical hyperplasia, unilaterally.

Mammary gland - Mass 1: Benign mixed tumor; mass 2: Cystadenoma.

Uterus - Focal acute endometritis.

Small intestine and pituitary were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. F24MF                      Medium Dose Group (No. 18) Path. No. 95342

Gross:      Non-survivor; sacrificed in extremis after 747 days on study.

Pituitary - Markedly enlarged.

Stomach - Small ulcerations in forestomach.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Gastric ulcer in the forestomach.

Heart - Focal fibrosis.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma, severely necrotic.

Mammary gland and vagina were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H2MF

Medium Dose Group (No. 19) Path. No. 95345

Gross: Non-survivor; found dead after 748 days on study.

Pituitary - Markedly enlarged.

Ovary - Cyst, unilaterally.

Adrenal - Markedly enlarged, unilaterally.

Mammary gland - Subcutaneous mass in left inguinal region measuring  
5.5 X 4 X 2.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Mild congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Pheochromocytoma.

Mammary gland - Cystadenoma.

Ovary - Follicular cyst, unilaterally.

Vagina was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H8MF

Medium Dose Group (No. 20) Path. No. 95104

Gross: Non-survivor; sacrificed in extremis after 706 days on study.

Pituitary - Markedly enlarged.

Lung - Diffuse nodular appearance.

Mammary gland - Abscesses in inguinal region.

All other organs examined grossly were unremarkable.

Microscopic:

Small intestine - Focal hyperemia.

Lung - Severe chronic murine pneumonia.

Kidney - Mild congestion.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pancreas - Focal arteriosclerosis; severe focal chronic vasculitis.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Mammary gland - Cystadenoma.

Brain - Focal hemorrhages in cerebellum.

Adrenal, ovary, uterus, vagina, and urinary bladder were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. H17MF

Medium Dose Group (No. 21) Path. No. 96062

Gross: Non-survivor; found dead after 635 days on study.

Pituitary - Markedly enlarged.

Mammary gland - Subcutaneous mass in the right inguinal region measuring 3 X 3 X 2.5 cm.

All organs examined grossly exhibited moderate autolysis.

Microscopic:

Lung - Moderate hyperemia.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Cyst in anterior lobe.

Adrenal - Mild angiectasis.

Mammary gland - Fibroadenoma.

Vagina was not examined.

All other organs examined microscopically exhibited mild to severe autolysis and were otherwise unremarkable.

Female Rat No. H26MF

Medium Dose Group (No. 22) Path. No. 95832

Gross: Non-survivor; found dead after 657 days on study.

Uterus - Firm mass measuring 2 X 1 X 0.5 cm in the right horn.

Mammary gland - Subcutaneous mass in the cervical region measuring  
4 X 3.5 X 2 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Focal calcifications in the pelvis.

Liver - Mild pericholangitis; dark black pigment in RES cells.

Pituitary - Chromophobe cell hyperplasia.

Adrenal - Focal inflammation and pigmentation of zona fasciculata.

Mammary gland - Chronic abscess.

Uterus - Angiomatous fibroma.

Vagina and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H28MF

Medium Dose Group (No. 23) Path. No. 95706

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

Adrenal - Hyperemia, bilaterally.

Mammary gland - Subcutaneous mass in the left cervical area measuring  
5.5 X 6 X 3 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Focal interstitial nephritis.

Spleen - Pigmentation.

Pituitary - Chromophobe hyperplasia.

Thyroid - Adenoma; focal squamous metaplasia.

Mammary gland - Fibroadenoma.

Vagina was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H29MF

Medium Dose Group (No. 24) Path. No. 95833

Gross: Non-survivor; found dead after 662 days on study.

Tissue mass - Located subcutaneously in the right pelvic area and measuring 5.5 X 5 X 3 cm; another amorphous mass located in the lower abdominal cavity surrounding both kidneys.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Abscess in the forestomach.

Lung - Reticulum cell sarcoma, metastatic; moderate interstitial pneumonitis.

Heart - Reticulum cell sarcoma, metastatic.

Kidney - Pararenal reticulum cell sarcoma, metastatic; dilated pelvis, unilaterally.

Liver - Reticulum cell sarcoma, metastatic.

Spleen - Reticulum cell sarcoma, metastatic.

Pancreas - Reticulum cell sarcoma, metastatic.

Adrenal - Reticulum cell sarcoma, metastatic in surrounding tissues; angiectasis; vacuolization of zona fasciculata.

Ovary - Reticulum cell sarcoma, metastatic.

Vagina - Reticulum cell sarcoma, metastatic.

Lymph node - Reticulum cell sarcoma, primary.

Brain - Reticulum cell sarcoma, metastatic in meninges.

Tissue mass - Reticulum cell sarcoma, metastatic.

Pituitary and urinary bladder were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K2MF

Medium Dose Group (No. 25) Path. No. 93039

Gross: Non-survivor; found dead after 347 days on study.

Lung - Nodular appearance in all lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Moderate congestion.

Liver - Severe congestion.

Spleen - Pigmentation.

Mammary gland, urinary bladder and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K9MF

Medium Dose Group (No. 26) Path. No. 95707

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Spleen - Markedly enlarged.

Adrenal - Markedly enlarged, unilaterally.

Mammary gland - Subcutaneous nodule located in the right axillary area measuring 1 cm in diameter.

Uterus - Multinodular yellowish firm mass measuring 7 X 7 X 3 cm at the bifurcation.

Liver - All lobes exhibit numerous small round firm nodules.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mild interstitial nephritis; calcification in the pelvis.

Liver - Hepatocellular adenoma.

Spleen - Reticulum cell sarcoma, primary.

Pituitary - Chromophobe adenoma.

Thyroid - Adenocarcinoma, well differentiated, primary.

Adrenal - Severe angiectasis, unilaterally.

Mammary gland - Galactoceles

Uterus - severe endometritis with abscessation; focal squamous metaplasia

Ovary, vagina and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K14MF

Medium Dose Group (No. 27) Path. No. 95708

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Calcifications in calyces, unilaterally.

Liver - Mild perivascularitis.

All other organs examined microscopically were unremarkable.

Female Rat No. K15MF      Medium Dose Group (No. 28) Path. No. 95543

Gross: Non-survivor; found dead after 768 days on study.

Adrenal - Slightly enlarged, unilaterally.

Lung - Mottled appearance.

Mammary gland - Mass 1: Located subcutaneously in the left inguinal area measuring 10 X 9 X 5 cm; mass 2: located subcutaneously in the right axillary region measuring 4.5 X 3 X 1.5 cm.

Ovary - Cyst, unilaterally.

All other organs examined grossly exhibited moderate autolysis.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Heart - Focal myocarditis.

Liver - Extramedullary hematopoiesis.

Spleen - Extramedullary hematopoiesis.

Pituitary - Chromophobe hyperplasia.

Adrenal - Severe angiectasis, unilaterally.

Mammary gland - Mass 1 and 2: Cystic fibroadenoma.

Ovary - Cystic ovary, unilaterally.

Uterus - Severe endometritis with cystic hyperplasia.

Urinary bladder - Severe autolysis; the mucosa shows papillary projections.

Pancreas, vagina and spinal cord were not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. K16MF

Medium Dose Group (No. 29) Path. No. 95884

Gross: Non-survivor; found dead after 619 days on study.

Mammary gland - Subcutaneous mass in the right inguinal area measuring 3 X 2 X 2 cm.

Uterus - Nodule on one horn.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal mineral deposits in mucosa.

Large intestine - Parasitic nematode in the lumen.

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mineral deposits in cortico-medullary junction.

Liver - Mild nonsuppurative hepatitis.

Spleen - Pigmentation.

Adrenal - Moderate angiectasis, bilaterally.

Mammary gland - Cystic fibroadenoma.

Ovary - Follicular cyst, bilaterally.

Uterus - Subserosal fibroma; mild acute endometritis and endometrial hyperplasia.

Urinary bladder was not examined.

All other organs examined microscopically exhibited mild to severe autolysis, and were otherwise unremarkable.

Female Rat No. K30MF

Medium Dose Group (No. 30) Path. No. 95709

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, unilaterally.

Pituitary - Hyperemia.

Adrenal - Markedly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mild chronic nephritis.

Pancreas - Moderate chronic arteritis.

Pituitary - Severe congestion.

Adrenal - Hemorrhage and moderate angiectasis, unilaterally.

Ovary - Follicular cyst, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. M8MF      Medium Dose Group (No. 31) Path. No. 95508

Gross: Non-survivor; found dead after 757 days on study.

Lung - Nodular appearance on all lobes.

Ovary - Cyst, unilaterally.

Thyroid - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild hypertrophy of left ventricle.

Liver - Moderate congestion.

Spleen - Pigmentation.

Pituitary - Chromophobe cell hyperplasia.

Thyroid - Undifferentiated carcinoma, primary.

Adrenal - Angiectasis.

Ovary - Follicular cyst, unilaterally.

Uterus - Adenomatous polyp in the lumen; mild endometritis.

Salivary gland - Undifferentiated carcinoma, metastatic.

Mammary gland and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M19MF

Medium Dose Group (No. 32) Path. No. 95710

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Lung - Consolidation of one left lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia in one section.

Kidney - Calcifications in pelvis, unilaterally.

Liver - Mild congestion.

Pituitary - Focal calcification.

Uterus - Mild chronic endometritis.

All other organs examined microscopically were unremarkable.

Female Rat No. M21MF

Medium Dose Group(No. 33) Path. No. 94404

Gross: Non-survivor; found dead after 623 days on study.

Liver - Prominent lobular architecture.

Mammary gland - Multinodular subcutaneous mass located in the left inguinal area and measuring 3 cm in diameter.

Small and large intestines - Exhibit marked autolysis.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Liver - Moderate nonsuppurative hepatitis.

Thyroid - Adenoma.

Adrenal - Vacuolization of zona fasciculata.

Mammary gland - Mixed carcinosarcoma; tissue mass contains sarcomatous, adenomatous, and squamous elements with focal calcifications.

Small and large intestines, pituitary, vagina, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M26MF      Medium Dose Group (No. 34) Path. No. 94267

Gross: Non-survivor; found dead after 598 days on study.

Small and large intestines exhibited marked autolysis, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Focal emphysema.

Kidney - Severe acute tubular necrosis.

Liver - Mild congestion.

Spleen - Pigmentation.

Adrenal - Severe hemorrhage of medulla; severe congestion of cortex, bilaterally.

Small and large intestines, pituitary, thyroid, mammary gland, ovary, brain, and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. M28MF

Medium Dose Group (No. 35) Path. No. 95711

Gross: Survivor; sacrificed by design after 805 days on study.

Mammary gland - Mass 1: Located subcutaneously in the left inguinal region and measuring 7 X 7 X 4 cm; mass 2: located subcutaneously in the left upper pelvic region measuring 4 X 3 X 3 cm.

Adrenal - Markedly enlarged, bilaterally.

Oviduct - Filled with purulent material.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild hyperemia.

Kidney - Calcifications in cortico-medullary junction.

Liver - Hemorrhagic infarct; focal fibrosis.

Pituitary - Chromophobe cell hyperplasia; diffuse hemorrhage.

Adrenal - Angiectasis, bilaterally.

Mammary gland - Mass 1 and 2: Fibroadenoma.

Uterus - Focal endometrial polyp; focal endometritis.

Oviduct - Abscess.

All other organs examined microscopically were unremarkable.

Female Rat No. M29MF

Medium Dose Group (No. 36) Path. No. 95712

Gross: Survivor; sacrificed by design after 805 days on study.

Eye - Opacification and hyperemia, unilaterally.

Lung - Nodular appearance in right lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Adrenal - Severe angiectasis.

Eye - Cataract with calcification; moderate retinal degeneration;  
posterior synechia.

Pituitary was not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. AlHM

High Dose Group (No. 1) Path. No. 95637

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic interstitial pneumonitis.

Pancreas - Adenoma.

Adrenal - Medullary hyperplasia.

Prostate was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A3HM

High Dose Group (No. 2)

Path. No. 95811

Gross: Non-survivor; found dead after 587 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. A9HM

High Dose Group (No. 3) Path. No. 95638

Gross: Survivor; sacrificed by design after 805 days on study.

Liver - Subcapsular yellowish-white nodule measuring 2 mm in diameter.

Lung - Numerous grayish subcapsular nodules in right middle lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Liver - Focal hyperplasia; focal hydropic degeneration.

Adrenal - Pheochromocytoma.

All other organs examined microscopically were unremarkable.

Male Rat No. A24HM

High Dose Group (No. 4) Path. No. 95094

Gross: Non-survivor; found dead after 707 days on study.

Pituitary - Slightly hemorrhagic.

Lung - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild diffuse emphysema.

Liver - Mild nonsuppurative hepatitis.

Adrenal - Focal cortical hemorrhage, unilaterally; vacuolization of zona fasciculata, bilaterally.

Prostate - Severe chronic prostatitis.

Mammary gland, lymph node, spinal cord, and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A28HM

High Dose Group (No. 5) Path. No. 95812

Gross: Non-survivor; found dead after 642 days on study.

Lung - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia; focal interstitial pneumonitis.

Liver - Mild congestion.

Spleen - Pigmentation.

Thyroid - Focal squamous metaplasia.

Bone marrow - Erythropoiesis.

Mammary gland, seminal vesicle, prostate, urinary bladder, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. A29HM

High Dose Group (No. 6)

Path. No. 95639

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Stomach - Squamous papilloma.

Large intestine - Parasitic nematode in the lumen.

Lung - Adenoma.

Heart - Mild focal myocarditis.

Kidney - Severe chronic nephritis.

Adrenal - Pheochromocytoma.

All other organs examined microscopically were unremarkable.

Male Rat No. C2HM

High Dose Group (No. 7)

Path. No. 95640

Gross: Survivor; sacrificed by design after 805 days on study.

Tissue mass - Semi-firm mass measuring 10 X 7 X 5 cm located subcutaneously in the right thoracic area.

All other organs examined grossly were unremarkable.

Microscopic:

Adrenal - Pheochromocytoma.

Mammary gland - Fibroma.

All other organs examined microscopically were unremarkable.

Male Rat No. C13HM

High Dose Group (No. 8)

Path. No. 92953

Gross: Non-survivor; found dead after 352 days on study.

Kidney - Dilatation of the pelvis, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Dilatation of the pelvis, bilaterally, otherwise unremarkable.

Liver - Mild congestion.

Spleen - Pigmentation.

Pituitary - Moderate congestion.

Prostate - Moderate glandular atrophy.

Mammary gland, lymph node and spinal cord were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. C14HM                      High Dose Group (No. 9)    Path. No. 95239

Gross: Non-survivor; found dead after 718 days on study.

Lung - Numerous subcapsular nodules in all right lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia in one section; moderate chronic bronchitis in second section.

Large intestine, mammary gland, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. C15HM

High Dose Group (No. 10)

Path. No. 95813

Gross: Non-survivor; found dead after 790 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis and were excluded from the study.

Male Rat No. C16HM

High Dose Group (No. 11) Path. No. 96061

Gross: Non-survivor; found dead after 648 days on study.

Lung - Numerous subcapsular grayish nodules on all lobes.

Pituitary - Markedly enlarged and hyperemic.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal ulcer in forestomach.

Lung - Moderate chronic murine pneumonia.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Prostate - Severe prostatitis.

Mammary gland and lymph node were not examined.

All other organs examined microscopically exhibited mild autolysis and were otherwise unremarkable.

Male Rat No. C24HM

High Dose Group (No. 12)

Path. No. 95641

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Heart - Moderate diffuse myocarditis.

Kidney - Mild focal dilatation of tubules with eosinophilic casts.

Liver - Focal hyperplasia; foci of cytoplasmic vacuolization.

Adrenal - Pheochromocytoma.

All other organs examined microscopically were unremarkable.

Male Rat No. E6HM

High Dose Group (No. 13) Path. No. 95814

Gross: Non-survivor; found dead after 640 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate edema; moderate hyperemia.

Kidney - Moderate focal interstitial nephritis.

Pituitary, mammary gland, lymph node and nerve were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E12HM

High Dose Group (No. 14)

Path. No. 95541

Gross: Non-survivor; found dead after 775 days on study.

Lung - Mottled appearance.

Liver - Moderately enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild edema; mild hyperemia; focal nonspecific foreign body granulomas.

Liver - Reticulum cell sarcoma, metastatic.

Testis - Reticulum cell sarcoma, metastatic to the surface of tunica albuginea.

Mammary gland and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E14HM

High Dose Group (No. 15) Path. No. 95642

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Two small nodules on the surface, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Large intestine - Parasitic nematode in the lumen.

Lung - Mild chronic murine pneumonia.

Liver - Focal hyperplasia.

Thyroid - Follicular hyperplasia.

Adrenal - Pheochromocytoma, unilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. E21HM

High Dose Group (No. 16)

Path. No. 95643

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphocytic hyperplasia.

Heart - Focal fibrosis.

Adrenal - Mild vacuolization of zona fasciculata.

All other organs examined microscopically were unremarkable.



Male Rat No. E23HM

High Dose Group (No. 17) Path. No. 95243

Gross: Non-survivor; found dead after 733 days on study.

Testis - Moderate atrophy, bilaterally.

Kidney - Mottled appearance.

Lung - Yellowish-white nodule on the dorsal surface of right lobe.

Omentum - Yellowish-white firm nodule measuring 10 X 10 X 15 mm.

Tissue mass - Firm nodule measuring 15 X 6 X 5 mm subcutaneously in the pectoral area.

Pituitary - Marked hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Liver - Moderate congestion.

Pituitary - Chromophobe adenoma.

Mammary gland - Subcutaneous myxoma (tissue mass).

Testis - Moderate tubular atrophy, bilaterally.

Prostate - Moderate glandular atrophy.

Urinary bladder - Focal submucosal edema.

Omentum - Undifferentiated carcinoma.

Lymph node and spinal cord were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. E28HM

High Dose Group (No. 18)

Path. No. 94431

Gross: Non-survivor; found dead after 630 days on study.

Lung - Numerous yellowish subcapsular nodules on all lobes.

Small and large intestines exhibited marked autolysis, no sections submitted.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Mild congestion.

Spleen - Pigmentation.

Small and large intestines, mammary gland, seminal vesicle, lymph node, nerve, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G6HM

High Dose Group (No. 19)

Path. No. 94068

Gross: Non-survivor; found dead after 571 days on study.

Small and large intestines are moderately autolyzed, no sections submitted.

Urinary bladder - Markedly distended with bloody fluid.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Liver - Severe congestion; mild pericholangitis.

Spleen - Lymphoid depletion.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate congestion.

Urinary bladder - Severe autolysis; lumen filled with blood.

Lymph node - Reticulum cell hyperplasia.

Small and large intestines, pituitary, mammary gland, seminal vesicle, nerve, salivary gland, brain, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G8HM

High Dose Group (No. 20)

Path. No. 94266

Gross: Non-survivor; found dead after 603 days on study.

Left kidney is embedded in soft adipose tissue. There is a large retroperitoneal hematoma measuring 5 X 3 cm. that completely encompasses the adrenal and firmly adheres to one surface of the kidney.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia; mild peribronchial lymphoid hyperplasia.

Kidney - Severe focal hemorrhage with compression of parenchyma, unilaterally.

Adrenal - Focal severe hemorrhage, coagulative blood adherent to the capsule, unilaterally.

Prostate - Mild glandular hypertrophy.

Large intestine, pituitary, mammary gland, brain, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. G13HM

High Dose Group (No. 21) Path. No. 95815

Gross: Non-survivor; found dead after 618 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Male Rat No. G17HM

High Dose Group (No. 22)

Path. No. 95644

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate interstitial pneumonitis.

Liver - Focal cytoplasmic vacuolization.

Thyroid - Focal squamous metaplasia.

All other organs examined microscopically were unremarkable.

Male Rat No. G24HM

High Dose Group (No. 23) Path. No. 95816

Gross: Non-survivor; found dead after 640 days on study.

Omentum - Yellowish firm nodule measuring 5 X 5 mm.

All other organs examined grossly exhibited marked autolysis.

Microscopic:

Stomach - Paragastric abscess.

Lung - Chronic septic inflammation of visceral pleura.

Kidney - Focal septic nephritis.

Liver - Fibrinous exudate with chronic inflammatory cells on the capsule; mild pericholangitis; extramedullary hematopoiesis.

Spleen - Moderate chronic splenitis; peritonitis on the capsule.

Urinary bladder - Chronic inflammatory cells on serosal surface.

Omentum - Lipoma

Thoracic cavity - Moderate pleuritis; moderate pericarditis.

Abdominal cavity - Moderate peritonitis.

Pancreas, mammary gland, lymph node were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Male Rat No. G30HM

High Dose Group (No. 24)

Path. No. 95645

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Mild pericholangitis.

Pancreas - Islet cell adenoma.

Pituitary - Cyst; chromophobe hyperplasia.

Adrenal - Pheochromocytoma.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. J6HM

High Dose Group (No. 25) Path. No. 95646

Gross: Survivor; sacrificed by design after 805 days on study.

Prostate - Moderately enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Focal cytoplasmic degeneration.

Pituitary - Chromophobe hyperplasia.

Prostate - Mild glandular hypertrophy.

All other organs examined microscopically were unremarkable.

Male Rat No. J7HM

High Dose Group (No. 26)

Path. No. 95647

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Pancreas - Focal sclerosing pancreatitis.

Spinal cord was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J12HM

High Dose Group (No. 27) Path. No. 95648

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - All lobes show consolidation.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Focal myocarditis.

Kidney - Mild interstitial nephritis.

Liver - Mild pericholangitis.

Urinary bladder - Focal submucosal edema; small polyp.

Adrenal was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J18HM

High Dose Group (No. 28)

Path. No. 95165

Gross: Non-survivor; found dead after 722 days on study.

Lung - Numerous gray subcapsular nodules on surfaces of all lobes.

All other organs examined grossly showed marked autolysis.

Microscopic:

Lung - Severe chronic murine pneumonia.

Kidney - Mild chronic interstitial nephritis.

Liver - Mild chronic nonsuppurative hepatitis; severe congestion.

Spleen - Mild fibrosis.

Pituitary - Mild congestion.

Adrenal - Severe congestion.

Bone marrow - Focal hemorrhage.

Mammary gland and lymph node were not examined.

All other organs examined microscopically exhibited mild autolysis and were otherwise unremarkable.

Male Rat No. J22HM

High Dose Group (No. 29)

Path. No. 95649

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Pituitary - Chromophobe hyperplasia.

Nerve was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. J30HM

High Dose Group (No. 30) Path. No. 95650

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Moderate consolidation of all right lobes.

Testis - Moderate atrophy.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Heart - Mild hypertrophy of left ventricle.

Kidney - Calcification in the pelvis.

Testis - Moderate tubular atrophy, bilaterally; aspermatogenesis.

Seminal vesicle - Mild tubular atrophy.

Urinary bladder was not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L4HM

High Dose Group (No. 31) Path. No. 95651

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Liver - Focal cytoplasmic degeneration.

Pituitary - Chromophobe hyperplasia.

Adrenal - Focal cortical hyperplasia; focal vacuolization of zona fasciculata.

Eye - Severe dacryoadenitis.

All other organs examined microscopically were unremarkable.

Male Rat No. L5HM

High Dose Group (No. 32)

Path. No. 95167

Gross: Non-survivor; found dead after 720 days on study.

Tissue mass 1 - Multinodular firm mass measuring 12 X 12 X 6 cm is filling the lower abdominal cavity.

Tissue mass 2 - Green-colored resilient mass measuring 2 X 2 X 1 cm found close to the liver.

Omentum - Great number of small nodules distributed on omentum and mesentery.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal mucosal necrosis.

Lung - Moderate peribronchial lymphoid hyperplasia.

Liver - Severe suppurative hepatitis.

Tissue Mass 1 - Subcutaneous fibrosarcoma, primary.

Tissue Mass 2 - Fibrosarcoma, metastatic to mesentery.

Omentum - Fibrosarcoma, metastatic.

Mammary gland, lymph node and nerve were not examined.

All other organs examined microscopically were unremarkable.



Male Rat No. L19HM

High Dose Group (No. 33) Path. No. 95817

Gross: Non-survivor; found dead after 661 days on study.

Heart - Nodule in the right atrium.

Testis - Marked atrophy, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild focal pneumonia; moderate hyperemia.

Heart - Organized mural thrombus in the right auricle.

Kidney - Mild congestion.

Liver - Mild congestion.

Adrenal - Mild angiectasis.

Testis - Severe tubular atrophy, unilaterally.

Thyroid, mammary gland, prostate, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Male Rat No. L22HM

High Dose Group (No. 34)

Path. No. 95652

Gross: Survivor; sacrificed by design after 805 days on study.

Spleen - Slightly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Mild gastritis in glandular portion.

Lung - Mild chronic interstitial pneumonitis.

Spleen - Mild reticulum cell hyperplasia.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia.

All other organs examined microscopically were unremarkable.

Male Rat No. L24HM

High Dose Group (No. 35) Path. No. 95653

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Thyroid - Focal squamous metaplasia.

Adrenal - Focal cortical hyperplasia, unilaterally.

Testis - Severe tubular atrophy, unilaterally.

All other organs examined microscopically were unremarkable.

Male Rat No. L27HM

High Dose Group (No. 36)

Path. No. 95654

Gross: Survivor; sacrificed by design after 805 days on study.

Testis - Right, slightly enlarged; left, mild atrophy.

All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Mild chronic gastritis in forestomach.

Pituitary - Chromophobe.

Thyroid - Focal squamous metaplasia.

Adrenal - Mild angiectasis.

Testis - Interstitial cell tumor, unilaterally; moderate tubular atrophy, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. B3HF

High Dose Group (No. 1) Path. No. 95818 & 91217

Gross: Non-survivor; found dead after 669 days on study.

Tissue mass 1 - Subcutaneous nodule in right axillary area measuring 1.5 x 1 cm was excised surgically and submitted under Path. No. 91217.

Lung - Nodule measuring 5 x 5 mm on the right anterior lobe.

Tissue mass 2 - Subcutaneous mass in the thoracic region measuring 8 x 6.5 x 3 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Focal granuloma; focal emphysema.

Liver - Focal subcapsular necrosis.

Adrenal - Focal cortical hyperplasia.

Mammary gland - Mass 1: adenocarcinoma, well-differentiated; mass 2: adenocarcinoma, poorly differentiated.

Eye - Mild focal squamous hyperplasia of cornea.

Lymph node and bone with bone marrow were not examined.

All other organs examined microscopically exhibited mild to moderate autolysis and were otherwise unremarkable.

Female Rat No. B12HF

High Dose Group (No. 2)

Path. No. 95655

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Slightly enlarged.

Mammary gland - Subcutaneous mass in the right inguinal region measuring 2.5 x 3 x 2 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild interstitial pneumonitis.

Heart - Focal fibrosis.

Liver - Focal hyperplasia; mild pericholangitis.

Spleen - Extramedullary hematopoiesis.

Pituitary - Chromophobe adenoma.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate angiectasis.

Mammary gland - Adenocarcinoma, well-differentiated.

Ovary - Follicular cyst, bilaterally.

Urinary bladder - Focal submucosal edema.

Nerve was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. B13HF

High Dose Group (No. 3)

Path. No. 95656

Gross: Survivor; sacrificed by design after 805 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

All other organs examined microscopically were unremarkable.

Female Rat No. B14HF

High Dose Group (No. 4)

Path. No. 95657

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Nodular appearance of right lobe.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Adrenal - Mild congestion.

Eye was not examined.

All other organs examined microscopically were unremarkable.



Female Rat No. B20HF

High Dose Group (No. 5)

Path. No. 95659

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, unilaterally.

Uterus - Polyp measuring 7 x 6 mm in the left horn.

All other organs examined grossly were unremarkable.

Microscopic:

Kidney - Mineral deposits in corticomedullary junction.

Pancreas - Islet cell adenoma.

Ovary - Follicular cyst, unilaterally.

Uterus - Polyp.

All other organs examined microscopically were unremarkable.

Female Rat No. B29HF

High Dose Group (No. 6) Path. No. 95819

Gross: Non-survivor; found dead after 779 days on study.

Lung - Diffuse hyperemia.

Pituitary - Moderately enlarged.

Mammary gland - Subcutaneous mass in the left inguinal region measuring  
2.5 x 1.5 x 1 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe hyperemia; moderate edema.

Heart - Focal myocarditis.

Kidney - Focal calcifications in the pelvis.

Liver - Focal cytoplasmic vacuolization; moderate congestion.

Pituitary - Chromophobe adenoma.

Adrenal - Angiectasis; severe congestion.

Mammary gland - Papillary cystadenoma

Ovary - Mild atrophy, bilaterally.

Uterus - Moderate subacute endometritis.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D2HF

High Dose Group (No. 7)

Path. No. 95820

Gross: Non-survivor; found dead after 669 days on study.

Ovary - Cyst, unilaterally.

Uterus - Nodular endometrium in the left horn.

Lung - Hyperemia.

Pituitary - Moderately enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Kidney - Calcifications in the pelvis.

Liver - Mild congestion.

Spleen - Pigmentation.

Pituitary - Mild chromophobe cell hyperplasia; large amount of fibrillar eosinophilic material in pars nervosa.

Adrenal - Moderate angiectasis.

Ovary - Paraovarian cyst, unilaterally.

Uterus - Severe acute endometritis.

Urinary bladder - Moderate hypertrophy of muscularis with focal trabeculations of mucosa.

Brain - Astrocytoma in cerebellum.

Mammary gland, lymph node and salivary gland were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D3HF

High Dose Group (No. 8)

Path. No. 95660

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Moderately enlarged.

Lung - Mottled appearance.

Uterus - Nodular endometrium.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mild interstitial nephritis.

Pituitary - Chromophobe cell hyperplasia.

Uterus - Moderate acute endometritis.

Nerve was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D4HF

High Dose Group (No. 9)

Path. No. 94268

Gross: Non-survivor; found dead after 609 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited severe autolysis, and were excluded from the study.

Female Rat No. D15HF

High Dose Group (No. 10) Path. No. 93036

Gross: Non-survivor; found dead after 356 days on study.

Lung - Mottled appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Moderate congestion.

Liver - Mild congestion.

Spleen - Pigmentation.

Adrenal - Moderate congestion, bilaterally.

Ovary - Follicular cyst, bilaterally.

Large intestine, mammary gland, lymph node, spinal cord and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. D16HF

High Dose Group (No. 11) Path. No. 95821

Gross: Non-survivor; found dead after 508 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Female Rat No. D28HF

High Dose Group (No. 12) Path. No. 95661

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Consolidation of right lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

. Kidney - Calcifications in calyces.

Pituitary - Chromophobe adenoma.

All other organs examined microscopically were unremarkable.



Female Rat No. F6HF

High Dose Group (No. 13) Path. No. 95822

Gross: Non-survivor; found dead after 787 days on study.

All organs examined grossly exhibited marked autolysis.

Microscopic:

All organs examined microscopically exhibited moderate to severe autolysis, and were excluded from the study.

Female Rat No. F11HF

High Dose Group (No. 14) Path. No. 95662

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Numerous yellowish-white spots on the surface, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Multifocal hyperplasia.

Spleen - Pigmentation.

Adrenal - Focal cortical hyperplasia.

All other organs examined microscopically were unremarkable.

Female Rat No. F14HF

High Dose Group (No. 15) Path. No. 95095

Gross: Non-survivor; found dead after 709 days on study.

Pituitary - Markedly enlarged.

Adrenal - Slightly enlarged, unilaterally.

Lung - Nodular appearance, right lobes.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Mineral deposits in corticomedullary junction.

Liver - Moderate congestion.

Spleen - Moderate congestion; pigmentation.

Pituitary - Chromophobe adenoma.

Adrenal - Moderate congestion.

Ovary - Follicular cysts, bilaterally.

Thyroid, mammary gland, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F23HF      High Dose Group (No. 16)    Path. No. 95663

Gross:    Survivor; sacrificed by design after 805 days on study.

    Lung - Consolidation of left lobes.

    Adrenal - Hyperemia, unilaterally.

    All other organs examined grossly were unremarkable.

Microscopic:

    Lung - Moderate chronic murine pneumonia.

    Adrenal - Moderate angiectasis, unilaterally.

    All other organs examined microscopically were unremarkable.

Female Rat No. F25HF

High Dose Group (No. 17) Path. No. 95823

Gross: Non-survivor; found dead after 576 days on study.

All organs examined grossly were unremarkable.

Microscopic:

Kidney - Calcifications in the pelvis.

Mammary gland, lymph node, bone with bone marrow and eye were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. F29HF

High Dose Group (No. 18) Path. No. 95542

Gross: Non-survivor; found dead after 774 days on study.

Adrenal - Markedly enlarged, unilaterally.

Kidney - Mottled appearance, unilaterally.

Uterus - Nodular endometrium in the left horn.

Mammary gland - Mass 1: located subcutaneously in the right axillary region, measuring 8.5 x 7 x 4 cm; mass 2: located subcutaneously in the left inguinal region, measuring 12 x 12 x 10 mm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Moderate acute interstitial nephritis.

Spleen - Pigmentation.

Adrenal - Severe angiectasis, unilaterally; focal vacuolization and pigmentation of zona fasciculata, unilaterally.

Mammary gland - Mass 1: fibroadenoma; mass 2: adenocarcinoma, well-differentiated.

Uterus - Moderate endometritis; papillary squamous metaplasia with hyperkeratosis.

Urinary bladder - Papillary hyperplasia of the mucosa.

Vagina and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H5HF

High Dose Group (No. 19) Path. No. 95664

Gross: Survivor; sacrificed by design after 805 days on study.

Ovary - Cyst, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Ovary - Follicular cyst, unilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. H7HF                      High Dose Group (No. 20)    Path. No. 95623

**Gross:**    Survivor; sacrificed by design after 805 days on study.

    All organs examined grossly were unremarkable.

**Microscopic:**

    Lung - Mild chronic murine pneumonia.

    Kidney - Calcifications in the pelvis.

    Spleen - Pigmentation.

    Adrenal - Focal cortical hyperplasia.

    All other organs examined microscopically were unremarkable.



Female Rat No. H9HF

High Dose Group (No. 21) Path. No. 95665

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Consolidation of left lobes.

Adrenal - Markedly enlarged, unilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Kidney - Calcifications in the pelvis, unilaterally.

Pituitary - Adenoma.

Adrenal - Moderate angiectasis, unilaterally.

Brain - Oligodendroglioma in cerebellum.

Eye was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H15HF

High Dose Group (No. 22)

Path. No. 95666

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Consolidation of right lobes.

Ovary - Cyst measuring 1.5 X 1.5 X 1 cm, unilaterally.

Uterus - Polyp measuring 8 X 5 X 5 mm in the right horn.

Mammary gland - Subcutaneous mass in the right cervical region measuring  
2 X 1.5 X 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Pancreas - Mild dilatation of ducts, mild focal pancreatitis.

Pituitary - Chromophobe adenoma.

Thyroid - Follicular adenoma.

Adrenal - Moderate congestion, cortical hyperplasia.

Mammary gland - Fibroadenoma.

Ovary - Large ovarian cyst, unilaterally.

Uterus - Endometrial polyp; severe endometritis and myometritis.

Lymph node - Lymphoma, benign.

Salivary gland was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. H18HF

High Dose Group (No. 23) Path. No. 95667

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged and hyperemic.

Ovary - Cysts, bilaterally.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild chronic murine pneumonia.

Liver - Mild pericholangitis.

Spleen - Mild congestion.

Pituitary - Focal hemorrhage of anterior lobe.

Adrenal - Moderate angiectasis.

Ovary - Follicular cyst, bilaterally.

All other organs examined microscopically were unremarkable.

Female Rat No. H23HF

High Dose Group (No. 24) Path. No. 95668

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Adrenal - Markedly enlarged, bilaterally.

Uterus - Small polyp in the cervix.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Pituitary - Chromophobe adenoma.

Adrenal - Severe angiectasis, bilaterally.

Uterus - Pedunculated cervical polyp; mild chronic cervicitis.

All other organs examined microscopically were unremarkable.

Female Rat No. K5HF

High Dose Group (No. 25) Path. No. 95669

Gross: Survivor; sacrificed by design after 805 days on study.

Lung - Nodular appearance in all lobes.

Mammary gland - Subcutaneous mass in the left axillary region measuring  
6 x 6 x 4 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Severe chronic murine pneumonia.

Liver - Mild focal pericholangitis.

Adrenal - Mild congestion.

Mammary gland - Fibroadenoma.

Uterus - Small submucosal cyst; proliferative endometrium.

All other organs examined microscopically were unremarkable.

Female Rat No. K11HF

High Dose Group (No. 26) Path. No. 95670

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Markedly enlarged, unilaterally.

Ovary - Markedly enlarged, unilaterally; cyst, unilaterally.

Mammary gland - Mass 1: located subcutaneously in the right axillary region, measuring 7 x 6 x 3.5 cm; mass 2: located subcutaneously in the left axillary region, measuring 2 x 1 x 1 cm; mass 3: subcutaneous nodule in left cervical area measuring 15 x 10 x 5 mm. All other organs examined grossly were unremarkable.

Microscopic:

Stomach - Focal dilatation of fundal glands.

Lung - Mild peribronchial lymphoid hyperplasia.

Pituitary - Chromophobe adenoma; severe hemorrhage.

Adrenal - Severe angiectasis, unilaterally; mild congestion, unilaterally.

Mammary gland - Mass 1: fibroadenoma; mass 2: adenocarcinoma, well-differentiated; mass 3: cystadenoma

Ovary - Severe chronic oophoritis with necrosis, bilaterally; ovarian cyst, unilaterally.

Uterus - Mild chronic endometritis and cervicitis.

Lymph node was not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K17HF

High Dose Group (No. 27) Path. No. 94798

Gross: Non-survivor; found dead after 678 days on study.

Pituitary - Markedly enlarged.

Adrenal - Moderately enlarged, unilaterally.

Mammary gland - Subcutaneous mass in the right axillary area, measuring  
3 x 3 x 1.5 cm.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Mineral deposits in collecting tubules and calyces, surrounded  
by epithelial hyperplasia.

Liver - Mild pericholangitis; focal severe congestion.

Pituitary - Chromophobe adenocarcinoma, well-differentiated, primary.

Adrenal - Necrosis with focal hemorrhages of the medulla, unilaterally.

Mammary gland - Adenocarcinoma, well-differentiated, primary.

Uterus - Moderate acute endometritis.

Small and large intestines, thyroid, lymph node, spinal cord and eye  
were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K18HF

High Dose Group (No. 28) Path. No. 95824

Gross: Non-survivor; found dead after 652 days on study.

Mammary gland - Mass 1: located subcutaneously in the left axillary region, measuring 5 x 4.5 x 3 cm; mass 2: located subcutaneously in the right axillary region, measuring 2 x 2 x 1 cm.

Pituitary - Markedly enlarged.

All other organs examined grossly exhibited marked autolysis.

Microscopic:

Lung - Moderate hyperemia.

Kidney - Calcifications in pelvis and calyces.

Pituitary - Severe angiectasis.

Mammary gland - Mass 1 and 2: adenoma.

Uterus - Moderate endometritis.

Thyroid, vagina and lymph node were not examined.

All other organs examined microscopically exhibited mild to severe autolysis and were otherwise unremarkable.



Female Rat No. K21HF

High Dose Group (No. 29) Path. No. 95825

Gross: Non-survivor; sacrificed in extremis after 779 days on study.

Pituitary - Markedly enlarged.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Mild nonsuppurative hepatitis.

Pituitary - Chromophobe adenocarcinoma, well-differentiated, primary.

Adrenal - Focal cortical hyperplasia.

Ovary - Cyst, unilaterally.

Uterus - Moderate endometritis.

Brain - Focal hemorrhage.

Mammary gland and lymph node were not examined.

All other organs examined microscopically were unremarkable.

Female Rat No. K24HF

High Dose Group (No. 30) Path. No. 95671

Gross: Survivor; sacrificed by design after 805 days on study.

Adrenal - Moderately enlarged, unilaterally.

Uterus - Polyp measuring 6 x 2 mm in the right horn.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Mild peribronchial lymphoid hyperplasia.

Kidney - Mild diffuse atrophy of glomeruli, bilaterally.

Thyroid - Focal squamous metaplasia.

Adrenal - Moderate angiectasis, unilaterally.

Uterus - Endometrial polyp; mild cystic hyperplasia of endometrium.

Urinary bladder - Mild submucosal edema.

All other organs examined microscopically were unremarkable.

Female Rat No. M2HF

High Dose Group (No. 31) Path. No. 95672

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Hyperemia.

All other organs examined grossly were unremarkable.

Microscopic:

Liver - Mild pericholangitis; mild proliferation of bile ducts.

Pituitary - Chromophobe adenoma.

Adrenal - Mild angiectasis.

All other organs examined microscopically were unremarkable.

Female Rat No. M3HF

High Dose Group (No. 32) Path. No. 95343

Gross: Non-survivor; found dead after 741 days on study.

Mammary gland - Subcutaneous mass in the right inguinal region measuring 7.5 x 6 x 2.5 cm.

Uterus - Polyp measuring 2.5 x 1.5 x 1 cm in the right horn.

Lung - Nodular appearance.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Adrenal - Focal hemorrhage, bilaterally.

Mammary gland - Fibroadenoma.

Uterus - Fibrovascular polyp exhibiting marked necrosis.

Large intestine, lymph node and eye were not examined.

All other organs examined microscopically were unremarkable.

**Female Rat No. M18HF**

**High Dose Group (No. 35) Path. No. 95166**

**Gross: Non-survivor; found dead after 715 days on study.**

**Spleen - Markedly enlarged.**

**Stomach - Aglandular portion is pitted with small ulcerations.**

**Tissue mass located in the lower abdominal cavity, measuring 7 x 6 x 4.5 cm; both ovaries, uterus, vagina, lower portion of colon, urinary bladder are contained within the mass.**

**Kidney - Dilatation of the pelvis, unilaterally.**

**Adrenal - Moderately enlarged, bilaterally.**

**All other organs examined grossly were unremarkable.**

**Microscopic:**

**Stomach - Gastric ulcer; mild chronic gastritis; moderate squamous hyperplasia.**

**Kidney - Hydronephrosis, unilaterally.**

**Liver - Mild nonsuppurative hepatitis.**

**Spleen - Reticulum cell sarcoma, primary.**

**Adrenal - Dilated sinuses filled with blood, bilaterally.**

**Ovary - Fibrosarcoma, metastatic.**

**Uterus - Fibrosarcoma, poorly differentiated, primary.**

**Vagina - Fibrosarcoma, metastatic.**

**Urinary bladder - Fibrosarcoma, metastatic to the serosal surface.**

**Mammary gland, nerve, spinal cord and eye were not examined.**

**All other organs examined microscopically were unremarkable.**

Female Rat No. M30HF

High Dose Group (No. 36) Path. No. 95675

Gross: Survivor; sacrificed by design after 805 days on study.

Pituitary - Markedly enlarged.

Lung - Nodular appearance in right lobes.

Uterus - Polyp measuring 3 x 1 x 1 mm in the right horn.

All other organs examined grossly were unremarkable.

Microscopic:

Lung - Moderate chronic murine pneumonia.

Liver - Moderate pericholangitis; multifocal cytoplasmic degeneration.

Pituitary - Chromophobe hyperplasia.

Uterus - Adenomatous polyp.

All other organs examined microscopically were unremarkable.