

Preclinical Research and Development Organization

Study Report

Study Number: PRADO/TOX-261

Study Title

**28 Days Repeated Dose Toxicity Study of CORONASH™ by Oral Route in Sprague Dawley
Rat with 14 Days Recovery Period**

August, 2020

Study Director

Subhashis Paul, M.Sc.

TEST FACILITY

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CONTENTS

TITLE PAGE	1
CONTENTS	2
GLP COMPLIANCE STATEMENT	5
STATEMENT OF QUALITY ASSUARANCE.....	6
PERSONNEL INVOLVED IN THE STUDY	7
REPORT APPROVAL	8
LIST OF ABBREVIATIONS	9
SUMMARY	11
1.0 INTRODUCTION	13
1.1 Objectives	13
1.2 Study Guidelines	13
1.3 Good Laboratory Practice	13
1.4 Quality Assurance Unit.....	13
1.5 Study Period	14
2.0 MATERIALS AND METHODS.....	15
2.1 Test Item Details	15
2.2 Vehicle Details	15
2.3 Test System Details	16
2.4 Justification for Selection of Test System	16
3.0 EXPERIMENTAL PROCEDURES	17
3.1 Animal Welfare	17
3.2 Husbandry	17
3.3 Acclimatization	18
3.4 Randomization	18
3.5 Stability and Formulation Analysis	18
3.6 Preparation of the Dose Formulation.....	18
3.7 Experimental Design	19
3.8 Justification for Selection of Dose and Route of Administration	19
3.9 Dose Administration.....	19
4.0 OBSERVATIONS	20
4.1 Mortality and Clinical Signs Observations	20

4.2	Detailed Clinical Observations.....	20
4.3	Body Weights.....	20
4.4	Feed Consumption.....	20
4.5	Ophthalmoscopic Examination	20
4.6	Clinical Pathology Observations.....	21
4.6.1	Hematology.....	21
4.6.2	Clinical Chemistry.....	21
4.6.3	Urinalysis	22
4.7	Necropsy and Gross Pathology	22
4.8	Organ Collection and Organ Weight.....	22
4.9	Histopathology	23
4.10	Data Analysis	23
4.11	Archives	23
5.0	RESULTS.....	24
5.1	Mortality and Clinical Signs Observations.....	24
5.2	Detailed Clinical Observations.....	24
5.3	Body Weights.....	24
5.4	Feed Consumption.....	24
5.5	Ophthalmoscopic Examination	25
5.6	Hematology	25
5.7	Clinical Chemistry.....	25
5.8	Urinalysis	26
5.9	Gross Pathology	26
5.10	Organ Weights.....	26
5.11	Histopathology	26
6.0	CONCLUSION.....	27
7.0	STUDY PLAN AMENDMENT AND DEVIATIONS	27
8.0	REFERENCES	27
	SUMMARY TABLE 1: Clinical Signs and Mortality	28
	SUMMARY TABLE 2: Detailed Clinical Observations	29
	SUMMARY TABLE 3: Body Weight (gm).....	31
	SUMMARY TABLE 4: Body Weight Gain (gm)	33
	SUMMARY TABLE 5: Feed Consumption.....	35

SUMMARY TABLE 6: Ophthalmoscopic Examination	37
SUMMARY TABLE 7: Hematology	38
SUMMARY TABLE 8: Differential Leukocyte Count (%).....	40
SUMMARY TABLE 9: Clinical Chemistry	42
SUMMARY TABLE 10: Qualitative Urinalysis	46
SUMMARY TABLE 11: Microscopic Urinalysis	48
SUMMARY TABLE 12: Gross Pathology Observations	50
SUMMARY TABLE 13: Absolute Organ Weight (gm)	51
SUMMARY TABLE 14: Organ Weight Relative to Terminal Body Weight (gm)	53
SUMMARY TABLE 15: Histopathology Observations	55
APPENDIX – I: Individual Animal Clinical Signs.....	56
APPENDIX – II: Individual Animal Detailed Clinical Observations.....	64
APPENDIX – III: Individual Animal Body Weight (gm)	68
APPENDIX – IV: Individual Animal Body Weight Gain (gm)	72
APPENDIX – V: Individual Animal Feed Consumption (gm/cage)	76
APPENDIX – VI: Individual Animal Ophthalmoscopic Examination	78
APPENDIX – VII: Individual Animal Hematology.....	80
APPENDIX – VIII: Individual Animal Differential Leukocyte Count (%)	84
APPENDIX – IX: Individual Animal Clinical Chemistry.....	88
APPENDIX – X: Individual Animal Qualitative Urinalysis	94
APPENDIX – XI: Individual Animal Microscopic Urinalysis.....	98
APPENDIX – XII: Individual Animal Gross Pathology Findings.....	102
APPENDIX – XIII: Individual Animal Absolute Organ Weight (gm)	106
APPENDIX – XIV: Individual Animal Organ Weight Relative to Terminal Body Weight (gm) ...	110
APPENDIX – XV: Individual Animal Histopathology.....	114
ANNEXURE I: CERTIFICATE OF ANALYSIS OF TEST ITEM.....	117
ANNEXURE II: GLP CERTIFICATE.....	118

GLP COMPLIANCE STATEMENT

Study Title: 28 Days Repeated Dose Toxicity Study of CORONASH™ by Oral Route in Sprague Dawley Rat with 14 Days Recovery Period.

This study was conducted in the Test Facility of PRADO-Preclinical Research and Development Organization, Private Limited. I accept responsibility for the conduct of the study and validity of data and hereby declare that the study was performed under my direction and the report is complete, true and accurate representation of study raw data. There were no circumstances that might have affected the quality or integrity of the study.

This study was conducted in compliance with OECD principles of GLP (as revised in 1997, issued January 1998, ENV/MC/CHEM (98) 17) and in accordance with the written study plan, authorized by the Test Facility Management and following Standard Operating Procedures (SOPs) at PRADO.

Study Director:

(Subhashis Paul)
(Name)

()
(Sign)

(Aug 31, 2020)
(Date)

STATEMENT OF QUALITY ASSUARANCE

Study Title: 28 Days Repeated Dose Toxicity Study of CORONASH™ by Oral Route in Sprague Dawley Rat with 14 Days Recovery Period.

The study was inspected at different phases by the Quality Assurance Unit of PRADO-Preclinical Research and Development Organization, Private limited. The final report was inspected with respect to the study plan, standard operating procedures to be followed and the raw data generated in this study. I certify that the final report is a true reflection of the raw data.

The date on which the observations were reported to the Test Facility Management and the Study Director are given below:

Serial No.	Phase	Date of Inspection / Audit	Date of Reporting to the	
			Study Director	Test Facility Management
1	Draft Study Plan	Jun 01, 2020	Jun 01, 2020	Jun 01, 2020
2	Body weight and Randomization	Jun 10, 2020	Jun 10, 2020	Jun 10, 2020
3	Formulation, Dose administration	Jun 25, 2020	Jun 25, 2020	Jun 25, 2020
4	Hematology, Necropsy, Organ collection	Jul 09, 2020	Jul 09, 2020	Jul 09, 2020
5	Draft Study Report and Raw Data	Aug 18, 2020	Aug 19, 2020	Aug 19, 2020

Head, Quality Assurance Unit:

(Dr. Sachin Shinde)
(Name)

()
(Sign)

Aug 31, 2020
(Date)

PERSONNEL INVOLVED IN THE STUDY

Study Director	: Subhashis Paul, M.Sc.
Deputy Study Director	: Anjali Lewate, M.Sc.
Study Personnel	: Surojit Mondal, M.Sc., Ph.D.
	: Neha Nikam, M.Sc.
	: Kiran Patil, M.Sc.
	: Amol Kamble, B.Sc.
	: Pooja Mali, B.Sc.
	: Amit Wable, B. Sc.
	: Shweta Waghmare, B.Sc. (pursuing)
Study Veterinarian	: Krishna Bohrey, M.V.Sc.
Study Pathologist	: Sneha Thorat, M.V.Sc., Ph.D.

REPORT APPROVAL

This Study Report for Study number PRADO/TOX-261 '28 Days Repeated Dose Toxicity Study of CORONASH™ by Oral Route in Sprague Dawley Rat with 14 Days Recovery Period' has been mutually agreed and approved between:

For Test Facility

Study Director:

(Subhashis Paul)
(Name)

()
(Sign)

(Aug 31, 2020)
(Date)

Test Facility Management:

(Dr. Pralhad Wangikar)
(Name)

()
(Sign)

(Aug 31, 2020)
(Date)

LIST OF ABBREVIATIONS

°C	Degree Celsius
%	Percentage
µL	Micro liter
ALB	Albumin
ALP	Alkaline Phosphatase
ARF	Animal Research Facility
BILT	Total Bilirubin
BUL	Blood urea
CBUN	Calculated Blood Urea Nitrogen
CHOLE	Cholesterol
CMC	Carboxyl Methyl Cellulose
CPCSEA	Committee for the Purpose of Control and Supervision of Experiments on Animals
CREAT	Creatinine
E	Edema
FD	Found Dead
f/L	Femtoliter
g/dL	Gram Per Deciliter
GLU	Glucose
gm	Gram
GOT	Glutamate oxaloacetate transaminase
GPT	Glutamate pyruvate transaminase
HCT	Haematocrit
HGB	Hemoglobin Concentration
Hrs	Hours
IAEC	Institutional Animal Ethics Committee
Kg	Kilogram
Ltd	Limited
mg/dl	Milligram Per Deciliter
MCV	Mean Corpuscular Volume
MCH	Mean Hemoglobin Concentration
MCHC	Mean Corpuscular Hemoglobin Concentration
mg	Milligram

ml	Milliliter
N	Number of Animals
NAD	No Abnormalities Detected
NOAEL	No Observed Adverse Effect Levels
OECD	The Organization for Economic Co-operation and Development
PAR	Protein Albumin Ratio
Pg	Picogram
PLT	Platelet
PRO	Protein
Pvt	Private
RBC	Red blood cells
SD	Standard Deviation
SOP	Standard Operating Procedures
TRGL	Triglycerides
U/L	Unit Per Liter
UV	Ultra Violet
WBC	White blood cells
w/v	Weight by volume

SUMMARY

Study No.	PRADO/TOX-261
Test Item	CORONASH™
Study Title	28 Days Repeated Dose Toxicity Study of CORONASH™ by Oral Route in Sprague Dawley Rat with 14 Days Recovery Period
Route	Oral
Dose	Vehicle (0 mg/kg/day) and CORONASH™ (500, 750, 1000 mg/kg)
No. of Groups	6 (6 Animals/Sex/Group)

The objective of the study is to determine the possible health hazards of CORONASH™ after repeated daily oral administration to Sprague Dawley rats for a period of 28 consecutive days. The recovery group animals observed for a treatment free period of 14 more days to evaluate reversibility, persistence or delayed occurrence of toxic effects. The study was performed to provide information on major toxic effects, target organs and No-Observed-Adverse-Effect-Level (NOAEL) of CORONASH™ in rats for establishing safety criteria in humans. CORONASH™ was supplied by Vedicinals India Private Limited (Formerly known as IGES efficiency solutions India Private Limited), Pune, India. The study was performed in accordance with New Drugs and Clinical Trials Rules (Gazette of India, 2019).

The study design comprised 4 main groups and 2 recovery groups, each containing 6 rats per sex. Rats of low (G2), mid (G3), high (G4) and high dose recovery (G4R) groups received daily oral dose of CORONASH™ 500, 750, 1000 and 1000 mg/kg respectively, for 28 consecutive days. Animals from control group (G1 and G1R) received 0.5% Carboxyl methyl cellulose in deionized water as vehicle. The dose volume was 10 ml/kg/day..

Parameters were evaluated include mortality, clinical signs, detailed clinical examination, body weight, feed consumption, Ophthalmoscopic examination, hematology, clinical chemistry, urine analysis, organ weights, gross and histopathological examination.

All the animals survived till the scheduled necropsy. All animals well tolerated the oral dose of CORONASH™ up to 1000 mg/kg for 28 consecutive days without any apparent signs of toxicity. Weekly detailed clinical examinations did not reveal any clinical abnormalities in any of the animals. No treatment related adverse effects were noticed during ophthalmic examination at 1000 mg/kg in both sexes. No test item related adverse effects were observed in body weights during experiment period. Feed consumption in all treatment groups was comparable with respective control groups.

Clinical pathological investigations (hematology, clinical chemistry and urinalysis) revealed no treatment related adverse effects at all dose groups in both sexes at the end of treatment and recovery periods. Absolute and relative organ weight estimation did not exhibit any treatment related effects when compared with vehicle control groups in both sexes up to 1000 mg/kg.

There were no test item related gross pathological changes observed up to 1000 mg/kg in both sexes at the end of treatment and recovery period. There was no test item-related histopathological changes observed at high dose of 1000 mg/kg dose in both sexes at the end of treatment period.

All animals well tolerated the oral doses of CORONASH™ up to and including 1000 mg/kg for 28 consecutive days without any toxic effects. The NOAEL for CORONASH™ is considered to be 1000 mg/kg in both sexes after 28 days repeated oral administration in Sprague Dawley rats under above study conditions.

1.0 INTRODUCTION

1.1 Objectives

The objective of the study was to determine the possible health hazards of CORONASH™ after repeated daily oral administration to Sprague Dawley rats for the period of 28 consecutive days. The recovery group animals were observed for a treatment free period of 14 more days to evaluate reversibility, persistence or delayed occurrence of toxic effects. The study is providing information on major toxic effects, target organs and No-Observed-Adverse-Effect-Level (NOAEL) of CORONASH™ in rats for establishing safety criteria for human exposure.

1.2 Study Guidelines

The design and scope of the study is based on consideration of the study objectives. The experimental procedures were performed on the basis of standards set forth in;

New Drugs and Clinical Trials Rules, Ministry of Health and Family Welfare, Government of India (Department of Health and Family Welfare), Gazette of India, (extraordinary) Part-II, Section 3(i) vide G.S.R. 227(E), dated 19th March, 2019.

OECD guideline for testing of chemicals, No. 407, entitled 'Repeated dose 28-day oral toxicity study in rodents'. The Organization for Economic co-operation and Development (OECD) Guidelines for the Testing of chemicals, adopted by the council on 03 October 2008.

1.3 Good Laboratory Practice

This toxicity study was performed following the OECD Principles on Good Laboratory Practice (revised 1997, issued January 1998) ENV/MC/CHEM (98) 17 Environment Directorate, Organization for Economic Co-operation and Development, Paris, 1998.

Certification & Accreditation: The test facility is certified (GLP/C-127/2018) by the National GLP Compliance Monitoring Authority (NGCMA), Department of Science & Technology, Govt. of India, for compliance to OECD-GLP and by CPCSEA (1723/PO/ReBiBt/S/13/CPCSEA) for conducting experiments on small laboratory animals

1.4 Quality Assurance Unit

The Quality Assurance Unit at PRADO has reviewed the draft study plan; inspected various phases of the study and inspected the raw data and draft report.

1.5 Study Period

Study Initiation Date	:	Jun 06, 2020
Experiment Start Date	:	Jun 06, 2020
Experiment Completion Date	:	Aug 06, 2020
Study Completion Date	:	Aug 31, 2020

2.0 MATERIALS AND METHODS

Details of the methods mentioned in the subsequent section of the Study Report are as per the appropriate Standard Operating Procedures (SOPs) at PRADO.

2.1 Test Item Details

The details of test item are given below as per TIIS and CoA (Annexure - I) provided by sponsor. The integrity of supplied data relating to the test item is the responsibility of sponsor.

Name of Test Item	: CORONASH™
Batch Number	: TRL/001
Assay	: Each 5279 mg contains - Compound 1 (85%) : 353 mg - Plant extract 1 Compound 2 + 3 (95%) : 736 mg - Plant extract 2 Compound 4 (20%) : 1500 mg - Plant extract 3 Compound 5 (90%) : 667 mg - Plant extract 4 Compound 6 (95%) : 1053 mg - Plant extract 5 Compound 7 (50%) : 889 mg - Plant extract 6 Compound 8 (95%) : 21 mg - Plant extract 7 Compound 9 (20%) : 60 mg - Plant extract 8
Manufacturing Date	: 24/05/2020
Retest Date	: 23/05/2021
Description	: Brownish Yellow powder
Storage Conditions	: Room temperature (20° - 30° C)

Note: Refer CoA for batch number, Assay, Manufacturing Date and Description. Expiry date and Storage condition is as per TIIS.

Note: The test item has three synonyms (CORONASH™ / VEDICINALS™ - 9 / MOLECUSAN™ - 9) but CORONASH™ is considered as primary name of the test item throughout the study.

2.2 Vehicle Details

Carboxy Methyl Cellulose in deionized water (0.5%) was used as vehicle. Preparation and utilization of Carboxy Methyl Cellulose in deionized water (0.5%) was available in raw data.

Name	: Carboxy Methyl Cellulose
Batch Number	: 0000374509
Manufacturing Date	: Jan 2019
Expiry / Retest Date	: Jan 2023
Storage Conditions	: Room Temperature
Appearance	: White colour powder

2.3 Test System Details

Species (Strain)	: Rat (Sprague Dawley)
Sex	: Male and Female; Females were nulliparous and non pregnant
Age (at initiation of acclimation)	: 6 - 7 weeks
Body weight (at initiation of dosing)	: Male - 134.5 to 172.0 g. Female - 137.5 to 163.0g. At the commencement of treatment, the weight variation of animals were not exceed $\pm 20\%$ of the mean weight of each sex.
Source	: Global Bioresearch Solution Pvt Ltd, Pune. (CPCSEA Registration No.: 1899/PO/Bt/S/16/CPCSEA)

2.4 Justification for Selection of Test System

Rat is one of the test system used for toxicity testing and accepted globally by many regulatory authorities.

3.0 EXPERIMENTAL PROCEDURES

3.1 Animal Welfare

All procedures of the study were in accordance with the standard operating procedures of the PRADO, Pune and the guidelines set by the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) as published in The Gazette of India, December 15, 1998. Prior approval of the Institutional Animal Ethics Committee (IAEC) was in place (IAEC-20-023).

3.2 Husbandry

Location	: ARF Room No. 02
Temperature	: 20.2 to 24.4 °C
Humidity	: 40 to 63 %
Lighting	: Photoperiod was 12 hrs light and 12 hrs dark. Light hours being controlled by an automated system (Digital Electric Timer, Make: Fortier Digital).
Air Changes	: 10 to 15 air changes per hour was maintained throughout the in-life phase of this study.
Cages	: 3 animals per sex per cage were housed together in the polycarbonate cages.
Cage Rotation Frequency	: Cage Rotation was done weekly.
Cage Dimensions	: Approximately 41.0 cm x 28.2 cm x 15.2 cm
Feed	: Standard pelleted rodent diet was provided <i>ad libitum</i> (Supplier: Nutrivet Life Sciences).
Water	: Reverse Osmosis water treated with ultraviolet light was provided <i>ad libitum</i> in autoclaved polypropylene bottles.
Analysis of feed, water and bedding	: Contaminant and nutrient content analysis of feed and pesticide analysis of water and bedding samples being done routinely. Details are included in raw data file.
Animal Identification	: Animals were temporarily identified during acclimatization period by tail marking (towards tip of the tail, 01 – 24 for male and 25 – 48 for female) using a marker. After randomization, the animals were assigned a permanent animal number (as per experimental design, Section 3.7) and were marked towards the

base of the tail using marker pen throughout the study period. Group of animals per cage was identified by different color cage card having information such as study no., cage no, group, dose, species, strain, animal ID, sex, experiment start date, experiment end date and signed by Study Director / Study personnel

3.3 Acclimatization

80 rats (40 males and 40 females) were issued by Animal Research facility for this study and allowed to acclimatize for 5 days before assigning to any treatment group. During this period, animals were observed daily once for clinical signs, twice for mortality and once for detailed clinical examination.

3.4 Randomization

After completion of acclimatization period, a total of 72 healthy animals (36 males and 36 females) were selected and randomized by manual zig-zag method based on body weight. The animals were grouped into 6 groups consisting of 6 animals/sex/group. The mean body weight variation of animals across the groups were minimal and body weight range not exceed $\pm 20\%$ of the mean body weight.

Following randomization, selected animals were identified by animal number on base of the tail (last 2 digit of the animal number). Further, each cage were identified by cage card having details like study no., cage no, group, dose, species, strain, animal ID, sex, experiment start date, experiment end date and signed by Study Director / Study personnel. Extra animals were return to the animal research facility after randomization.

3.5 Stability and Formulation Analysis

Stability and formulation analysis were not performed for this study as per sponsor recommendation.

3.6 Preparation of the Dose Formulation

For each dose, required quantity of the Test Item were weighed on butter paper and transferred to the mortar and pestle. Test Item was triturated and small amount of vehicle was added in sequential manner while trituration. Then this prepared Test Item formulation was transferred to the measuring cylinder. Small amount of vehicle was added to mortar to recover traces of left over Test Item. This procedure of rinsing was repeated for 2-3 times. The final volume was made up to required amount with vehicle. The Test Item formulation

was transferred to a suitable labelled container. The exact quantity of Test Item and vehicle used was recorded in the raw data.

Test item Quantity (mg)*	Amount of API (mg)	Amount of vehicle (mL)	Concentration Prepared (mg/mL)	Final volume (mL)
2121	1500	~ 30	50.0	30
3183	2250	~ 30	75.0	30
8490	6000	~ 60	100.0	60

* Correction factor 1.4 was added for the dose calculation as per sponsor requirement.

3.7 Experimental Design

Group No.	Group	Treatment	Dose (mg/kg/day)	Test Item (mg)*	Animal Numbers	
					Male	Female
Main Group						
G1	Control	Vehicle	0	0	26101 - 26106	26107 - 26112
G2	Low	CORONASH™	500	707	26113 - 26118	26119 - 26124
G3	Mid		750	1061	26125 - 26130	26131 - 26136
G4	High		1000	1415	26137- 26142	26143 - 26148
Recovery Group						
G1R	Control Recovery	Vehicle	0	0	26149 - 26154	26155 - 26160
G4R	High Recovery	CORONASH™	1000	1415	26161 - 26166	26167 - 26172

* Correction factor 1.4 was added for the dose calculation as per sponsor requirement.

3.8 Justification for Selection of Dose and Route of Administration

The study will be conducted at three dose levels of test item i.e. 500 (low), 750 (mid) and 1000 (high) mg/kg body weight per day along with vehicle control. Control group animals will be treated with vehicle alone. Dosage of CORONASH™ selected for this study is based on the Sponsor's requirement. The oral route of administration is selected as per the sponsor's request as it is the intended clinical route of administration.

3.9 Dose Administration

CORONASH™ was administered to each animal from low, mid, high and high-dose-recovery dose groups with respective formulation concentrations once daily by oral route for a period of 28 consecutive days. Control and Control Recovery group animals were

administered with vehicle only and were handled similarly as treatment groups in all other aspects. Stainless steel oral gavage needle of 18 gauge was used. The dose volume was 10 ml/kg body weight and actual volume to be administered was calculated based on the recent body weights of each animal.

4.0 OBSERVATIONS

All the following observations were recorded from all the animals.

4.1 Mortality and Clinical Signs Observations

After dose administration, all the animals were observed carefully once a day throughout study period for clinical signs, and twice a day for morbidity and mortality. Following treatment cessation, observation period was extended for an additional 14 days for control-recovery (G1R) and high-dose-recovery (G4R) groups. Onset, severity, duration and the reversibility of clinical signs were recorded.

4.2 Detailed Clinical Observations

All animals were observed in detail for clinical observations at the end of acclimatization and once in a week during the study. Observation included were, changes in skin, fur, eyes, and mucous membranes, occurrence of secretions and excretions and basic observations of autonomic activity (e.g., lacrimation, piloerection, pupil size, and unusual respiratory pattern).

4.3 Body Weights

Body weights were recorded on Days 1, 8, 15, 22 and 28 for main group and continued on days 35 and 42 for recovery group animals. Additionally, body weights before randomization and fasted body weights on the day of necropsy were also recorded. Body weight gain was calculated for individual animal.

4.4 Feed Consumption

Feed consumption of all the groups were recorded once a week till the end of observation period. The quantity of average feed consumed by each animal per cage in week was recorded.

4.5 Ophthalmoscopic Examination

Ophthalmoscopic examination was performed once before treatment for all animals and during last week of treatment for vehicle control (G1) and high dose (G4) groups animals. The results of examinations during last week did not reveal any treatment related ocular changes, hence the examination was not extended to lower dose groups. During last week of recovery period all the animals (G1R and G4R) were examined for ophthalmic examination.

4.6 Clinical Pathology Observations

After completion of dosing period at day 28, all the main group animals and after completion of recovery period at day 42, all recovery group animals were fasted overnight (water allowed). The blood samples were withdrawn from retro-orbital sinuses veins, on day 29 from main study groups and on day 43 from recovery group animals for hematological and clinical chemistry analysis.

4.6.1 Hematology

For hematology analysis and coagulation analysis, whole blood was collected in vials containing 1% EDTA and 3.2% Sodium Citrate respectively as anticoagulant. Following hematological determinations will be carried out using Sysmex XP-100 Auto Analyzer and Erba EC-105 Coagulation Analyzer..

Sr. No.	Parameters	Unit
1	Total Erythrocyte Count (RBC)	$10^6/\mu\text{L}$
2	Haematocrit (HCT)	%
3	Mean Corpuscular Volume (MCV)	fL
4	Hemoglobin Concentration (HGB)	g/dL
5	Mean Hemoglobin Concentration (MCH)	pg
6	Mean Corpuscular Hemoglobin Concentration (MCHC)	g/dL
7	Platelet Count (PLT)	$10^3/\mu\text{L}$
8	Total Leukocyte Count (WBC)	$10^3/\mu\text{L}$
9	Prothrombin Time	Sec
10	Activated Partial Thromboplastin Time	Sec

Note: Differential leukocyte count and Reticulocyte count was performed manually. Additionally, blood smears were prepared on clean glass slide for all animals.

4.6.2 Clinical Chemistry

For clinical chemistry analysis blood samples were collected into vials containing heparin (250 IU/ml) as an anticoagulant and and centrifuged at 3000 rpm for 15 minutes. Plasma was separated and analyzed on Erba EM Destiny 180 Auto analyzer and SENSACORE Electrolyte Analyzer ST-200 CL. The following parameters were evaluated:

Sr. No.	Parameter	Unit
1	Glutamate Oxaloacetate Transaminase (GOT or AST)	U/L
2	Glutamate Pyruvate Transaminase (GPT or ALT)	U/L
3	Blood Urea Level (BUL)	mg/dl

4	Calculated Blood Urea Nitrogen (CBUN)	mg/dl
5	Creatinine (CREAT)	mg/dl
6	Glucose (GLU)	mg/dl
7	Total Cholesterol (CHOLE)	mg/dl
8	Total Protein (PRO)	g/dl
9	Albumin (ALB)	g/dl
10	Protein : Albumin ratio (PAR)	-

4.6.3 Urinalysis

During the last week of treatment and recovery periods, all the animals from each group were subjected to urine collection. Urine samples were analyzed for parameters such as appearance (colour and clarity), bilirubin (BIL), glucose (GLU), albumin / protein (PRO), pH, and specific gravity (SG) using Erba LAURA SMART urine analyzer.

Urine samples were centrifuged at 1500-2000 rpm for 5-10 min and sediments were examined microscopically for presence of cast, crystals and cellular elements.

4.7 Necropsy and Gross Pathology

On day 29, all animals from main group and on day 43, all animals from recovery group were humanely euthanized by using CO₂. All the animals subjected to detailed gross pathological examination, which include careful examination of the external surface of the body, all orifices, and the cranial, thoracic and abdominal cavities and their contents.

4.8 Organ Collection and Organ Weight

After gross pathology examination, organs viz. liver, kidneys, adrenals, testes/ovaries, thymus, spleen, brain and heart of all animals were trimmed off to remove any adherent tissue and were weighed wet. Paired organs were weighed together. Relative organ weights were calculated for each animal. The organs/tissues mentioned below from all animals were collected at necropsy and fixed in 10% Neutral Buffered Formalin for subsequent histopathological examination:

Adrenals	Liver	Spleen
Aorta	Lungs	Stomach
Bone (Bone marrow)	Lymph nodes (mesenteric)	Spinal cord
Brain	Ovaries	Testes*
Epididymis	Pancreas	Thymus (or thymic region)
Esophagus	Peripheral Nerve (sciatic)	Thyroid/parathyroid
Eyes*	Seminal Vesicle	Trachea

Heart	Skeletal Muscle	Urinary bladder
Kidneys	Skin	Vagina and Uterus
Large Intestine	Small Intestine	All tissues showing lesions

Note: *These organs were collected in Modified Davidson's Fixative.

4.9 Histopathology

The representative samples of all the preserved organs and tissues listed above from all control (G1) and high dose group (G4) animals were processed routinely and embedded in paraffin. The sections of 3-5 μ thickness were cut and stained with hematoxylin-eosin stain. No treatment related changes were observed in high dose group animals, so other lower groups and reversal group animals were not proceed for histopathological examination.

4.10 Data Analysis

All the individual data was summarized in terms of groups and sex to obtain mean and standard deviation. The body weight, feed consumption, hematology, clinical chemistry, and organ weight data was analyzed using one way ANOVA test followed by Dunnett's test using Graph Pad Prism (Version 7.03). All analysis and comparisons were evaluated at the 5% ($P \leq 0.05$) level in comparison with control.

4.11 Archives

All original raw data, QAU audited draft study plan, signed study plan, QAU audited draft report, final report along with study specimen (wet tissue samples, tissue blocks and slides) and electronic files of the study will be retained for 9 years from study completion date. Thereafter, the archived material will be disposed off or stored for an extended period according to the written instructions of the Sponsor.

5.0 RESULTS

5.1 Mortality and Clinical Signs Observations

All the animals survived till the scheduled necropsy. No any abnormal clinical signs were observed in any animal throughout experiment period. (Table 1; Appendix - I)

5.2 Detailed Clinical Observations

Weekly detailed clinical examinations did not reveal any treatment related clinical abnormalities in any animal throughout the experiment period. Observation included were changes in skin, fur, eyes, and mucous membranes, occurrence of secretions and excretions and basic observations of autonomic activity (e.g., lacrimation, piloerection, pupil size, and unusual respiratory pattern). (Table 2; Appendix - II)

5.3 Body Weights

Body weights and body weight gains of all the main and recovery treatment groups were comparable with those of respective control group.

However, statistically significant decrease in mean body weight was observed in G4R males on day 28 and in G2 females there was statistically significant increase in mean body weight was observed on day 8 and day 28.

Body weight gain of males showed significant decrease on day 15 (G2 and G3) and day 22 (G3), there was significant increase in mean body weight gain of G4R male on day 8, day 22 and day 28 in when compared with respective control groups. In case of females there was significant increase in mean body weight gain only in G2 group on day 8 and day 28 when compared with respective control groups.

The observed variations are not considered to be related to the treatment of test item due to lack of dose dependency and were not consistent. (Table 3 and Table 4; Appendix - III and Appendix - IV)

5.4 Feed Consumption

Mean Feed consumptions of main group males was comparable with that of controls. In case of G4 females there was significant decrease in mean feed consumption on day 15.

In case of G4R group males there was significant decrease in feed consumption on day 15 and in G4R females there was significant increase in feed consumption on days 22, 28 and 35. All other values of mean feed consumption of main and recovery treatment groups were comparable with those of respective control groups.

The changes observed in feed consumption were not considered to be related to the treatment of test item as there was no dose dependency seen and they were not consistent in both males and females. (Table 5; Appendix - V)

5.5 Ophthalmoscopic Examination

No treatment related ophthalmic signs were observed during scheduled ophthalmological examination of main groups i.e. control (G1) and high dose (G4) groups and recovery groups i.e. control recovery (G1R) and high dose recovery (G4R). As there were no abnormal sign observed in high dose (G4) group, no ophthalmoscopic examination was conducted in low and mid dose treatment groups. (Table 6; Appendix - VI)

5.6 Hematology

The hematological evaluation of all the main group males were comparable with those of control group. In case of females there was significant decrease in prothrombin time (PT) of G4 group and significant increase in mean corpuscular hemoglobin concentration (MCHC) in G2, G3 and G4 groups.

Hematological analysis of recovery group of males (G4R) showed statistically significant decrease in prothrombin time (PT) and activated partial thromboplastin time (APTT). In case of G4R females there was significant increase in prothrombin time (PT).

Differential Leucocyte Count (DLC) of recovery group males (G4R) revealed significant increase in neutrophil count and significant decrease in lymphocyte count. In case of females no difference was observed in DLC and were comparable with that of controls.

The changes observed in PT and APTT might be related to the treatment of test item, as were observed both in males and females.

Choi et al., (2016) reported that quercetin and isoquercetin inhibit the enzymatic activity of thrombin and FXa and suppress fibrin clot formation and blood clotting. Lee et al., (2015) reported antithrombotic activities of baicalin and Keihanian et al., (2017) reported antiplatelet and anticoagulant activities of curcumin. Decreased clotting time observed might be related to the pharmacological effect of test item and not a toxic effect. (Table 7 and Table 8; Appendix - VII and Appendix - VIII)

5.7 Clinical Chemistry

The clinical chemistry evaluation showed significant increase in glutamate pyruvate transaminase (GPT) only in G3 males and significant increase in glutamate oxaloacetate transaminase (GOT) in G4 females. All other clinical chemistry parameters of the main treatment groups were comparable with those of control group.

During recovery, there was significant increase in glutamate pyruvate transaminase (GPT) in G4R females, all other clinical chemistry parameters of males and females were comparable with recovery control group.

The changes observed in clinical chemistry parameters might not be related to treatment of test item due to lack of dose dependency and no correlating histopathological findings. (Table 9; Appendix - IX)

5.8 Urinalysis

No treatment related significant variations were observed in urinalysis parameters when compared to control group. (Table 10 and Table 11; Appendix – X and Appendix – XI)

5.9 Gross Pathology

Gross-pathological examination of main and recovery group animals showed no lesions of pathological significance when compared with respective Control groups except minimal reduction in size of right testis in one male each of G3 and G4 groups and minimal focal red spot in stomach of one G3 and G4 group males. Observed changes were considered incidental as no abnormality was observed in organs during histopathological examination. (Table 12; Appendix - XII)

5.10 Organ Weights

Absolute and relative organ weights of all the main and recovery treatment groups were comparable with those of respective control group, except significant increase in absolute brain weights of G2 and G3 females, absolute testes weights of G4R males and significant decreased in absolute ovaries weights of G4R females.

The organ weights of all animals relative to their respective terminal body weights were comparable with those of controls and no significant changes were noticed in any organ weights.

The changes were noted in organ weights might be incidental and not considered to be related to the treatment of test item due to lack of dose response and/or could be due to random biological variation. (Table 13 and Table 14; Appendix - XIII and Appendix - XIV)

5.11 Histopathology

Histopathology observations of high dose group animals were comparable with those of controls and no abnormal changes were detected which could be correlated to treatment of test item.

However, following spontaneous and /or incidental observations of minimal severity were observed in both Control (G1) and High dose (G4) group animals.

- **Lung:** Minimal focal peribronchial MNCs infiltration (Male: G1-1/6, G4-2/6; Female: G1-1/6, G4-1/6); Minimal focal oedematous fluid accumulation (Male: G1-1/6, G4-1/6);

- **Liver:** Minimal focal perivascular MNCs infiltration (Male: G1-1/6, G4-1/6; Female: G1-1/6, G4-1/6); Minimal focal necrosis (Male: G4-1/6; Female: G4-1/6);
- **Kidney:** Minimal focal tubular degeneration (Male: G4- 1/6; Female: G1-1/6; G4 -1/6).
(Table 15; Appendix - XV)

6.0 CONCLUSION

All animals well tolerated the oral doses of CORONASH™ up to and including 1000 mg/kg for 28 consecutive days without any toxic effects. The NOAEL for CORONASH™ is considered to be 1000 mg/kg in both sexes after 28 days repeated oral administration in Sprague Dawley rats under above study conditions.

7.0 STUDY PLAN AMENDMENT AND DEVIATIONS

There was no deviation and amendment to the study plan.

8.0 REFERENCES

- CPCSEA Guidelines for laboratory animal facility, Indian Journal of Pharmacology 2003; 35: 257-274.
- OECD Principles on Good Laboratory Practice (revised 1997, issued January 1998) ENV/MC/CHEM (98) 17 Environment Directorate, Organization for Economic Co-operation and Development, Paris, 1998.
- New Drugs and Clinical Trials Rules, Ministry of Health and Family Welfare, Government of India (Department of Health and Family Welfare), Gazette of India, (extraordinary) Part-II, Section 3(i) vide G.S.R. 227(E), dated 19th March, 2019.

SUMMARY TABLE 1: Clinical Signs and Mortality

Sex: Male

Group	Control	Low	Mid	High	Control Recovery	High Recovery
	G1	G2	G3	G4	G1R	G4R
Dose (mg/kg)	0	500	750	1000	0	1000
No of Animals	6	6	6	6	6	6
Mortality	0	0	0	0	0	0
Normal	6	6	6	6	6	6

Sex: Female

Group	Control	Low	Mid	High	Control Recovery	High Recovery
	G1	G2	G3	G4	G1R	G4R
Dose (mg/kg)	0	500	750	1000	0	1000
No of Animals	6	6	6	6	6	6
Mortality	0	0	0	0	0	0
Normal	6	6	6	6	6	6

SUMMARY TABLE 2: Detailed Clinical Observations

Sex: Male

No of Animals / NAD	Treatment Day							
	1	8	15	22	28		35	42
G1 Control							Dose: 0 mg/kg	
No of Animals	6	6	6	6	6		-	-
NAD	6	6	6	6	6		-	-
G2 Low							Dose: 500 mg/kg	
No of Animals	6	6	6	6	6		-	-
NAD	6	6	6	6	6		-	-
G3 Mid							Dose: 750 mg/kg	
No of Animals	6	6	6	6	6		-	-
NAD	6	6	6	6	6		-	-
G4 High							Dose: 1000 mg/kg	
No of Animals	6	6	6	6	6		-	-
NAD	6	6	6	6	6		-	-
G1R Control Recovery							Dose: 0 mg/kg	
No of Animals	6	6	6	6	6		6	6
NAD	6	6	6	6	6		6	6
G4R High Recovery							Dose: 1000 mg/kg	
No of Animals	6	6	6	6	6		6	6
NAD	6	6	6	6	6		6	6

Note: NAD = No Abnormality Detected.

SUMMARY TABLE 2 (Contd.): Detailed Clinical Observations

Sex: Female

No of Animals / NAD	Treatment Day							
	1	8	15	22	28	35	42	
G1 Control							Dose: 0 mg/kg	
No of Animals	6	6	6	6	6	-	-	
NAD	6	6	6	6	6	-	-	
G2 Low							Dose: 500 mg/kg	
No of Animals	6	6	6	6	6	-	-	
NAD	6	6	6	6	6	-	-	
G3 Mid							Dose: 750 mg/kg	
No of Animals	6	6	6	6	6	-	-	
NAD	6	6	6	6	6	-	-	
G4 High							Dose: 1000 mg/kg	
No of Animals	6	6	6	6	6	-	-	
NAD	6	6	6	6	6	-	-	
G1R Control Recovery							Dose: 0 mg/kg	
No of Animals	6	6	6	6	6	6	6	
NAD	6	6	6	6	6	6	6	
G4R High Recovery							Dose: 1000 mg/kg	
No of Animals	6	6	6	6	6	6	6	
NAD	6	6	6	6	6	6	6	

Note: NAD = No Abnormality Detected.

SUMMARY TABLE 3: Body Weight (gm)

Sex: Male

Mean/ SD/N	Treatment Day						
	1	8	15	22	28	35	42
G1 Control							Dose: 0 mg/kg
Mean	149.83	170.67	209.08	231.83	237.75	-	-
SD	13.34	10.84	13.94	9.50	16.99	-	-
N	6	6	6	6	6	-	-
G2 Low							Dose: 500 mg/kg
Mean	150.33	167.00	193.17	223.42	237.33	-	-
SD	10.92	12.43	13.88	17.61	21.53	-	-
N	6	6	6	6	6	-	-
G3 Mid							Dose: 750 mg/kg
Mean	150.17	173.50	191.67	209.67	224.33	-	-
SD	11.47	19.31	23.81	24.76	21.54	-	-
N	6	6	6	6	6	-	-
G4 High							Dose: 1000 mg/kg
Mean	151.25	178.67	201.42	227.67	242.42	-	-
SD	8.29	7.96	5.47	12.97	24.26	-	-
N	6	6	6	6	6	-	-
G1R Control Recovery							Dose: 0 mg/kg
Mean	150.67	185.58	212.00	228.83	246.50	261.33	274.75
SD	7.90	12.36	15.60	18.15	13.21	16.32	16.99
N	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg
Mean	151.25	174.25	194.92	210.58	224.17*	248.00	264.08
SD	10.19	12.81	13.82	13.28	14.96	15.48	16.23
N	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 3 (Contd.): Body Weight (gm)

Sex: Female

Mean/ SD/N	Treatment Day						
	1	8	15	22	28	35	42
G1 Control							Dose: 0 mg/kg
Mean	148.92	154.58	171.25	179.67	185.00	-	-
SD	7.70	14.05	12.82	10.59	10.53	-	-
N	6	6	6	6	6	-	-
G2 Low							Dose: 500 mg/kg
Mean	151.50	172.33*	180.17	194.33	199.33*	-	-
SD	7.40	10.97	11.40	13.23	12.02	-	-
N	6	6	6	6	6	-	-
G3 Mid							Dose: 750 mg/kg
Mean	150.75	165.50	175.50	183.67	192.42	-	-
SD	7.71	7.00	8.34	7.81	9.06	-	-
N	6	6	6	6	6	-	-
G4 High							Dose: 1000 mg/kg
Mean	149.67	163.75	170.42	180.75	185.50	-	-
SD	8.21	10.10	10.46	8.02	3.52	-	-
N	6	6	6	6	6	-	-
G1R Control Recovery							Dose: 0 mg/kg
Mean	150.17	163.00	174.50	186.67	190.58	199.83	207.83
SD	6.23	11.60	13.81	10.34	11.68	10.36	11.14
N	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg
Mean	150.08	164.50	172.83	184.08	188.67	197.08	204.92
SD	5.38	5.92	7.59	4.09	3.98	5.22	7.01
N	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 4: Body Weight Gain (gm)

Sex: Male

Mean/ SD/N	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
Mean	20.83	59.25	82.00	87.92	-	-
SD	4.08	4.78	10.24	24.36	-	-
N	6	6	6	6	-	-
G2 Low						Dose: 500 mg/kg
Mean	16.67	42.83*	73.08	87.00	-	-
SD	14.55	8.37	13.01	18.09	-	-
N	6	6	6	6	-	-
G3 Mid						Dose: 750 mg/kg
Mean	23.33	41.50*	59.50*	74.17	-	-
SD	8.29	13.21	14.21	11.92	-	-
N	6	6	6	6	-	-
G4 High						Dose: 1000 mg/kg
Mean	27.42	50.17	76.42	91.17	-	-
SD	5.61	11.69	16.74	30.50	-	-
N	6	6	6	6	-	-
G1R Control Recovery						Dose: 0 mg/kg
Mean	34.92	61.33	78.17	95.83	110.67	124.08
SD	7.61	14.54	14.23	13.09	15.49	17.08
N	6	6	6	6	6	6
G4R High Recovery						Dose: 1000 mg/kg
Mean	23.00*	43.67	59.33*	72.92*	96.75	112.83
SD	5.43	14.43	8.21	12.79	15.57	16.74
N	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 4 (Contd.): Body Weight Gain (gm)

Sex: Female

Mean/ SD/N	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
Mean	5.67	22.33	30.75	36.08	-	-
SD	7.33	8.09	7.90	7.87	-	-
N	6	6	6	6	-	-
G2 Low						Dose: 500 mg/kg
Mean	20.83*	28.67	42.83*	47.83	-	-
SD	8.24	6.11	10.35	10.20	-	-
N	6	6	6	6	-	-
G3 Mid						Dose: 750 mg/kg
Mean	14.75	24.75	32.92	41.67	-	-
SD	5.91	7.26	9.17	10.97	-	-
N	6	6	6	6	-	-
G4 High						Dose: 1000 mg/kg
Mean	14.08	20.75	31.08	35.83	-	-
SD	4.35	4.07	3.35	5.27	-	-
N	6	6	6	6	-	-
G1R Control Recovery						Dose: 0 mg/kg
Mean	12.83	24.33	36.50	40.42	49.67	57.67
SD	7.14	9.51	6.77	10.78	8.37	8.26
N	6	6	6	6	6	6
G4R High Recovery						Dose: 1000 mg/kg
Mean	14.42	22.75	34.00	38.58	47.00	54.83
SD	5.88	8.02	4.22	4.21	2.53	2.73
N	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 5: Feed Consumption

Sex: Male

Mean/ SD/N	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
Mean	313.00	379.75	347.50	343.25	-	-
SD	32.53	26.52	42.43	37.83	-	-
N	2	2	2	2	-	-
G2 Low						Dose: 500 mg/kg
Mean	251.25	349.50	344.00	309.00	-	-
SD	62.58	20.51	5.66	15.56	-	-
N	2	2	2	2	-	-
G3 Mid						Dose: 750 mg/kg
Mean	284.50	314.75	348.25	263.50	-	-
SD	98.29	111.37	45.61	4.24	-	-
N	2	2	2	2	-	-
G4 High						Dose: 1000 mg/kg
Mean	344.50	398.00	404.75	296.25	-	-
SD	31.82	21.21	37.12	22.27	-	-
N	2	2	2	2	-	-
G1R Control Recovery						Dose: 0 mg/kg
Mean	345.25	342.75	343.75	316.50	278.75	291.00
SD	48.44	3.89	62.58	15.56	3.18	3.54
N	2	2	2	2		
G4R High Recovery						Dose: 1000 mg/kg
Mean	305.50	330.25*	363.50	308.25	296.75	300.75
SD	37.48	6.01	28.28	22.27	22.27	17.32
N	2	2	2	2		

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 5 (Contd.): Feed Consumption

Sex: Female

Mean/ SD/N	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
Mean	241.50	290.00	263.50	221.50	-	-
SD	33.23	14.14	21.92	2.12	-	-
N	2	2	2	2	-	-
G2 Low						Dose: 500 mg/kg
Mean	287.50	298.50	309.75	248.25	-	-
SD	10.61	11.31	4.60	20.86	-	-
N	2	2	2	2	-	-
G3 Mid						Dose: 750 mg/kg
Mean	269.75	296.00	287.75	245.25	-	-
SD	6.01	7.07	9.55	12.37	-	-
N	2	2	2	2	-	-
G4 High						Dose: 1000 mg/kg
Mean	253.50	242.50*	263.75	213.50	-	-
SD	8.49	4.24	24.40	9.19	-	-
N	2	2	2	2	-	-
G1R Control Recovery						Dose: 0 mg/kg
Mean	248.25	251.25	277.75	218.75	159.00	179.75
SD	18.74	30.76	3.89	1.77	7.07	1.06
N	2	2	2	2	2	2
G4R High Recovery						Dose: 1000 mg/kg
Mean	262.25	252.75	319.75*	237.75*	207.75*	220.00
SD	5.30	12.37	15.20	18.03	52.68	55.86
N	2	2	2	2	2	2

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 6: Ophthalmoscopic Examination

Sex: Male

Dose (mg/kg)	0		1000		0		1000	
Dose Group	G1		G4		G1R		G4R	
Number Examined	6		6		6		6	
Eye	Right	Left	Right	Left	Right	Left	Right	Left
NAD	6	6	6	6	6	6	6	6

Note: NAD = No Abnormality Detected;

Sex: Female

Dose (mg/kg)	0		1000		0		1000	
Dose Group	G1		G4		G1R		G4R	
Number Examined	6		6		6		6	
Eye	Right	Left	Right	Left	Right	Left	Right	Left
NAD	6	6	6	6	6	6	6	6

Note: NAD = No Abnormality Detected;

SUMMARY TABLE 7: Hematology

Sex: Male

Mean/ SD/N	WBC	RBC	HGB	HCT	MCV	MCH	MCHC	PLT	PT	APTT	RETICS
	(10 ³ /μL)	(10 ⁶ /μL)	(g/dL)	(%)	(fL)	(pg)	(g/dL)	(10 ³ /μL)	(sec)	(sec)	(%)
G1 Control									Dose: 0 mg/kg		
Mean	19.57	7.63	14.03	44.17	58.00	18.48	31.85	762.33	18.46	23.65	1.23
SD	6.60	1.18	1.67	6.11	1.82	0.77	0.90	259.03	4.46	1.76	0.23
N	6	6	6	6	6	6	6	6	6	6	6
G2 Low									Dose: 500 mg/kg		
Mean	17.00	7.22	13.37	41.67	57.82	18.55	32.10	896.00	17.18	26.43	1.33
SD	6.92	0.58	0.79	2.83	1.74	0.67	0.52	107.53	2.82	4.88	0.24
N	6	6	6	6	6	6	6	6	6	6	6
G3 Mid									Dose: 750 mg/kg		
Mean	12.45	8.17	14.78	46.62	56.97	18.07	31.72	738.83	17.65	26.90	1.20
SD	6.13	1.19	2.41	7.68	1.19	0.48	0.49	88.64	0.64	6.39	0.18
N	6	6	6	6	6	6	6	6	6	6	6
G4 High									Dose: 1000 mg/kg		
Mean	20.47	7.32	13.27	41.65	56.93	18.15	31.88	939.83	18.59	22.03	1.23
SD	4.83	0.47	0.58	2.50	1.52	0.81	0.89	92.80	2.09	3.79	0.15
N	6	6	6	6	6	6	6	6	6	6	6
G1R Control Recovery									Dose: 0 mg/kg		
Mean	16.07	7.42	13.55	42.90	57.93	18.32	31.60	779.00	30.92	30.92	1.40
SD	7.06	0.71	0.93	3.28	1.45	0.67	0.50	198.44	8.86	8.86	0.18
N	6	6	6	6	6	6	6	6	6	6	6
G4R High Recovery									Dose: 1000 mg/kg		
Mean	17.08	8.03	14.10	45.22	56.40	17.60	31.22	876.00	21.52*	17.70*	1.37
SD	8.02	0.62	0.59	2.52	2.35	0.85	0.71	70.17	1.25	2.85	0.15
N	6	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation;

Key: * = Mean value of group significantly different from control group at p<0.05

SUMMARY TABLE 7 (Contd.): Hematology

Sex: Female

Mean/ SD/N	WBC	RBC	HGB	HCT	MCV	MCH	MCHC	PLT	PT	APTT	RETICS
	(10 ³ /μL)	(10 ⁶ /μL)	(g/dL)	(%)	(fL)	(pg)	(g/dL)	(10 ³ /μL)	(sec)	(sec)	(%)
G1 Control									Dose: 0 mg/kg		
Mean	10.40	6.69	12.52	38.48	57.70	18.77	32.52	788.67	26.84	22.75	1.30
SD	5.12	1.07	1.81	5.47	1.34	0.70	0.85	192.33	2.91	4.66	0.21
N	6	6	6	6	6	6	6	6	6	6	6
G2 Low									Dose: 500 mg/kg		
Mean	9.80	6.81	13.23	39.33	57.73	19.42	33.63*	979.33	22.66	27.05	1.27
SD	3.40	0.23	0.55	1.60	1.49	0.53	0.39	91.18	5.34	6.81	0.16
N	6	6	6	6	6	6	6	6	6	6	6
G3 Mid									Dose: 750 mg/kg		
Mean	7.03	7.26	14.20	41.55	57.27	19.57	34.17*	799.83	20.71	22.90	1.23
SD	2.22	0.92	1.69	4.86	0.85	0.37	0.49	332.22	2.54	1.13	0.15
N	6	6	6	6	6	6	6	6	6	6	6
G4 High									Dose: 1000 mg/kg		
Mean	9.70	6.82	13.27	39.25	57.58	19.45	33.78*	911.50	14.34*	25.78	1.23
SD	4.17	0.31	0.65	1.79	1.78	0.78	0.35	99.86	6.69	3.98	0.15
N	6	6	6	6	6	6	6	6	6	6	6
G1R Control Recovery									Dose: 0 mg/kg		
Mean	12.90	6.77	12.92	39.45	58.32	19.07	32.72	931.67	18.97	19.77	1.40
SD	3.32	0.84	1.77	5.17	4.50	1.35	0.50	67.41	0.80	2.45	0.18
N	6	6	6	6	6	6	6	6	6	6	6
G4R High Recovery									Dose: 1000 mg/kg		
Mean	13.15	7.27	13.75	41.27	56.85	18.93	33.32	917.83	20.15*	17.82	1.37
SD	2.91	0.34	0.47	1.17	2.42	1.12	0.51	98.00	0.85	1.60	0.15
N	6	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at p<0.05

SUMMARY TABLE 8: Differential Leukocyte Count (%)

Sex: Male

Mean/SD/N	Neutrophils	Lymphocytes	Monocytes	Eosinophils	Basophils
G1 Control					Dose: 0 mg/kg
Mean	24.50	72.83	0.83	1.50	0.33
SD	3.27	3.54	0.75	1.05	0.52
N	6	6	6	6	6
G2 Low					Dose: 500 mg/kg
Mean	27.33	70.00	0.67	1.67	0.33
SD	3.08	2.76	0.52	0.82	0.52
N	6	6	6	6	6
G3 Mid					Dose: 750 mg/kg
Mean	26.17	71.00	0.50	2.17	0.17
SD	3.66	3.74	0.55	0.75	0.41
N	6	6	6	6	6
G4 High					Dose: 1000 mg/kg
Mean	25.50	72.17	0.50	1.50	0.33
SD	2.88	2.86	0.55	1.05	0.52
N	6	6	6	6	6
G1R Control Recovery					Dose: 0 mg/kg
Mean	15.67	82.17	1.67	0.50	0.00
SD	0.82	2.32	1.21	0.84	0.00
N	6	6	6	6	6
G4R High Recovery					Dose: 1000 mg/kg
Mean	19.17*	78.50*	1.67	0.67	0.00
SD	1.17	2.07	1.03	1.03	0.00
N	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 8 (Contd.): Differential Leukocyte Count (%)

Sex: Female

Mean/SD/N	Neutrophils	Lymphocytes	Monocytes	Eosinophils	Basophils
G1 Control					Dose: 0 mg/kg
Mean	26.00	72.00	0.50	1.33	0.17
SD	3.74	3.79	0.55	1.03	0.41
N	6	6	6	6	6
G2 Low					Dose: 500 mg/kg
Mean	26.50	71.33	0.33	1.67	0.17
SD	2.35	2.16	0.52	0.52	0.41
N	6	6	6	6	6
G3 Mid					Dose: 750 mg/kg
Mean	27.00	71.33	0.50	1.00	0.17
SD	2.76	2.80	0.55	0.89	0.41
N	6	6	6	6	6
G4 High					Dose: 1000 mg/kg
Mean	26.50	70.67	0.67	1.83	0.33
SD	2.59	2.58	0.52	0.41	0.52
N	6	6	6	6	6
G1R Control Recovery					Dose: 0 mg/kg
Mean	18.67	79.33	1.33	0.67	0.00
SD	2.16	2.34	0.82	0.52	0.00
N	6	6	6	6	6
G4R High Recovery					Dose: 1000 mg/kg
Mean	20.17	78.00	1.17	0.67	0.00
SD	2.64	2.10	0.75	0.52	0.00
N	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

SUMMARY TABLE 9: Clinical Chemistry

Sex: Male

Mean/ SD/N	GPT U/L	GOT U/L	BUL mg/dl	BUN mg/dl	CREAT mg/dl	GLU mg/dl	CHOLE mg/dl	ALB mg/dl	PRO g/dl	PAR -
Dose: 0 mg/kg										
G1 Control										
Mean	97.70	109.37	39.68	18.50	0.66	65.10	70.83	1.90	4.99	2.74
SD	19.73	33.43	12.29	5.65	0.32	19.22	26.14	0.56	0.74	0.53
N	6	6	6	6	6	6	6	6	6	6
Dose: 500 mg/kg										
G2 Low										
Mean	122.77	154.43	36.55	17.17	0.67	52.28	74.00	1.88	4.98	2.82
SD	27.86	52.37	7.70	3.49	0.20	17.97	18.99	0.60	0.65	0.66
N	6	6	6	6	6	6	6	6	6	6
Dose: 750 mg/kg										
G3 Mid										
Mean	141.45*	169.00	39.23	18.33	0.94	49.15	66.17	1.68	4.71	2.93
SD	30.50	46.03	11.77	5.47	0.37	18.36	5.81	0.44	0.66	0.59
N	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at p<0.05

SUMMARY TABLE 9 (Contd.): Clinical Chemistry

Sex: Male

Mean/ SD/N	GPT U/L	GOT U/L	BUL mg/dl	BUN mg/dl	CREAT mg/dl	GLU mg/dl	CHOLE mg/dl	ALB mg/dl	PRO g/dl	PAR -
Dose: 1000 mg/kg										
G4 High										
Mean	103.10	139.65	30.30	14.00	0.76	60.08	50.67	1.74	4.82	3.00
SD	29.40	33.07	6.43	2.97	0.31	13.51	22.29	0.59	0.71	0.90
N	6	6	6	6	6	6	6	6	6	6
Dose: 0 mg/kg										
G1R Control Recovery										
Mean	108.63	118.38	53.02	24.67	0.83	61.57	72.33	1.18	6.26	6.16
SD	19.31	25.77	38.54	17.96	0.11	24.02	10.56	0.49	0.59	2.63
N	6	6	6	6	6	6	6	6	6	6
Dose: 1000										
G4R High Recovery										
Mean	99.45	132.15	67.22	31.50	0.83	66.50	63.67	1.20	6.15	5.70
SD	16.26	46.84	68.75	32.26	0.22	39.09	5.82	0.49	0.44	1.92
N	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

SUMMARY TABLE 9 (Contd.): Clinical Chemistry

Sex: Female

Mean/ SD/N	GPT U/L	GOT U/L	BUL mg/dl	BUN mg/dl	CREAT mg/dl	GLU mg/dl	CHOLE mg/dl	ALB mg/dl	PRO g/dl	PAR -
G1 Control										
Dose: 0 mg/kg										
Mean	73.73	95.73	17.98	8.33	0.62	34.72	60.67	0.87	3.96	4.99
SD	14.00	21.75	7.82	3.72	0.11	12.87	16.81	0.29	0.34	1.65
N	6	6	6	6	6	6	6	6	6	6
G2 Low										
Dose: 500 mg/kg										
Mean	74.90	100.87	14.98	6.83	0.65	31.33	74.80	0.91	3.95	4.81
SD	21.77	20.29	5.48	2.48	0.16	15.06	10.06	0.36	0.30	1.58
N	6	6	6	6	6	6	6	6	6	6
G3 Mid										
Dose: 750 mg/kg										
Mean	85.67	97.90	12.82	6.00	0.77	27.10	74.50	0.76	3.97	5.93
SD	10.42	19.25	5.45	2.37	0.21	8.86	13.32	0.36	0.27	1.79
N	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

SUMMARY TABLE 9 (Contd.): Clinical Chemistry

Sex: Female

Mean/ SD/N	GPT U/L	GOT U/L	BUL mg/dl	BUN mg/dl	CREAT mg/dl	GLU mg/dl	CHOLE mg/dl	ALB mg/dl	PRO g/dl	PAR -
Dose: 1000 mg/kg										
G4 High										
Mean	109.85	175.85*	17.88	8.17	0.82	37.20	53.83	0.79	3.74	5.53
SD	60.80	102.76	8.69	4.02	0.31	20.10	20.76	0.34	0.47	2.38
N	6	6	6	6	6	6	6	6	6	6
Dose: 0 mg/kg										
G1R Control Recovery										
Mean	84.87	98.03	75.23	35.00	0.77	27.33	67.83	0.77	5.87	8.11
SD	10.31	17.77	33.78	15.70	0.13	9.45	12.89	0.26	0.70	2.09
N	6	6	6	6	6	6	6	6	6	6
Dose: 1000 mg/kg										
G4R High Recovery										
Mean	98.73*	105.02	80.23	37.67	0.77	31.68	80.00	0.84	6.15	7.47
SD	8.74	16.03	39.01	18.24	0.12	7.62	14.79	0.13	0.34	0.91
N	6	6	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 10: Qualitative Urinalysis

Sex: Male

Parameter / Observation		Qualitative Urinalysis					
Dose (mg/kg)		0	500	750	1000	0	1000
Groups		G1	G2	G3	G4	G1R	G4R
Number examined		6	6	6	6	6	6
Specific Gravity							
Mean		1.006	1.009	1.014	1.015	1.024	1.03
SD		0.002	0.007	0.012	0.012	0.012	0.01
pH							
Mean		9.00	7.58	7.58	7.25	6.33	6.17
SD		0.00	1.28	1.11	1.41	0.26	0.61
Color							
Yellow		6	6	6	6	6	6
Spraw		0	0	0	0	0	0
Turbidity							
Clear		6	6	6	6	6	6
Bilirubin							
Negative		6	6	6	6	6	6
Positive		0	0	0	0	0	0
Glucose							
Negative		6	6	6	6	6	6
Positive		0	0	0	0	0	0
Protein							
Negative		6	6	6	6	6	6
Positive		0	0	0	0	0	0

Note: SD = Standard Deviation

SUMMARY TABLE 10 (Contd.): Qualitative Urinalysis

Sex: Female

Parameter / Observation	Qualitative Urinalysis					
Dose (mg/kg)	0	500	750	1000	0	1000
Groups	G1	G2	G3	G4	G1R	G4R
Number examined	6	6	6	6	6	6
Specific Gravity						
Mean	1.005	1.005	1.004	1.004	1.026	1.023
SD	0.000	0.000	0.002	0.004	0.008	0.012
pH						
Mean	8.17	8.33	7.67	7.33	6.17	6.25
SD	0.41	0.52	1.37	1.86	0.26	0.61
Color						
Yellow	6	6	6	6	6	6
Spraw	0	0	0	0	0	0
Turbidity						
Clear	6	6	6	6	6	6
Bilirubin						
Negative	6	6	6	6	6	6
Positive	0	0	0	0	0	0
Glucose						
Negative	6	6	6	6	6	6
Positive	0	0	0	0	0	0
Protein						
Negative	6	6	6	6	6	5
Positive	0	0	0	0	0	1

Note: SD = Standard Deviation

SUMMARY TABLE 11: Microscopic Urinalysis

Sex: Male

Mean/SD/N	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G1 Control					Dose: 0 mg/kg
Mean	0.00	0.00	0.00	0.00	0.00
SD	0.00	0.00	0.00	0.00	0.00
N	6	6	6	6	6
G2 Low					Dose: 500 mg/kg
Mean	0.00	0.00	0.00	0.17	0.17
SD	0.00	0.00	0.00	0.41	0.41
N	6	6	6	6	6
G3 Mid					Dose: 750 mg/kg
Mean	0.00	0.00	0.00	0.00	0.17
SD	0.00	0.00	0.00	0.00	0.41
N	6	6	6	6	6
G4 High					Dose: 1000 mg/kg
Mean	0.00	0.00	0.00	0.33	0.17
SD	0.00	0.00	0.00	0.52	0.41
N	6	6	6	6	6
G1R Control Recovery					Dose: 0 mg/kg
Mean	0.00	0.00	0.17	0.33	0.00
SD	0.00	0.00	0.41	0.52	0.00
N	6	6	6	6	6
G4R High Recovery					Dose: 1000 mg/kg
Mean	0.00	0.00	0.17	0.17	0.33
SD	0.00	0.00	0.41	0.41	0.52
N	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation;

SUMMARY TABLE 11 (Contd.): Microscopic Urinalysis

Sex: Female

Mean/SD/N	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G1 Control					Dose: 0 mg/kg
Mean	0.00	0.00	0.00	0.00	0.17
SD	0.00	0.00	0.00	0.00	0.41
N	6	6	6	6	6
G2 Low					Dose: 500 mg/kg
Mean	0.00	0.00	0.00	0.17	0.17
SD	0.00	0.00	0.00	0.41	0.41
N	6	6	6	6	6
G3 Mid					Dose: 750 mg/kg
Mean	0.00	0.00	0.00	0.00	0.17
SD	0.00	0.00	0.00	0.00	0.41
N	6	6	6	6	6
G4 High					Dose: 1000 mg/kg
Mean	0.00	0.00	0.00	0.33	0.17
SD	0.00	0.00	0.00	0.52	0.41
N	6	6	6	6	6
G1R Control Recovery					Dose: 0 mg/kg
Mean	0.00	0.00	0.17	0.17	0.00
SD	0.00	0.00	0.41	0.41	0.00
N	6	6	6	6	6
G4R High Recovery					Dose: 1000 mg/kg
Mean	0.00	0.00	0.17	0.17	0.33
SD	0.00	0.00	0.41	0.41	0.52
N	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation;

SUMMARY TABLE 12: Gross Pathology Observations

Tissue/ Findings/ Sex	Males						Females					
Dose Group	G1	G2	G3	G4	G1R	G4R	G1	G2	G3	G4	G1R	G4R
Dose mg/kg/day	0	500	750	1000	0	1000	0	500	750	1000	0	1000
Number Examined	6	6	6	6	6	6	6	6	6	6	6	6
Testes												
Minimal reduction in size of right testes	0	0	1	1	0	0	NA	NA	NA	NA	NA	NA
Stomach												
Hemorrhages in stomach	0	0	1	0	0	0	0	0	0	0	0	0
NAD	6	6	4	5	6	6	6	6	6	6	6	6

Note: NAD = No Abnormality Detected

SUMMARY TABLE 13: Absolute Organ Weight (gm)

Sex: Male

Mean/SD/N	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G1 Control							Dose: 0 mg/kg	
Mean	8.128	0.681	0.678	0.164	1.639	0.027	2.339	1.583
SD	1.141	0.157	0.092	0.039	0.195	0.004	0.292	0.252
N	6	6	6	6	6	6	6	6
G2 Low							Dose: 500 mg/kg	
Mean	8.366	0.693	0.744	0.205	1.631	0.029	1.901	1.511
SD	1.593	0.299	0.171	0.076	0.241	0.004	0.774	0.241
N	6	6	6	6	6	6	6	6
G3 Mid							Dose: 750 mg/kg	
Mean	6.739	0.510	0.648	0.118	1.550	0.028	2.267	1.543
SD	1.673	0.198	0.050	0.056	0.237	0.006	0.294	0.219
N	6	6	6	6	6	6	6	6
G4 High							Dose: 1000 mg/kg	
Mean	8.286	0.598	0.766	0.183	1.690	0.034	1.819	1.527
SD	1.377	0.075	0.099	0.036	0.218	0.006	0.714	0.166
N	6	6	6	6	6	6	6	6
G1R Control Recovery							Dose: 0 mg/kg	
Mean	9.058	0.595	0.812	0.174	1.828	0.032	1.975	1.633
SD	1.496	0.135	0.123	0.060	0.215	0.003	0.662	0.199
N	6	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg	
Mean	8.952	0.661	1.038	0.180	1.773	0.035	2.251*	1.646
SD	1.249	0.205	0.370	0.048	0.173	0.003	0.696	0.087
N	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 13 (Contd.): Absolute Organ Weight (gm)

Sex: Female

Mean/SD/N	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Ovaries	Brain
G1 Control							Dose: 0 mg/kg	
Mean	6.271	0.500	0.634	0.173	1.230	0.043	0.084	1.591
SD	0.917	0.092	0.043	0.041	0.138	0.008	0.015	0.067
N	6	6	6	6	6	6	6	6
G2 Low							Dose: 500 mg/kg	
Mean	6.410	0.527	0.669	0.191	1.243	0.043	0.081	1.690*
SD	0.831	0.124	0.059	0.056	0.184	0.007	0.012	0.082
N	6	6	6	6	6	6	6	6
G3 Mid							Dose: 750 mg/kg	
Mean	6.042	0.489	0.620	0.164	1.241	0.049	0.086	1.713*
SD	0.542	0.066	0.051	0.025	0.064	0.008	0.004	0.040
N	6	6	6	6	6	6	6	6
G4 High							Dose: 1000 mg/kg	
Mean	6.092	0.398	0.604	0.167	1.206	0.040	0.078	1.580
SD	0.868	0.063	0.034	0.021	0.094	0.007	0.008	0.050
N	6	6	6	6	6	6	6	6
G1R Control Recovery							Dose: 0 mg/kg	
Mean	6.649	0.576	0.684	0.174	1.360	0.049	0.080	1.645
SD	0.831	0.159	0.097	0.094	0.133	0.006	0.011	0.079
N	6	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg	
Mean	6.245	0.585	0.667	0.194	1.313	0.039	0.055*	1.517
SD	0.474	0.104	0.065	0.098	0.201	0.008	0.019	0.180
N	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 14: Organ Weight Relative to Terminal Body Weight (gm)

Sex: Male

Mean/SD/N	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G1 Control							Dose: 0 mg/kg	
Mean	3.580	0.297	0.300	0.072	0.720	0.012	1.033	0.694
SD	0.542	0.053	0.053	0.020	0.083	0.003	0.187	0.103
N	6	6	6	6	6	6	6	6
G2 Low							Dose: 500 mg/kg	
Mean	3.720	0.309	0.334	0.093	0.728	0.013	0.854	0.670
SD	0.695	0.129	0.096	0.039	0.129	0.002	0.344	0.099
N	6	6	6	6	6	6	6	6
G3 Mid							Dose: 750 mg/kg	
Mean	3.193	0.243	0.308	0.056	0.732	0.013	1.074	0.735
SD	0.792	0.102	0.038	0.025	0.089	0.002	0.139	0.138
N	6	6	6	6	6	6	6	6
G4 High							Dose: 1000 mg/kg	
Mean	3.569	0.259	0.331	0.079	0.730	0.015	0.778	0.668
SD	0.318	0.034	0.027	0.016	0.042	0.003	0.260	0.113
N	6	6	6	6	6	6	6	6
G1R Control Recovery							Dose: 0 mg/kg	
Mean	3.422	0.226	0.307	0.066	0.694	0.012	0.743	0.625
SD	0.363	0.053	0.030	0.022	0.063	0.001	0.225	0.104
N	6	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg	
Mean	3.534	0.263	0.408	0.072	0.702	0.014	0.889	0.654
SD	0.317	0.088	0.127	0.023	0.050	0.001	0.265	0.063
N	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 14 (Contd.): Organ Weight Relative to Terminal Body Weight (gm)

Sex: Female

Mean/SD/N	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G1 Control							Dose: 0 mg/kg	
Mean	3.608	0.289	0.366	0.100	0.709	0.025	0.048	0.919
SD	0.433	0.054	0.019	0.025	0.066	0.004	0.007	0.061
N	6	6	6	6	6	6	6	6
G2 Low							Dose: 500 mg/kg	
Mean	3.421	0.280	0.357	0.102	0.662	0.023	0.043	0.903
SD	0.372	0.055	0.017	0.028	0.075	0.002	0.006	0.042
N	6	6	6	6	6	6	6	6
G3 Mid							Dose: 750 mg/kg	
Mean	3.322	0.268	0.342	0.090	0.683	0.027	0.047	0.944
SD	0.272	0.029	0.035	0.014	0.044	0.004	0.003	0.067
N	6	6	6	6	6	6	6	6
G4 High							Dose: 1000 mg/kg	
Mean	3.477	0.227	0.345	0.096	0.689	0.023	0.044	0.903
SD	0.442	0.031	0.018	0.012	0.043	0.004	0.005	0.025
N	6	6	6	6	6	6	6	6
G1R Control Recovery							Dose: 0 mg/kg	
Mean	3.365	0.294	0.346	0.089	0.689	0.025	0.041	0.835
SD	0.284	0.085	0.033	0.051	0.040	0.002	0.006	0.031
N	6	6	6	6	6	6	6	6
G4R High Recovery							Dose: 1000 mg/kg	
Mean	3.192	0.298	0.341	0.099	0.672	0.020	0.028	0.774
SD	0.245	0.049	0.035	0.050	0.109	0.004	0.010	0.082
N	6	6	6	6	6	6	6	6

Note: N = number of animals; SD = Standard Deviation

Key: * = Mean value of group significantly different from control group at $p < 0.05$

SUMMARY TABLE 15: Histopathology Observations

Tissue/ Findings/Sex	Males						Females					
Dose Group	G1	G2	G3	G4	G1R	G4R	G1	G2	G3	G4	G1R	G4R
Dose: mg/kg/day	0	500	750	1000	0	1000	0	500	750	1000	0	1000
Number Examined	6	6	6	6	NA	NA	6	6	6	6	NA	NA
Lungs												
Minimal focal Peri bronchial MNCs infiltration	1	NA	NA	2	NA	NA	1	NA	NA	1	NA	NA
Minimal focal oedematous fluid accumulation	1	NA	NA	1	NA	NA	0	NA	NA	0	NA	NA
Liver												
Minimal focal Perivascular MNCs infiltration	1	NA	NA	1	NA	NA	1	NA	NA	1	NA	NA
Minimal focal necrosis	0	NA	NA	1	NA	NA	0	NA	NA	1	NA	NA
Kidney												
Minimal focal tubular degeneration	0	NA	NA	1	NA	NA	1	NA	NA	1	NA	NA

APPENDIX – I: Individual Animal Clinical Signs

Sex: Male

Animal No.		Treatment Day																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
G1 Control		Dose: 0 mg/kg																													
26101	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26102	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26103	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26104	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26105	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26106	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G2 Low		Dose: 500 mg/kg																													
26113	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26114	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26115	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26116	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26117	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26118	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Male

Animal No.	Treatment Day																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
G3 Mid	Dose: 750 mg/kg																												
26125	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26126	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26127	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26128	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26129	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26130	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4 High	Dose: 1000 mg/kg																												
26137	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26138	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26139	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26140	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26141	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26142	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Male

Animal No.	Treatment Day																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
G1R Control Recovery		Dose: 0 mg/kg																											
26149	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26150	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26151	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26152	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26153	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26154	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4R High Recovery		Dose: 1000 mg/kg																											
26161	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26162	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26163	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26164	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26165	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26166	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Male

Animal No.	Treatment Day														Dose: 0 mg/kg
	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
G1R Control Recovery															
26149	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26150	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26151	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26152	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26153	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26154	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4R High Recovery															
Dose: 1000 mg/kg															
26161	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26162	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26163	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26164	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26165	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26166	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Female

Animal No.	Treatment Day																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Dose: 0 mg/kg																													
G1 Control																													
26107	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26108	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26109	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26110	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26111	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26112	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G2 Low																													
Dose: 500 mg/kg																													
26119	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26120	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26121	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26122	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26123	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26124	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Female

Animal No.	Treatment Day																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
G3 Mid	Dose: 750 mg/kg																												
26131	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26132	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26133	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26134	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26135	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26136	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4 High	Dose: 1000 mg/kg																												
26143	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26144	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26145	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26146	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26147	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26148	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Female

Animal No.	Treatment Day																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
G1R Control Recovery																													
26155	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26156	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26157	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26158	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26159	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26160	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4R High Recovery																													
26167	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26168	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26169	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26170	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26171	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26172	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – I (Contd.): Individual Animal Clinical Signs

Sex: Female

Animal No.	Treatment Day														
	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
G1R Control Recovery															
26155	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26156	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26157	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26158	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26159	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26160	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
G4R High Recovery															
Dose: 1000 mg/kg															
26167	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26168	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26169	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26170	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26171	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26172	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Key: N = Normal

APPENDIX – II: Individual Animal Detailed Clinical Observations

Sex: Male

Animal No.	Treatment Day							
	1	8	15	22	28		35	42
G1 Control							Dose: 0 mg/kg	
26101	NAD	NAD	NAD	NAD	NAD		-	-
26102	NAD	NAD	NAD	NAD	NAD		-	-
26103	NAD	NAD	NAD	NAD	NAD		-	-
26104	NAD	NAD	NAD	NAD	NAD		-	-
26105	NAD	NAD	NAD	NAD	NAD		-	-
26106	NAD	NAD	NAD	NAD	NAD		-	-
G2 Low							Dose: 500 mg/kg	
26113	NAD	NAD	NAD	NAD	NAD		-	-
26114	NAD	NAD	NAD	NAD	NAD		-	-
26115	NAD	NAD	NAD	NAD	NAD		-	-
26116	NAD	NAD	NAD	NAD	NAD		-	-
26117	NAD	NAD	NAD	NAD	NAD		-	-
26118	NAD	NAD	NAD	NAD	NAD		-	-
G3 Mid							Dose: 750 mg/kg	
26125	NAD	NAD	NAD	NAD	NAD		-	-
26126	NAD	NAD	NAD	NAD	NAD		-	-
26127	NAD	NAD	NAD	NAD	NAD		-	-
26128	NAD	NAD	NAD	NAD	NAD		-	-
26129	NAD	NAD	NAD	NAD	NAD		-	-
26130	NAD	NAD	NAD	NAD	NAD		-	-

Note: NAD = No Abnormality Detected

APPENDIX – II (Contd.): Individual Animal Detailed Clinical Observations

Sex: Male

Animal No.	Treatment Day						
	1	8	15	22	28	35	42
G4 High							Dose: 1000 mg/kg
26137	NAD	NAD	NAD	NAD	NAD	-	-
26138	NAD	NAD	NAD	NAD	NAD	-	-
26139	NAD	NAD	NAD	NAD	NAD	-	-
26140	NAD	NAD	NAD	NAD	NAD	-	-
26141	NAD	NAD	NAD	NAD	NAD	-	-
26142	NAD	NAD	NAD	NAD	NAD	-	-
G1R Control Recovery							Dose: 0 mg/kg
26149	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26150	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26151	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26152	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26153	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26154	NAD	NAD	NAD	NAD	NAD	NAD	NAD
G4R High Recovery							Dose: 1000 mg/kg
26161	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26162	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26163	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26164	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26165	NAD	NAD	NAD	NAD	NAD	NAD	NAD
26166	NAD	NAD	NAD	NAD	NAD	NAD	NAD

Note: NAD = No Abnormality Detected

APPENDIX – II (Contd.): Individual Animal Detailed Clinical Observations

Sex: Female

Animal No.	Treatment Day							
	1	8	15	22	28		35	42
G1 Control							Dose: 0 mg/kg	
26107	NAD	NAD	NAD	NAD	NAD		-	-
26108	NAD	NAD	NAD	NAD	NAD		-	-
26109	NAD	NAD	NAD	NAD	NAD		-	-
26110	NAD	NAD	NAD	NAD	NAD		-	-
26111	NAD	NAD	NAD	NAD	NAD		-	-
26112	NAD	NAD	NAD	NAD	NAD		-	-
G2 Low							Dose: 500 mg/kg	
26119	NAD	NAD	NAD	NAD	NAD		-	-
26120	NAD	NAD	NAD	NAD	NAD		-	-
26121	NAD	NAD	NAD	NAD	NAD		-	-
26122	NAD	NAD	NAD	NAD	NAD		-	-
26123	NAD	NAD	NAD	NAD	NAD		-	-
26124	NAD	NAD	NAD	NAD	NAD		-	-
G3 Mid							Dose: 750 mg/kg	
26131	NAD	NAD	NAD	NAD	NAD		-	-
26132	NAD	NAD	NAD	NAD	NAD		-	-
26133	NAD	NAD	NAD	NAD	NAD		-	-
26134	NAD	NAD	NAD	NAD	NAD		-	-
26135	NAD	NAD	NAD	NAD	NAD		-	-
26136	NAD	NAD	NAD	NAD	NAD		-	-

Note: NAD = No Abnormality Detected

APPENDIX – II (Contd.): Individual Animal Detailed Clinical Observations

Sex: Female

Animal No.	Treatment Day							
	1	8	15	22	28		35	42
G4 High							Dose: 1000 mg/kg	
26143	NAD	NAD	NAD	NAD	NAD		-	-
26144	NAD	NAD	NAD	NAD	NAD		-	-
26145	NAD	NAD	NAD	NAD	NAD		-	-
26146	NAD	NAD	NAD	NAD	NAD		-	-
26147	NAD	NAD	NAD	NAD	NAD		-	-
26148	NAD	NAD	NAD	NAD	NAD		-	-
GIR Control Recovery							Dose: 0 mg/kg	
26155	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26156	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26157	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26158	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26159	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26160	NAD	NAD	NAD	NAD	NAD		NAD	NAD
G4R High Recovery							Dose: 1000 mg/kg	
26167	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26168	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26169	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26170	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26171	NAD	NAD	NAD	NAD	NAD		NAD	NAD
26172	NAD	NAD	NAD	NAD	NAD		NAD	NAD

Note: NAD = No Abnormality Detected

APPENDIX – III: Individual Animal Body Weight (gm)

Sex: Male

Animal No.	Treatment Day						
	1	8	15	22	28	35	42
G1 Control							Dose: 0 mg/kg
26101	135.50	157.50	202.50	235.00	253.00	-	-
26102	140.50	167.00	198.00	227.00	255.00	-	-
26103	142.00	166.00	195.00	223.50	235.00	-	-
26104	155.00	170.50	211.50	224.50	218.00	-	-
26105	154.00	173.00	214.50	232.00	217.50	-	-
26106	172.00	190.00	233.00	249.00	248.00	-	-
G2 Low							Dose: 500 mg/kg
26113	134.50	159.00	173.00	198.00	211.00	-	-
26114	145.00	180.50	203.00	238.00	259.00	-	-
26115	151.00	172.50	189.50	208.50	215.00	-	-
26116	151.50	146.00	194.50	234.00	252.00	-	-
26117	152.00	170.50	186.00	220.00	230.00	-	-
26118	168.00	173.50	213.00	242.00	257.00	-	-
G3 Mid							Dose: 750 mg/kg
26125	135.00	151.00	164.50	182.00	199.00	-	-
26126	140.50	152.00	166.00	183.00	200.00	-	-
26127	146.00	170.50	190.00	207.50	230.00	-	-
26128	156.00	182.50	202.50	221.00	231.50	-	-
26129	159.00	186.00	200.00	217.50	230.00	-	-
26130	164.50	199.00	227.00	247.00	255.50	-	-

APPENDIX – III (Contd.): Individual Animal Body Weight (gm)

Sex: Male

Animal No.	Treatment Day						
	1	8	15	22	28	35	42
G4 High							Dose: 1000 mg/kg
26137	138.00	174.00	209.50	245.00	290.00	-	-
26138	145.50	169.00	199.00	220.50	232.50	-	-
26139	152.50	176.00	203.00	219.00	228.00	-	-
26140	155.00	186.50	194.50	214.00	238.50	-	-
26141	155.00	176.50	197.50	225.00	223.50	-	-
26142	161.50	190.00	205.00	242.50	242.00	-	-
G1R Control Recovery							Dose: 0 mg/kg
26149	139.00	180.00	222.00	229.00	255.00	273.00	291.50
26150	145.00	170.50	188.50	200.00	221.00	234.00	248.00
26151	149.50	174.50	200.00	219.00	251.00	256.00	265.50
26152	152.50	191.00	213.00	232.00	243.50	258.00	271.50
26153	159.00	197.00	216.50	240.00	255.00	266.00	279.00
26154	159.00	200.50	232.00	253.00	253.50	281.00	293.00
G4R High Recovery							Dose: 1000 mg/kg
26161	136.00	155.00	184.00	194.00	214.50	240.00	262.50
26162	143.00	170.50	201.00	209.00	223.50	254.00	266.00
26163	150.50	172.50	201.50	206.50	220.50	247.00	259.00
26164	155.50	170.50	173.00	203.00	204.00	222.00	236.50
26165	161.00	186.00	211.00	232.00	244.50	263.00	281.00
26166	161.50	191.00	199.00	219.00	238.00	262.00	279.50

APPENDIX – III (Contd.): Individual Animal Body Weight (gm)

Sex: Female

Animal No.	Treatment Day							
	1	8	15	22	28		35	42
G1 Control							Dose: 0 mg/kg	
26107	137.50	141.50	160.00	173.00	181.00		-	-
26108	144.00	138.50	156.50	164.50	174.00		-	-
26109	148.50	151.00	169.00	184.00	180.00		-	-
26110	150.50	157.00	185.50	190.50	195.00		-	-
26111	153.00	163.50	169.00	175.00	179.00		-	-
26112	160.00	176.00	187.50	191.00	201.00		-	-
G2 Low							Dose: 500 mg/kg	
26119	141.00	158.00	161.00	175.00	182.00		-	-
26120	146.50	177.50	181.50	205.00	211.50		-	-
26121	152.00	181.00	183.50	198.00	199.50		-	-
26122	153.00	165.00	175.00	182.00	188.00		-	-
26123	153.50	166.00	185.00	197.00	205.00		-	-
26124	163.00	186.50	195.00	209.00	210.00		-	-
G3 Mid							Dose: 750 mg/kg	
26131	141.00	163.00	175.00	190.00	198.00		-	-
26132	143.00	156.00	165.00	171.50	185.00		-	-
26133	152.00	174.00	185.00	191.00	203.00		-	-
26134	152.50	160.50	168.00	179.00	179.00		-	-
26135	154.00	167.00	175.00	181.00	191.50		-	-
26136	162.00	172.50	185.00	189.50	198.00		-	-

APPENDIX – III (Contd.): Individual Animal Body Weight (gm)

Sex: Female

Animal No.	Treatment Day							
	1	8	15	22	28		35	42
G4 High						Dose: 1000 mg/kg		
26143	139.50	151.50	156.50	170.50	180.00	-	-	-
26144	143.00	158.00	163.00	173.00	183.50	-	-	-
26145	149.50	161.00	169.50	180.50	186.50	-	-	-
26146	148.00	160.50	169.00	182.00	185.00	-	-	-
26147	156.50	179.00	185.00	191.50	190.00	-	-	-
26148	161.50	172.50	179.50	187.00	188.00	-	-	-
G1R Control Recovery						Dose: 0 mg/kg		
26155	141.50	152.00	161.50	176.00	185.00	191.50	196.00	
26156	143.50	154.00	166.00	182.50	190.00	198.00	206.00	
26157	152.00	155.50	167.00	183.00	192.50	201.50	208.50	
26158	152.50	163.00	172.00	181.00	171.50	186.50	196.00	
26159	154.50	172.50	181.50	193.00	200.00	206.00	216.50	
26160	157.00	181.00	199.00	204.50	204.50	215.50	224.00	
G4R High Recovery						Dose: 1000 mg/kg		
261567	144.00	165.00	178.00	185.00	190.00	195.50	201.00	
26168	144.50	157.00	162.00	177.50	182.00	189.00	196.50	
26169	152.00	174.50	183.50	188.50	192.00	198.00	204.50	
26170	148.50	160.50	169.50	182.00	187.00	196.00	202.00	
26171	154.00	164.00	169.00	183.50	188.00	199.00	209.00	
26172	157.50	166.00	175.00	188.00	193.00	205.00	216.50	

APPENDIX – IV: Individual Animal Body Weight Gain (gm)

Sex: Male

Animal No.	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
26101	22.00	67.00	99.50	117.50	-	-
26102	26.50	57.50	86.50	114.50	-	-
26103	24.00	53.00	81.50	93.00	-	-
26104	15.50	56.50	69.50	63.00	-	-
26105	19.00	60.50	78.00	63.50	-	-
26106	18.00	61.00	77.00	76.00	-	-
G2 Low						Dose: 500 mg/kg
26113	24.50	38.50	63.50	76.50	-	-
26114	35.50	58.00	93.00	114.00	-	-
26115	21.50	38.50	57.50	64.00	-	-
26116	-5.50	43.00	82.50	100.50	-	-
26117	18.50	34.00	68.00	78.00	-	-
26118	5.50	45.00	74.00	89.00	-	-
G3 Mid						Dose: 750 mg/kg
26125	16.00	29.50	47.00	64.00	-	-
26126	11.50	25.50	42.50	59.50	-	-
26127	24.50	44.00	61.50	84.00	-	-
26128	26.50	46.50	65.00	75.50	-	-
26129	27.00	41.00	58.50	71.00	-	-
26130	34.50	62.50	82.50	91.00	-	-

APPENDIX – IV (Contd.): Individual Animal Body Weight Gain (gm)

Sex: Male

Animal No.	Treatment Day					
	8	15	22	28	35	42
G4 High					Dose: 1000 mg/kg	
26137	36.00	71.50	107.00	152.00	-	-
26138	23.50	53.50	75.00	87.00	-	-
26139	23.50	50.50	66.50	75.50	-	-
26140	31.50	39.50	59.00	83.50	-	-
26141	21.50	42.50	70.00	68.50	-	-
26142	28.50	43.50	81.00	80.50	-	-
G1R Control Recovery					Dose: 0 mg/kg	
26149	41.00	83.00	90.00	116.00	134.00	152.50
26150	25.50	43.50	55.00	76.00	89.00	103.00
26151	25.00	50.50	69.50	101.50	106.50	116.00
26152	38.50	60.50	79.50	91.00	105.50	119.00
26153	38.00	57.50	81.00	96.00	107.00	120.00
26154	41.50	73.00	94.00	94.50	122.00	134.00
G4R High Recovery					Dose: 1000 mg/kg	
26161	19.00	48.00	58.00	78.50	104.00	126.50
26162	27.50	58.00	66.00	80.50	111.00	123.00
26163	22.00	51.00	56.00	70.00	96.50	108.50
26164	15.00	17.50	47.50	48.50	66.50	81.00
26165	25.00	50.00	71.00	83.50	102.00	120.00
26166	29.50	37.50	57.50	76.50	100.50	118.00

APPENDIX – IV (Contd.): Individual Animal Body Weight Gain (gm)

Sex: Female

Animal No.	Treatment Day					
	8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg
26107	4.00	22.50	35.50	43.50	-	-
26108	-5.50	12.50	20.50	30.00	-	-
26109	2.50	20.50	35.50	31.50	-	-
26110	6.50	35.00	40.00	44.50	-	-
26111	10.50	16.00	22.00	26.00	-	-
26112	16.00	27.50	31.00	41.00	-	-
G2 Low						Dose: 500 mg/kg
26119	17.00	20.00	34.00	41.00	-	-
26120	31.00	35.00	58.50	65.00	-	-
26121	29.00	31.50	46.00	47.50	-	-
26122	12.00	22.00	29.00	35.00	-	-
26123	12.50	31.50	43.50	51.50	-	-
26124	23.50	32.00	46.00	47.00	-	-
G3 Mid						Dose: 750 mg/kg
26131	22.00	34.00	49.00	57.00	-	-
26132	13.00	22.00	28.50	42.00	-	-
26133	22.00	33.00	39.00	51.00	-	-
26134	8.00	15.50	26.50	26.50	-	-
26135	13.00	21.00	27.00	37.50	-	-
26136	10.50	23.00	27.50	36.00	-	-

APPENDIX – IV (Contd.): Individual Animal Body Weight Gain (gm)

Sex: Female

Animal No.	Treatment Day					
	8	15	22	28	35	42
G4 High					Dose: 1000 mg/kg	
26143	12.00	17.00	31.00	40.50	-	-
26144	15.00	20.00	30.00	40.50	-	-
26145	11.50	20.00	31.00	37.00	-	-
26146	12.50	21.00	34.00	37.00	-	-
26147	22.50	28.50	35.00	33.50	-	-
26148	11.00	18.00	25.50	26.50	-	-
G1R Control Recovery					Dose: 0 mg/kg	
26155	10.50	20.00	34.50	43.50	50.00	54.50
26156	10.50	22.50	39.00	46.50	54.50	62.50
26157	3.50	15.00	31.00	40.50	49.50	56.50
26158	10.50	19.50	28.50	19.00	34.00	43.50
26159	18.00	27.00	38.50	45.50	51.50	62.00
26160	24.00	42.00	47.50	47.50	58.50	67.00
G4R High Recovery					Dose: 1000 mg/kg	
26167	21.00	34.00	41.00	46.00	51.50	57.00
26168	12.50	17.50	33.00	37.50	44.50	52.00
26169	22.50	31.50	36.50	40.00	46.00	52.50
26170	12.00	21.00	33.50	38.50	47.50	53.50
26171	10.00	15.00	29.50	34.00	45.00	55.00
26172	8.50	17.50	30.50	35.50	47.50	59.00

APPENDIX – V: Individual Animal Feed Consumption (gm/cage)

Sex: Male

Animal No.	Cage No.	Treatment Day					
		8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg	
26101 - 26103	01	96.67	120.33	125.83	105.50	-	-
26104 - 26106	02	112.00	132.83	105.83	123.33	-	-
G2 Low						Dose: 500 mg/kg	
26113 - 26115	05	98.50	121.33	116.00	99.33	-	-
26116 - 26118	06	69.00	111.67	113.33	106.67	-	-
G3 Mid						Dose: 750 mg/kg	
26125 - 26127	09	71.67	78.67	105.33	88.83	-	-
26128 - 26130	10	118.00	131.17	126.83	86.83	-	-
G4 High						Dose: 1000 mg/kg	
26137 - 26139	13	122.33	137.67	143.67	104.00	-	-
26140 - 26142	14	107.33	127.67	126.17	93.50	-	-
G1R Control Recovery						Dose: 0 mg/kg	
26149 - 26151	17	103.67	113.33	99.83	101.83	92.17	96.17
26152 - 26154	18	126.50	115.00	129.33	109.17	93.67	97.83
G4R High Recovery						Dose: 1000 mg/kg	
26161 - 26163	21	93.00	111.50	114.50	97.50	93.67	96.17
26164 - 26166	22	110.67	108.67	127.83	108.00	104.17	104.33

APPENDIX – V (Contd.): Individual Animal Feed Consumption (gm/cage)

Sex: Female

Animal No.	Cage No.	Treatment Day					
		8	15	22	28	35	42
G1 Control						Dose: 0 mg/kg	
26107 - 26109	03	72.67	93.33	82.67	74.33	-	-
26110 - 26112	04	88.33	100.00	93.00	73.33	-	-
G2 Low						Dose: 500 mg/kg	
26119 - 26121	07	98.33	96.83	104.33	87.67	-	-
26122 - 26124	08	93.33	102.17	102.17	77.83	-	-
G3 Mid						Dose: 750 mg/kg	
26131 - 26133	11	88.50	97.00	93.67	84.67	-	-
26134 - 26136	12	91.33	100.33	98.17	78.83	-	-
G4 High						Dose: 1000 mg/kg	
26143 - 26145	15	82.50	81.83	93.67	73.33	-	-
26146 - 26148	16	86.50	79.83	82.17	69.00	-	-
G1R Control Recovery						Dose: 0 mg/kg	
26155 - 26157	19	78.33	91.00	93.50	73.33	51.33	60.17
26158 - 26160	20	87.17	76.50	91.67	72.50	54.67	59.67
G4R High Recovery						Dose: 1000 mg/kg	
26167 - 26169	23	88.67	87.17	103.00	83.50	56.83	60.17
26170 - 26172	24	86.17	81.33	110.17	75.00	81.67	86.50

APPENDIX – VI: Individual Animal Ophthalmoscopic Examination

Sex: Male

Animal No.	Eye	
	Right	Left
G1 Control		Dose: 0 mg/kg
26101	NAD	NAD
26102	NAD	NAD
26103	NAD	NAD
26104	NAD	NAD
26105	NAD	NAD
26106	NAD	NAD
G4 High		Dose: 1000 mg/kg
26137	NAD	NAD
26138	NAD	NAD
26139	NAD	NAD
26140	NAD	NAD
26141	NAD	NAD
26142	NAD	NAD
G1R Control Recovery		Dose: 0 mg/kg
26149	NAD	NAD
26150	NAD	NAD
26151	NAD	NAD
26152	NAD	NAD
26153	NAD	NAD
26154	NAD	NAD
G4R High Recovery		Dose: 1000 mg/kg
26161	NAD	NAD
26162	NAD	NAD
26163	NAD	NAD
26164	NAD	NAD
26165	NAD	NAD
26166	NAD	NAD

Note: NAD = No Abnormality Detected;

APPENDIX – VI (Contd.): Individual Animal Ophthalmoscopic Examination

Sex: Female

Animal No.	Eye	
	Right	Left
G1 Control		Dose: 0 mg/kg
26107	NAD	NAD
26108	NAD	NAD
26109	NAD	NAD
26110	NAD	NAD
26111	NAD	NAD
26112	NAD	NAD
G4 High		Dose: 1000 mg/kg
26143	NAD	NAD
26144	NAD	NAD
26145	NAD	NAD
26146	NAD	NAD
26147	NAD	NAD
26148	NAD	NAD
G1R Control Recovery		Dose: 0 mg/kg
26155	NAD	NAD
26156	NAD	NAD
26157	NAD	NAD
26158	NAD	NAD
26159	NAD	NAD
26160	NAD	NAD
G4R High Recovery		Dose: 1000 mg/kg
26167	NAD	NAD
26168	NAD	NAD
26169	NAD	NAD
26170	NAD	NAD
26171	NAD	NAD
26172	NAD	NAD

Note: NAD = No Abnormality Detected

APPENDIX – VII: Individual Animal Hematology

Sex: Male

Animal No.	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	MCV (fL)	MCH (pg)	MCHC (g/dL)	PLT (10 ³ /μL)	PT (sec)	APTT (sec)	RETICS (%)
G1 Control									Dose: 0 mg/kg		
26101	28.70	7.26	13.70	43.20	59.50	18.90	31.70	538.00	21.61	24.40	1.4
26102	14.70	6.38	11.80	36.10	56.60	18.50	32.70	408.00	20.79	23.70	1.0
26103	16.00	9.36	16.20	53.00	56.60	17.30	30.60	842.00	21.36	26.20	1.2
26104	12.30	6.99	13.20	42.30	60.50	18.90	31.20	826.00	21.45	21.70	1.6
26105	26.30	6.97	13.50	40.90	58.70	19.40	33.00	1145.00	11.71	24.30	1.0
26106	19.40	8.82	15.80	49.50	56.10	17.90	31.90	815.00	13.86	21.60	1.2
G2 Low									Dose: 500 mg/kg		
26113	13.70	7.79	13.90	44.00	56.50	17.80	31.60	1016.00	14.31	33.80	1.2
26114	15.30	7.34	13.80	42.10	57.40	18.80	32.80	927.00	20.27	27.10	1.4
26115	22.80	7.72	13.90	43.50	56.30	18.00	32.00	940.00	14.40	23.50	1.2
26116	21.20	6.26	12.30	37.70	60.20	19.60	32.60	695.00	20.88	19.90	1.6
26117	23.50	6.81	12.40	38.60	56.70	18.20	32.10	906.00	16.61	24.70	1.0
26118	5.50	7.37	13.90	44.10	59.80	18.90	31.50	892.00	16.61	29.60	1.6
G3 Mid									Dose: 750 mg/kg		
26125	24.10	6.99	12.60	39.20	56.10	18.00	32.10	828.00	18.49	22.80	1.0
26126	12.20	6.96	12.10	38.40	55.20	17.40	31.50	832.00	16.79	39.30	1.4
26127	13.40	7.35	13.30	41.80	56.90	18.10	31.80	663.00	17.94	23.40	1.2
26128	8.50	9.04	16.00	51.80	57.30	17.70	30.90	724.00	18.13	24.80	1.0
26129	8.50	9.10	17.00	52.60	57.80	18.70	32.30	772.00	17.28	28.10	1.2
26130	8.00	9.56	17.70	55.90	58.50	18.50	31.70	614.00	17.28	23.00	1.4

APPENDIX – VII (Contd.): Individual Animal Hematology

Sex: Male

Animal No.	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	MCV (fL)	MCH (pg)	MCHC (g/dL)	PLT (10 ³ /μL)	PT (sec)	APTT (sec)	RETICS (%)
G4 High									Dose: 1000 mg/kg		
26137	12.40	7.26	12.40	39.60	54.50	17.10	31.30	1090.00	15.49	22.40	1.2
26138	19.70	6.65	12.80	38.80	58.30	19.20	33.00	988.00	18.97	19.20	1.0
26139	19.30	7.18	13.30	40.50	56.40	18.50	32.80	842.00	17.61	18.30	1.2
26140	20.50	7.11	13.40	41.80	58.80	18.80	32.10	848.00	20.88	19.40	1.2
26141	25.70	7.82	13.90	44.40	56.80	17.80	31.30	927.00	20.88	25.10	1.4
26142	25.20	7.89	13.80	44.80	56.80	17.50	30.80	944.00	17.73	27.80	1.4
G1R Control Recovery									Dose: 0 mg/kg		
26149	29.10	7.40	13.80	43.40	58.60	18.60	31.80	433.00	21.05	34.30	1.6
26150	16.50	6.75	13.00	40.20	59.60	19.30	32.30	775.00	20.30	46.50	1.4
26151	9.60	8.39	14.80	47.90	57.10	17.60	30.90	868.00	18.94	28.50	1.6
26152	10.30	7.81	14.10	44.20	56.60	18.10	31.90	1000.00	19.75	24.20	1.2
26153	16.80	7.67	13.50	43.20	56.30	17.60	31.30	700.00	18.90	30.40	1.2
26154	14.10	6.48	12.10	38.50	59.40	18.70	31.40	898.00	22.00	21.60	1.4
G4R High Recovery									Dose: 1000 mg/kg		
26161	13.70	9.08	15.10	50.10	55.20	16.60	30.10	892.00	21.62	20.50	1.4
26162	17.10	8.14	14.30	45.70	56.10	17.60	31.30	913.00	20.06	20.90	1.4
26163	10.30	8.14	14.20	44.30	54.40	17.40	32.10	948.00	19.92	19.30	1.6
26164	31.50	7.94	13.40	43.40	54.70	16.90	30.90	744.00	22.58	14.60	1.2
26165	19.80	7.62	13.90	43.70	57.30	18.20	31.80	893.00	22.17	15.20	1.2
26166	10.10	7.26	13.70	44.10	60.70	18.90	31.10	866.00	22.78	15.70	1.4

APPENDIX – VII (Contd.): Individual Animal Hematology

Sex: Female

Animal No.	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	MCV (fL)	MCH (pg)	MCHC (g/dL)	PLT (10 ³ /μL)	PT (sec)	APTT (sec)	RETICS (%)
G1 Control									Dose: 0 mg/kg		
26107	9.70	7.30	13.40	41.30	56.60	18.40	32.40	955.00	25.93	21.30	1.2
26108	5.10	7.07	13.50	40.20	56.90	19.10	33.60	1016.00	26.96	26.20	1.6
26109	12.20	7.26	14.10	42.30	58.30	19.40	33.30	881.00	26.99	22.40	1.4
26110	19.70	7.82	13.70	43.90	56.10	17.50	31.20	517.00	21.82	30.10	1.0
26111	7.80	5.35	10.20	31.70	59.30	19.10	32.20	694.00	30.14	18.10	1.4
26112	7.90	5.34	10.20	31.50	59.00	19.10	32.40	669.00	29.17	18.40	1.2
G2 Low									Dose: 500 mg/kg		
26119	13.90	6.79	12.90	38.60	56.80	19.00	33.40	1101.00	28.32	31.20	1.4
26120	11.40	6.54	12.60	37.40	57.20	19.30	33.70	951.00	29.75	24.60	1.2
26121	7.60	7.05	13.70	40.00	56.70	19.40	34.30	840.00	20.43	38.40	1.4
26122	4.80	6.60	13.40	39.60	60.00	20.30	33.80	992.00	22.30	18.80	1.0
26123	8.60	7.10	14.00	42.00	59.20	19.70	33.30	1050.00	16.28	24.50	1.4
26124	12.50	6.80	12.80	38.40	56.50	18.80	33.30	942.00	18.88	24.80	1.2
G3 Mid									Dose: 750 mg/kg		
26131	7.60	6.95	13.20	39.70	57.10	19.00	33.20	841.00	24.93	23.30	1.4
26132	9.30	6.92	13.50	39.10	56.50	19.50	34.50	982.00	21.00	23.20	1.2
26133	5.90	7.27	14.40	42.00	57.80	19.80	34.30	838.00	18.03	24.80	1.4
26134	5.10	6.50	12.90	37.40	57.50	19.80	34.50	943.00	21.09	22.30	1.2
26135	9.80	6.86	13.70	40.10	58.50	20.00	34.20	1052.00	18.07	21.60	1.0
26136	4.50	9.08	17.50	51.00	56.20	19.30	34.30	143.00	21.12	22.20	1.2

APPENDIX – VII (Contd.): Individual Animal Hematology

Sex: Female

Animal No.	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	MCV (fL)	MCH (pg)	MCHC (g/dL)	PLT (10 ³ /μL)	PT (sec)	APTT (sec)	RETICS (%)
G4 High									Dose: 1000 mg/kg		
26143	15.90	7.37	13.70	41.10	55.80	18.60	33.30	931.00	23.00	31.30	1.4
26144	6.00	6.84	13.30	39.30	57.50	19.40	33.80	815.00	21.27	26.70	1.0
26145	7.60	6.92	14.20	41.40	59.80	20.50	34.30	1089.00	15.74	20.80	1.2
26146	6.70	6.64	13.20	38.90	58.60	19.90	33.90	892.00	9.11	22.00	1.4
26147	8.00	6.50	12.90	38.10	58.60	19.80	33.90	821.00	7.41	25.20	1.2
26148	14.00	6.65	12.30	36.70	55.20	18.50	33.50	921.00	9.53	28.70	1.2
G1R Control Recovery									Dose: 0 mg/kg		
26155	9.20	6.60	13.20	40.50	61.40	20.00	32.60	893.00	18.90	15.60	1.6
26156	13.00	6.55	13.80	43.00	65.60	21.10	32.10	943.00	18.84	22.60	1.4
26157	17.70	5.29	9.60	29.70	56.10	18.10	32.30	853.00	20.09	19.80	1.4
26158	9.50	7.16	12.40	37.90	52.90	17.30	32.70	1004.00	18.36	19.10	1.6
26159	12.50	7.55	14.20	42.50	56.30	18.80	33.40	881.00	17.95	19.70	1.2
26160	15.50	7.48	14.30	43.10	57.60	19.10	33.20	1016.00	19.69	21.80	1.2
G4R High Recovery									Dose: 1000 mg/kg		
26167	14.90	7.27	13.30	40.10	55.20	18.30	33.20	869.00	21.32	16.50	1.6
26168	10.70	6.67	13.60	40.10	60.10	20.40	33.90	1055.00	19.28	16.70	1.2
26169	13.40	7.14	14.50	42.60	59.70	20.30	34.00	885.00	20.54	18.50	1.4
26170	12.20	7.55	13.70	41.60	55.10	18.10	32.90	771.00	20.54	16.10	1.2
26171	9.90	7.57	14.10	42.60	56.30	18.60	33.10	966.00	19.07	19.10	1.4
26172	17.80	7.42	13.30	40.60	54.70	17.90	32.80	961.00	20.16	20.00	1.4

APPENDIX – VIII: Individual Animal Differential Leukocyte Count (%)

Sex: Male

Animal No.	Neutrophils	Lymphocytes	Monocytes	Eosinophils	Basophils
G1 Control					Dose: 0 mg/kg
26101	22	75	2	1	0
26102	27	69	1	2	1
26103	27	72	1	0	0
26104	23	74	0	3	0
26105	28	69	1	2	0
26106	20	78	0	1	1
G2 Low					Dose: 500 mg/kg
26113	26	72	0	1	1
26114	30	67	1	2	0
26115	22	74	1	3	0
26116	29	68	1	1	1
26117	27	71	0	2	0
26118	30	68	1	1	0
G3 Mid					Dose: 750 mg/kg
26125	29	68	1	2	0
26126	27	72	0	1	0
26127	20	77	0	3	0
26128	27	69	1	2	1
26129	24	73	0	3	0
26130	30	67	1	2	0

APPENDIX – VIII (Contd.): Individual Animal Differential Leukocyte Count (%)

Sex: Male



APPENDIX – VIII (Contd.): Individual Animal Differential Leukocyte Count (%)

Sex: Female

Animal No.	Neutrophils	Lymphocytes	Monocytes	Eosinophils	Basophils
G1 Control					Dose: 0 mg/kg
26107	21	78	0	1	0
26108	22	75	1	3	0
26109	29	69	1	1	0
26110	26	72	0	0	1
26111	30	69	0	1	0
26112	28	69	1	2	0
G2 Low					Dose: 500 mg/kg
26119	23	74	1	2	0
26120	29	70	0	1	0
26121	27	71	0	2	0
26122	25	74	0	1	0
26123	26	70	1	2	1
26124	29	69	0	2	0
G3 Mid					Dose: 750 mg/kg
26131	26	72	1	1	0
26132	23	74	1	2	0
26133	30	68	0	1	1
26134	29	70	1	0	0
26135	25	75	0	0	0
26136	29	69	0	2	0

APPENDIX – VIII (Contd.): Individual Animal Differential Leukocyte Count (%)

Sex: Female

Animal No.	Neutrophils	Lymphocytes	Monocytes	Eosinophils	Basophils
G4 High					Dose: 1000 mg/kg
26143	28	69	1	2	0
26144	24	73	0	2	1
26145	27	70	1	2	0
26146	27	71	0	2	0
26147	30	67	1	1	1
26148	23	74	1	2	0
G1R Control Recovery					Dose: 0 mg/kg
26155	20	77	2	1	0
26156	18	82	0	0	0
26157	15	82	2	1	0
26158	20	77	2	1	0
26159	21	78	1	0	0
26160	18	80	1	1	0
G4R High Recovery					Dose: 1000 mg/kg
26167	21	77	2	0	0
26168	17	81	1	1	0
26169	22	76	1	1	0
26170	19	78	2	1	0
26171	24	76	0	0	0
26172	18	80	1	1	0

APPENDIX – IX: Individual Animal Clinical Chemistry

Sex: Male

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
G1 Control										
Dose: 0 mg/kg										
26101	121.60	137.90	51.80	24.00	0.69	72.80	85.00	2.48	6.02	2.43
26102	110.00	96.60	51.10	24.00	0.65	76.70	86.00	2.53	5.65	2.23
26103	69.60	78.10	45.10	21.00	0.68	89.10	26.00	1.75	4.75	2.71
26104	107.70	102.80	38.70	18.00	0.40	65.60	60.00	1.99	4.93	2.48
26105	97.90	161.30	31.00	14.00	1.22	50.90	100.00	1.61	4.65	2.89
26106	79.40	79.50	20.40	10.00	0.31	35.50	68.00	1.06	3.95	3.73
G2 Low										
Dose: 500 mg/kg										
26113	114.70	129.00	34.10	16.00	0.80	62.20	79.00	2.38	5.50	2.31
26114	132.00	173.70	43.60	20.00	0.96	63.50	84.00	2.30	5.47	2.38
26115	173.00	247.30	46.60	22.00	0.58	73.80	67.00	2.47	5.51	2.23
26116	114.70	157.20	38.20	18.00	0.37	51.90	92.00	1.83	5.00	2.73
26117	91.00	104.20	29.80	14.00	0.65	35.30	83.00	1.17	4.41	3.77
26118	111.20	115.20	27.00	13.00	0.67	27.00	39.00	1.14	3.99	3.50

APPENDIX – IX (Contd.): Individual Animal Clinical Chemistry

Sex: Male

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
G3 Mid										
26125	147.60	135.90	42.30	20.00	0.91	63.00	73.00	2.06	5.03	2.44
26126	153.40	151.70	43.10	20.00	0.63	57.30	65.00	2.04	4.70	2.30
26127	83.50	117.30	42.80	20.00	1.46	71.60	63.00	2.03	5.26	2.59
26128	155.70	199.10	56.00	26.00	1.30	47.50	71.00	1.53	5.42	3.54
26129	171.30	243.90	26.80	13.00	0.54	29.40	68.00	1.39	4.10	2.95
26130	137.20	166.10	24.40	11.00	0.81	26.10	57.00	1.01	3.76	3.72
G4 High										
26137	102.50	115.90	32.70	15.00	0.74	79.00	67.00	2.40	5.04	2.10
26138	133.10	155.10	35.30	16.00	0.63	59.40	75.00	2.16	5.32	2.46
26139	81.20	107.00	32.90	15.00	0.23	71.80	68.00	2.22	5.06	2.28
26140	97.90	112.50	19.50	9.00	0.98	58.50	43.00	1.26	5.58	4.43
26141	63.80	157.20	25.60	12.00	1.13	48.40	26.00	1.02	3.73	3.66
26142	140.10	190.20	35.80	17.00	0.86	43.40	25.00	1.37	4.20	3.07

APPENDIX – IX (Contd.): Individual Animal Clinical Chemistry

Sex: Male

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
Dose: 0 mg/kg										
GIR Control Recovery										
26149	117.00	149.60	131.10	61.00	0.83	91.40	82.00	1.81	5.91	3.27
26150	107.60	105.60	44.80	21.00	0.96	92.90	68.00	1.63	6.67	4.09
26151	78.80	126.30	36.00	17.00	0.65	40.20	75.00	1.36	7.01	5.15
26152	110.10	114.30	35.10	16.00	0.81	45.20	78.00	0.67	6.67	9.96
26153	137.60	137.70	40.20	19.00	0.80	47.30	78.00	0.66	5.73	8.68
26154	100.70	76.80	30.90	14.00	0.95	52.40	53.00	0.96	5.58	5.81
Dose: 1000 mg/kg										
G4R High Recovery										
26161	120.10	214.80	202.60	95.00	1.01	136.20	70.00	2.01	6.53	3.25
26162	87.60	107.80	35.50	17.00	0.41	86.80	69.00	1.53	6.68	4.37
26163	101.30	85.50	18.90	9.00	0.83	59.10	62.00	0.72	6.29	8.74
26164	86.90	116.50	26.30	12.00	0.92	36.70	54.00	1.02	6.04	5.92
26165	83.20	157.80	69.70	33.00	0.83	36.10	62.00	1.12	5.84	5.21
26166	117.60	110.50	50.30	23.00	0.97	44.10	65.00	0.82	5.52	6.73

APPENDIX – IX (Contd.): Individual Animal Clinical Chemistry

Sex: Female

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
Dose: 0 mg/kg										
G1 Control										
26107	92.70	102.20	31.30	15.00	0.61	43.80	35.00	1.24	4.35	3.51
26108	71.30	133.10	22.20	10.00	0.61	51.60	49.00	0.92	3.54	3.85
26109	77.70	93.90	18.20	8.00	0.55	21.40	84.00	0.85	4.19	4.93
26110	61.50	86.30	10.20	5.00	0.50	39.40	66.00	1.11	4.18	3.77
26111	55.20	67.10	13.30	6.00	0.81	18.60	67.00	0.47	3.58	7.62
26112	84.00	91.80	12.70	6.00	0.64	33.50	63.00	0.62	3.89	6.27
Dose: 500 mg/kg										
G2 Low										
26119	86.40	81.50	24.60	11.00	0.57	56.10	87.00	1.54	4.27	2.77
26120	87.50	114.50	17.10	8.00	0.92	43.20	77.00	1.07	3.62	3.38
26121	103.10	115.20	15.50	7.00	0.66	24.40	79.00	0.92	4.17	4.53
26122	45.90	69.10	12.10	6.00	0.69	26.30	60.00	0.63	3.57	5.67
26123	54.00	115.20	9.60	4.00	0.43	17.80	71.00	0.72	3.91	5.43
26124	72.50	109.70	11.00	5.00	0.63	20.20	58.00	0.59	4.17	7.07

APPENDIX – IX (Contd.): Individual Animal Clinical Chemistry

Sex: Female

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
Dose: 750 mg/kg										
G3 Mid										
26131	94.40	91.80	20.00	9.00	0.91	42.50	77.00	1.46	4.06	2.78
26132	97.90	116.60	19.30	9.00	1.08	29.70	71.00	0.82	4.38	5.34
26133	81.70	97.30	10.60	5.00	0.56	28.60	96.00	0.51	3.75	7.35
26134	79.40	86.30	11.00	5.00	0.80	22.60	61.00	0.59	3.63	6.15
26135	70.20	71.90	7.50	4.00	0.56	17.00	81.00	0.64	3.90	6.09
26136	90.40	123.50	8.50	4.00	0.68	22.20	61.00	0.52	4.08	7.85
G4 High										
Dose: 1000 mg/kg										
26143	203.00	257.60	21.40	10.00	0.83	66.50	58.00	1.13	3.72	3.29
26144	107.20	125.50	20.10	9.00	0.71	32.00	86.00	1.18	4.18	3.54
26145	154.50	342.20	32.70	15.00	1.00	58.30	39.00	0.97	3.16	3.26
26146	95.60	153.70	11.30	5.00	0.35	23.00	25.00	0.45	3.59	7.98
26147	61.50	89.10	11.10	5.00	1.29	19.70	54.00	0.57	4.40	7.72
26148	37.30	87.00	10.70	5.00	0.74	23.70	61.00	0.46	3.40	7.39

APPENDIX – IX (Contd.): Individual Animal Clinical Chemistry

Sex: Female

Animal No.	GPT	GOT	BUL	BUN	CREAT	GLU	CHOLE	ALB	PRO	PAR
	U/L	U/L	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	mg/dl	g/dl	-
GIR Control Recovery										
26155	78.80	85.00	26.30	12.00	0.83	32.70	80.00	0.79	6.03	7.63
26156	81.90	94.80	53.10	25.00	0.82	27.50	72.00	0.74	5.92	8.00
26157	102.00	88.30	60.00	28.00	0.72	9.30	47.00	0.64	4.71	7.36
26158	78.80	80.10	112.20	52.00	0.62	31.10	58.00	0.47	5.49	11.68
26159	75.10	117.00	98.30	46.00	0.63	36.20	71.00	0.73	6.35	8.70
26160	92.60	123.00	101.50	47.00	0.97	27.20	79.00	1.26	6.69	5.31
G4R High Recovery										
26167	86.30	112.70	39.70	19.00	0.79	32.60	87.00	0.92	6.37	6.92
26168	100.70	88.30	106.60	50.00	0.72	46.20	71.00	0.68	5.81	8.54
26169	94.50	94.20	121.40	57.00	0.57	25.00	98.00	0.75	5.84	7.79
26170	112.00	127.40	104.80	49.00	0.84	26.50	88.00	0.73	6.14	8.41
26171	103.20	91.00	25.80	12.00	0.91	29.40	80.00	0.96	6.06	6.31
26172	95.70	116.50	83.10	39.00	0.79	30.40	56.00	0.98	6.70	6.84

APPENDIX – X: Individual Animal Qualitative Urinalysis

Sex: Male

Animal No.	Color	Turbidity	Bilirubin	Glucose	Protein	pH	Specific Gravity
G1 Control							
26101	Yellow	clear	Neg	Neg	Neg	9.0	Dose: 0 mg/kg 1.005
26102	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26103	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26104	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26105	Yellow	clear	Neg	Neg	Neg	9.0	1.010
26106	Yellow	clear	Neg	Neg	Neg	9.0	1.005
G2 Low							
26113	Yellow	clear	Neg	Neg	Neg	8.0	Dose: 500 mg/kg 1.005
26114	Yellow	clear	Neg	Neg	Neg	6.0	1.005
26115	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26116	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26117	Yellow	clear	Neg	Neg	Neg	7.0	1.015
26118	Yellow	clear	Neg	Neg	Neg	6.5	1.020
G3 Mid							
26125	Yellow	clear	Neg	Neg	Neg	8.0	Dose: 750 mg/kg 1.005
26126	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26127	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26128	Yellow	clear	Neg	Neg	Neg	8.0	1.010
26129	Yellow	clear	Neg	Neg	Neg	6.5	1.030
26130	Yellow	clear	Neg	Neg	Neg	6.0	1.030

APPENDIX – X (Contd.): Individual Animal Qualitative Urinalysis

Sex: Male

Animal No.	Color	Turbidity	Bilirubin	Bilirubin	Glucose	Protein	pH	Specific Gravity
G4 High								
26137	Yellow	clear	Neg	Neg	Neg	Neg	9.0	1.005
26138	Yellow	clear	Neg	Neg	Neg	Neg	9.0	1.005
26139	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26140	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26141	Yellow	clear	Neg	Neg	Neg	Neg	7.0	1.005
26142	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.015
G1R Control Recovery								
Dose: 0 mg/kg								
26149	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26150	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26151	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26152	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26153	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.025
26154	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.000
G4R High Recovery								
Dose: 1000 mg/kg								
26161	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26162	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26163	Yellow	clear	Neg	Neg	Neg	Neg	5.0	1.000
26164	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26165	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26166	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030

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APPENDIX – X (Contd.): Individual Animal Qualitative Urinalysis

Sex: Female

Animal No.	Color	Turbidity	Bilirubin	Glucose	Protein	pH	Specific Gravity
G1 Control							
26107	Yellow	clear	Neg	Neg	Neg	9.0	Dose: 0 mg/kg 1.005
26108	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26109	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26110	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26111	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26112	Yellow	clear	Neg	Neg	Neg	8.0	1.005
G2 Low							
26119	Yellow	clear	Neg	Neg	Neg	8.0	Dose: 500 mg/kg 1.005
26120	Yellow	clear	Neg	Neg	Neg	9.0	1.005
26121	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26122	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26123	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26124	Yellow	clear	Neg	Neg	Neg	9.0	1.005
G3 Mid							
26131	Yellow	clear	Neg	Neg	Neg	9.0	Dose: 750 mg/kg 1.005
26132	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26133	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26134	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26135	Yellow	clear	Neg	Neg	Neg	8.0	1.005
26136	Yellow	clear	Neg	Neg	Neg	5.0	1.000

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APPENDIX – X (Contd.): Individual Animal Qualitative Urinalysis

Sex: Female

Animal No.	Color	Turbidity	Bilirubin	Bilirubin	Glucose	Protein	pH	Specific Gravity
Dose: 1000 mg/kg								
G4 High								
26143	Yellow	clear	Neg	Neg	Neg	Neg	8.0	1.005
26144	Yellow	clear	Neg	Neg	Neg	Neg	9.0	1.005
26145	Yellow	clear	Neg	Neg	Neg	Neg	8.0	1.010
26146	Yellow	clear	Neg	Neg	Neg	Neg	5.0	1.000
26147	Yellow	clear	Neg	Neg	Neg	Neg	5.0	1.000
26148	Yellow	clear	Neg	Neg	Neg	Neg	9.0	1.005
G1R Control Recovery								
Dose: 0 mg/kg								
26155	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26156	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.025
26157	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26158	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.030
26159	Yellow	clear	Neg	Neg	Neg	Neg	6.0	1.010
26160	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
G4R High Recovery								
Dose: 1000 mg/kg								
26167	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26168	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.025
26169	Yellow	clear	Neg	Neg	Neg	30	6.5	1.030
26170	Yellow	clear	Neg	Neg	Neg	Neg	5.0	1.000
26171	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.030
26172	Yellow	clear	Neg	Neg	Neg	Neg	6.5	1.020

For Restricted Circulation Only

APPENDIX – XI: Individual Animal Microscopic Urinalysis

Sex: Male

Animal No.	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G1 Control					Dose: 0 mg/kg
26101	0	0	0	0	0
26102	0	0	0	0	0
26103	0	0	0	0	0
26104	0	0	0	0	0
26105	0	0	0	0	0
26106	0	0	0	0	0
G2 Low					Dose: 500 mg/kg
26113	0	0	0	0	0
26114	0	0	0	0	0
26115	0	0	0	1	0
26116	0	0	0	0	1
26117	0	0	0	0	0
26118	0	0	0	0	0
G3 Mid					Dose: 750 mg/kg
26125	0	0	0	0	1
26126	0	0	0	0	0
26127	0	0	0	0	0
26128	0	0	0	0	0
26129	0	0	0	0	0
26130	0	0	0	0	0

APPENDIX – XI (Contd.): Individual Animal Microscopic Urinalysis

Sex: Male

Animal No.	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G4 High					Dose: 1000 mg/kg
26137	0	0	0	1	0
26138	0	0	0	0	0
26139	0	0	0	0	0
26140	0	0	0	1	0
26141	0	0	0	0	0
26142	0	0	0	0	1
G1R Control Recovery					Dose: 0 mg/kg
26149	0	0	0	1	0
26150	0	0	0	0	0
26151	0	0	0	0	0
26152	0	0	0	1	0
26153	0	0	0	0	0
26154	0	0	1	0	0
G4R High Recovery					Dose: 1000 mg/kg
26161	0	0	0	0	1
26162	0	0	0	0	0
26163	0	0	0	0	0
26164	0	0	1	0	1
26165	0	0	0	0	0
26166	0	0	0	1	0

APPENDIX – XI (Contd.): Individual Animal Microscopic Urinalysis

Sex: Female

Animal No.	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G1 Control					Dose: 0 mg/kg
26107	0	0	0	0	0
26108	0	0	0	0	0
26109	0	0	0	0	0
26110	0	0	0	0	1
26111	0	0	0	0	0
26112	0	0	0	0	0
G2 Low					Dose: 500 mg/kg
26119	0	0	0	0	0
26120	0	0	0	0	1
26121	0	0	0	0	0
26122	0	0	0	0	0
26123	0	0	0	0	0
26124	0	0	0	1	0
G3 Mid					Dose: 750 mg/kg
26131	0	0	0	0	0
26132	0	0	0	0	0
26133	0	0	0	0	0
26134	0	0	0	0	0
26135	0	0	0	0	0
26136	0	0	0	0	1

APPENDIX – XI (Contd.): Individual Animal Microscopic Urinalysis

Sex: Female

Animal No.	Microscopic				
	Pus Cells	Erythrocytes	Epithelial cells	Crystals	Casts
G4 High					Dose: 1000 mg/kg
26143	0	0	0	0	0
26144	0	0	0	1	1
26145	0	0	0	0	0
26146	0	0	0	0	0
26147	0	0	0	0	0
26148	0	0	0	1	0
G1R Control Recovery					Dose: 0 mg/kg
26155	0	0	0	0	0
26156	0	0	0	0	0
26157	0	0	0	1	0
26158	0	0	1	0	0
26159	0	0	0	0	0
26160	0	0	0	0	0
G4R High Recovery					Dose: 1000 mg/kg
26167	0	0	1	0	1
26168	0	0	0	0	0
26169	0	0	0	1	0
26170	0	0	0	0	0
26171	0	0	0	0	1
26172	0	0	0	0	0

APPENDIX – XII: Individual Animal Gross Pathology Findings

Sex: Male

Animal No.	Organ	Observations	
		External	Internal
G1 Control		Dose: 0 mg/kg	
26101	-	NAD	NAD
26102	-	NAD	NAD
26103	-	NAD	NAD
26104	-	NAD	NAD
26105	-	NAD	NAD
26106	-	NAD	NAD
G2 Low		Dose: 500 mg/kg	
26113	-	NAD	NAD
26114	-	NAD	NAD
26115	-	NAD	NAD
26116	-	NAD	NAD
26117	-	NAD	NAD
26118	-	NAD	NAD
G3 Mid		Dose: 750 mg/kg	
26125	-	NAD	NAD
26126	-	NAD	NAD
26127	-	NAD	NAD
26128	-	NAD	NAD
26129	Stomach, Testes	NAD	Stomach- Minimal focal hemorrhages on stomach, Testes – Minimal reduction in size of right testes
26130	-	NAD	NAD

APPENDIX - XII (Contd.): Individual Animal Gross Pathology Findings

Sex: Male

Animal No.	Organ	Observations	
		External	Internal
G4 High		Dose: 1000 mg/kg	
26137	-	NAD	NAD
26138	-	NAD	NAD
26139	-	NAD	NAD
26140	-	NAD	NAD
26141	-	NAD	NAD
26142	Testes	NAD	Minimal reduction in size of right testes
G1R Control Recovery		Dose: 0 mg/kg	
26149	-	NAD	NAD
26150	-	NAD	NAD
26151	-	NAD	NAD
26152	-	NAD	NAD
26153	-	NAD	NAD
26154	-	NAD	NAD
G4R High Recovery		Dose: 1000 mg/kg	
26161	-	NAD	NAD
26162	-	NAD	NAD
26163	-	NAD	NAD
26164	-	NAD	NAD
26165	-	NAD	NAD
26166	-	NAD	NAD

APPENDIX – XII (Contd.): Individual Animal Gross Pathology Findings

Sex: Female

Animal No.	Organ	Observations		
		External		Internal
G1 Control				Dose: 0 mg/kg
26107	-	NAD		NAD
26108	-	NAD		NAD
26109	-	NAD		NAD
26110	-	NAD		NAD
26111	-	NAD		NAD
26112	-	NAD		NAD
G2 Low				Dose: 500 mg/kg
26119	-	NAD		NAD
26120	-	NAD		NAD
26121	-	NAD		NAD
26122	-	NAD		NAD
26123	-	NAD		NAD
26124	-	NAD		NAD
G3 Mid				Dose: 750 mg/kg
26131	-	NAD		NAD
26132	-	NAD		NAD
26133	-	NAD		NAD
26134	-	NAD		NAD
26135	-	NAD		NAD
26136	-	NAD		NAD

APPENDIX – XII (Contd.): Individual Animal Gross Pathology Findings

Sex: Female

Animal No.	Organ	Observations		
		External	Internal	
G4 High			Dose: 1000 mg/kg	
26143	-	NAD		NAD
26144	-	NAD		NAD
26145	-	NAD		NAD
26146	-	NAD		NAD
26147	-	NAD		NAD
26148	-	NAD		NAD
G1R Control Recovery			Dose: 0 mg/kg	
26155	-	NAD		NAD
26156	-	NAD		NAD
26157	-	NAD		NAD
26158	-	NAD		NAD
26159	-	NAD		NAD
26160	-	NAD		NAD
G4R High Recovery			Dose: 1000 mg/kg	
26167	-	NAD		NAD
26168	-	NAD		NAD
26169	-	NAD		NAD
26170	-	NAD		NAD
26171	-	NAD		NAD
26172	-	NAD		NAD

APPENDIX – XIII: Individual Animal Absolute Organ Weight (gm)

Sex: Male

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G1 Control							Dose: 0 mg/kg	
26101	9.589	0.980	0.708	0.175	1.981	0.027	2.503	1.885
26102	6.429	0.601	0.517	0.141	1.428	0.030	2.216	1.621
26103	7.621	0.610	0.672	0.112	1.582	0.021	2.213	1.239
26104	8.048	0.580	0.653	0.213	1.512	0.031	2.043	1.317
26105	7.875	0.584	0.731	0.141	1.599	0.030	2.851	1.722
26106	9.207	0.732	0.787	0.199	1.730	0.022	2.207	1.716
G2 Low							Dose: 500 mg/kg	
26113	8.706	0.539	1.030	0.292	1.799	0.027	1.845	1.631
26114	6.249	0.389	0.575	0.153	1.265	0.028	0.394	1.579
26115	7.045	0.688	0.590	0.157	1.445	0.025	2.131	1.292
26116	10.704	1.181	0.843	0.257	1.927	0.037	2.333	1.809
26117	8.201	0.895	0.693	0.267	1.646	0.029	2.158	1.156
26118	9.293	0.468	0.735	0.105	1.702	0.025	2.543	1.600
G3 Mid							Dose: 750 mg/kg	
26125	7.412	0.737	0.582	0.116	1.302	0.021	2.198	1.495
26126	5.040	0.322	0.702	0.058	1.493	0.023	2.001	1.775
26127	8.044	0.754	0.695	0.119	1.674	0.033	2.846	1.143
26128	8.986	0.525	0.679	0.223	1.833	0.032	2.188	1.636
26129	4.881	0.306	0.611	0.096	1.260	0.025	2.151	1.662
26130	6.070	0.417	0.619	0.098	1.740	0.034	2.216	1.544

APPENDIX – XIII (Contd.): Individual Animal Absolute Organ Weight (gm)

Sex: Male

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G4 High							Dose: 1000 mg/kg	
26137	10.755	0.663	0.932	0.183	2.119	0.024	2.859	1.344
26138	7.485	0.568	0.731	0.145	1.670	0.038	2.340	1.650
26139	7.369	0.462	0.634	0.146	1.667	0.030	1.987	1.587
26140	9.104	0.607	0.802	0.234	1.510	0.038	1.573	1.291
26141	7.526	0.660	0.770	0.174	1.579	0.035	1.137	1.602
26142	7.476	0.627	0.729	0.216	1.596	0.036	1.019	1.685
G1R Control Recovery							Dose: 0 mg/kg	
26149	10.644	0.713	0.874	0.231	1.782	0.030	2.656	1.241
26150	7.106	0.701	0.622	0.206	1.573	0.033	1.549	1.761
26151	7.392	0.345	0.728	0.099	1.656	0.031	0.883	1.672
26152	9.109	0.559	0.790	0.099	1.807	0.027	2.534	1.779
26153	9.793	0.635	0.913	0.187	2.151	0.034	2.145	1.698
26154	10.303	0.615	0.947	0.221	2.000	0.036	2.084	1.648
G4R High Recovery							Dose: 1000 mg/kg	
26161	9.041	0.637	0.845	0.119	1.703	0.031	2.249	1.702
26162	8.730	0.552	0.878	0.201	1.871	0.032	2.518	1.730
26163	8.114	0.411	0.938	0.150	1.568	0.039	0.892	1.564
26164	7.545	0.922	0.838	0.257	1.678	0.035	2.452	1.699
26165	9.087	0.893	1.787	0.158	1.754	0.036	2.521	1.512
26166	11.197	0.549	0.940	0.194	2.062	0.038	2.875	1.666

APPENDIX – XIII (Contd.): Individual Animal Absolute Organ Weight (gm)

Sex: Female

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Ovaries	Brain
G1 Control							Dose: 0 mg/kg	
26107	6.088	0.582	0.590	0.105	1.315	0.033	0.093	1.633
26108	4.547	0.341	0.586	0.154	0.974	0.037	0.062	1.478
26109	6.402	0.580	0.621	0.192	1.211	0.038	0.068	1.560
26110	6.962	0.515	0.648	0.172	1.251	0.049	0.094	1.635
26111	6.577	0.450	0.659	0.228	1.259	0.048	0.089	1.660
26112	7.052	0.534	0.699	0.187	1.372	0.053	0.097	1.579
G2 Low							Dose: 500 mg/kg	
26119	5.653	0.423	0.577	0.156	1.066	0.037	0.065	1.560
26120	5.497	0.446	0.671	0.148	1.135	0.047	0.098	1.752
26121	6.732	0.569	0.667	0.129	1.253	0.038	0.074	1.689
26122	5.919	0.413	0.643	0.198	1.082	0.036	0.093	1.677
26123	7.385	0.577	0.697	0.252	1.513	0.046	0.075	1.799
26124	7.275	0.733	0.756	0.263	1.407	0.052	0.079	1.662
G3 Mid							Dose: 750 mg/kg	
26131	6.452	0.474	0.652	0.126	1.311	0.060	0.083	1.651
26132	5.376	0.479	0.608	0.168	1.317	0.048	0.092	1.727
26133	6.348	0.612	0.629	0.151	1.202	0.055	0.087	1.722
26134	5.817	0.444	0.633	0.166	1.152	0.038	0.084	1.772
26135	6.721	0.426	0.672	0.169	1.223	0.050	0.083	1.706
26136	5.539	0.496	0.525	0.201	1.243	0.042	0.088	1.700

APPENDIX – XIII (Contd.): Individual Animal Absolute Organ Weight (gm)

Sex: Female

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Ovaries	Brain
G4 High							Dose: 1000 mg/kg	
26143	4.890	0.355	0.630	0.178	1.159	0.036	0.069	1.542
26144	5.200	0.325	0.544	0.181	1.063	0.039	0.080	1.609
26145	6.212	0.370	0.589	0.173	1.274	0.033	0.086	1.583
26146	6.961	0.430	0.618	0.137	1.160	0.052	0.088	1.509
26147	6.376	0.406	0.608	0.145	1.315	0.037	0.068	1.582
26148	6.915	0.501	0.636	0.189	1.263	0.042	0.075	1.653
G1R Control Recovery							Dose: 0 mg/kg	
26155	5.822	0.763	0.625	0.354	1.266	0.046	0.091	1.578
26156	7.264	0.657	0.611	0.102	1.438	0.041	0.072	1.676
26157	6.901	0.391	0.651	0.134	1.403	0.048	0.069	1.610
26158	5.446	0.538	0.603	0.124	1.153	0.047	0.084	1.593
26159	6.912	0.398	0.784	0.199	1.370	0.054	0.070	1.619
26160	7.550	0.711	0.828	0.131	1.531	0.056	0.095	1.791
G4R High Recovery							Dose: 1000 mg/kg	
26167	6.928	0.554	0.751	0.378	1.707	0.050	0.052	1.698
26168	5.680	0.439	0.658	0.123	1.188	0.039	0.051	1.374
26169	6.582	0.694	0.706	0.165	1.331	0.029	0.091	1.225
26170	5.771	0.505	0.555	0.108	1.242	0.029	0.039	1.574
26171	6.243	0.694	0.664	0.174	1.235	0.039	0.058	1.593
26172	6.268	0.625	0.666	0.216	1.172	0.045	0.038	1.636

APPENDIX – XIV: Individual Animal Organ Weight Relative to Terminal Body Weight (gm)

Sex: Male

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G1 Control							Dose: 0 mg/kg	
26101	3.851	0.394	0.284	0.070	0.796	0.011	1.005	0.757
26102	2.546	0.238	0.205	0.056	0.566	0.012	0.878	0.642
26103	3.402	0.272	0.300	0.050	0.706	0.009	0.988	0.553
26104	3.926	0.283	0.319	0.104	0.738	0.015	0.997	0.642
26105	3.870	0.287	0.359	0.069	0.786	0.015	1.401	0.846
26106	3.885	0.309	0.332	0.084	0.730	0.009	0.931	0.724
G2 Low							Dose: 500 mg/kg	
26113	4.331	0.268	0.512	0.145	0.895	0.013	0.918	0.811
26114	2.520	0.157	0.232	0.062	0.510	0.011	0.159	0.637
26115	3.470	0.339	0.291	0.077	0.712	0.012	1.050	0.636
26116	4.451	0.491	0.351	0.107	0.801	0.015	0.970	0.752
26117	3.745	0.409	0.316	0.122	0.752	0.013	0.985	0.528
26118	3.801	0.191	0.301	0.043	0.696	0.010	1.040	0.654
G3 Mid							Dose: 750 mg/kg	
26125	3.901	0.388	0.306	0.061	0.685	0.011	1.157	0.787
26126	2.660	0.170	0.370	0.031	0.788	0.012	1.056	0.937
26127	3.707	0.347	0.320	0.055	0.771	0.015	1.312	0.527
26128	4.085	0.239	0.309	0.101	0.833	0.015	0.995	0.744
26129	2.260	0.142	0.283	0.044	0.583	0.012	0.996	0.769
26130	2.545	0.175	0.260	0.041	0.730	0.014	0.929	0.647

APPENDIX – XIV (Contd.): Individual Animal Organ Weight Relative to Terminal Body Weight (gm)

Sex: Male

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Testes	Brain
G4 High							Dose: 1000 mg/kg	
26137	3.869	0.238	0.335	0.066	0.762	0.009	1.028	0.483
26138	3.387	0.257	0.331	0.066	0.756	0.017	1.059	0.747
26139	3.365	0.211	0.289	0.067	0.761	0.014	0.907	0.725
26140	4.028	0.269	0.355	0.104	0.668	0.017	0.696	0.571
26141	3.558	0.312	0.364	0.082	0.747	0.017	0.538	0.757
26142	3.209	0.269	0.313	0.093	0.685	0.015	0.437	0.723
G1R Control Recovery							Dose: 0 mg/kg	
26149	3.795	0.254	0.312	0.082	0.635	0.011	0.947	0.442
26150	3.011	0.297	0.264	0.087	0.667	0.014	0.656	0.746
26151	2.945	0.137	0.290	0.039	0.660	0.012	0.352	0.666
26152	3.450	0.212	0.299	0.038	0.684	0.010	0.960	0.674
26153	3.709	0.241	0.346	0.071	0.815	0.013	0.813	0.643
26154	3.621	0.216	0.333	0.078	0.703	0.013	0.733	0.579
G4R High Recovery							Dose: 1000 mg/kg	
26161	3.631	0.256	0.339	0.048	0.684	0.012	0.903	0.684
26162	3.451	0.218	0.347	0.079	0.740	0.013	0.995	0.684
26163	3.319	0.168	0.384	0.061	0.641	0.016	0.365	0.640
26164	3.295	0.403	0.366	0.112	0.733	0.015	1.071	0.742
26165	3.378	0.332	0.664	0.059	0.652	0.013	0.937	0.562
26166	4.132	0.203	0.347	0.072	0.761	0.014	1.061	0.615

APPENDIX – XIV (Contd.): Individual Animal Organ Weight Relative to Terminal Body Weight (gm)

Sex: Female

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Ovaries	Brain
G1 Control							Dose: 0 mg/kg	
26107	3.571	0.341	0.346	0.062	0.771	0.019	0.055	0.958
26108	2.773	0.208	0.357	0.094	0.594	0.023	0.038	0.901
26109	3.952	0.358	0.383	0.119	0.748	0.023	0.042	0.963
26110	3.743	0.277	0.348	0.092	0.673	0.026	0.051	0.879
26111	3.915	0.268	0.392	0.136	0.749	0.029	0.053	0.988
26112	3.692	0.280	0.366	0.098	0.718	0.028	0.051	0.827
G2 Low							Dose: 500 mg/kg	
26119	3.325	0.249	0.339	0.092	0.627	0.022	0.038	0.918
26120	2.755	0.224	0.336	0.074	0.569	0.024	0.049	0.878
26121	3.590	0.303	0.356	0.069	0.668	0.020	0.039	0.901
26122	3.382	0.236	0.367	0.113	0.618	0.021	0.053	0.958
26123	3.807	0.297	0.359	0.130	0.780	0.024	0.039	0.927
26124	3.665	0.369	0.381	0.132	0.709	0.026	0.040	0.837
G3 Mid							Dose: 750 mg/kg	
26131	3.460	0.254	0.350	0.068	0.703	0.032	0.045	0.885
26132	3.081	0.274	0.348	0.096	0.755	0.028	0.053	0.990
26133	3.306	0.319	0.328	0.079	0.626	0.029	0.045	0.897
26134	3.473	0.265	0.378	0.099	0.688	0.023	0.050	1.058
26135	3.673	0.233	0.367	0.092	0.668	0.027	0.045	0.932
26136	2.938	0.263	0.279	0.107	0.659	0.022	0.047	0.902

APPENDIX – XIV (Contd.): Individual Animal Organ Weight Relative to Terminal Body Weight (gm)

Sex: Female

Animal No.	Liver	Spleen	Heart	Thymus	Kidneys	Adrenals	Ovaries	Brain
G4 High						Dose: 1000 mg/kg		
26143	2.868	0.208	0.370	0.104	0.680	0.021	0.040	0.904
26144	3.041	0.190	0.318	0.106	0.622	0.023	0.047	0.941
26145	3.540	0.211	0.336	0.099	0.726	0.019	0.049	0.902
26146	4.001	0.247	0.355	0.079	0.667	0.030	0.051	0.867
26147	3.582	0.228	0.342	0.081	0.739	0.021	0.038	0.889
26148	3.831	0.278	0.352	0.105	0.700	0.023	0.042	0.916
G1R Control Recovery						Dose: 0 mg/kg		
26155	3.105	0.407	0.333	0.189	0.675	0.025	0.049	0.842
26156	3.725	0.337	0.313	0.052	0.737	0.021	0.037	0.859
26157	3.451	0.196	0.326	0.067	0.702	0.024	0.035	0.805
26158	2.968	0.293	0.329	0.068	0.628	0.026	0.046	0.868
26159	3.372	0.194	0.382	0.097	0.668	0.026	0.034	0.790
26160	3.570	0.336	0.391	0.062	0.724	0.026	0.045	0.847
G4R High Recovery						Dose: 1000 mg/kg		
26167	3.571	0.286	0.387	0.195	0.880	0.026	0.027	0.875
26168	3.013	0.233	0.349	0.065	0.630	0.021	0.027	0.729
26169	3.419	0.361	0.367	0.086	0.691	0.015	0.047	0.636
26170	2.967	0.260	0.285	0.056	0.639	0.015	0.020	0.809
26171	3.106	0.345	0.330	0.087	0.614	0.019	0.029	0.793
26172	3.073	0.306	0.326	0.106	0.575	0.022	0.019	0.802

APPENDIX – XV: Individual Animal Histopathology

G 1 (Control)

Dose: 0 mg/kg

Organ/Microscopic Finding							Animal Number					
	Males						Females					
	26101	26102	26103	26104	26105	26106	26107	26108	26109	26110	26111	26112
Lungs: Peri-bronchial MNCs infiltration	NAD	NAD	NAD	NAD	<1>	NAD	NAD	NAD	NAD	NAD	<1>	NAD
Lungs: Oedematous fluid accumulation	NAD	NAD	<1>	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Liver: Perivascular MNCs infiltration	NAD	NAD	NAD	NAD	<1>	NAD	NAD	NAD	<1>	NAD	NAD	NAD
Kidneys: tubular degeneration	NAD	NAD	NAD	NAD	NAD	NAD	NAD	<1>	NAD	NAD	NAD	NAD
Adrenals	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Urinary Bladder	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Heart	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Aorta	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Trachea	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Thyroid/parathyroid	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Pancreas	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Thymus (or thymic region)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Spleen	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Eyes	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Skin and Mammary gland (Females)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Skeletal Muscle	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Esophagus	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Peripheral nerve (sciatic)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Testes /Ovaries	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Epididymis/ Uterus	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Seminal Vesicle/Vagina	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Stomach	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Duodenum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Jejunum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Ilium	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Cecum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Colon	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Rectum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Brain: cerebrum, cerebellum, midbrain	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Spinal Cord	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Bone (Bone marrow)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD

Key: NAD = No Abnormality Detected, 1= Minimal, <> = Focal, () = multifocal

APPENDIX – XV (Contd.): Individual Animal Histopathology

G 3 (Mid)

Dose: 750 mg/kg

Organ/Microscopic Finding	Animal Number
	Males
	26129
Testes	NAD
Stomach	NAD

Key: NAD= No Abnormality Detected

APPENDIX – XV (Contd.): Individual Animal Histopathology

G 4 (High)

Dose: 1000 mg/kg

Organ/Microscopic Finding							Animal Number					
	Males						Females					
	26137	26138	26139	26140	26141	26142	26143	26144	26145	26146	26147	26148
Lungs: Peri-bronchial MNCs infiltration	<I>	NAD	<I>	NAD	NAD	NAD	NAD	NAD	<I>	NAD	NAD	NAD
Lungs: Oedematous fluid accumulation	NAD	NAD	NAD	<I>	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Liver: Perivascular MNCs infiltration and congestion	<I>	NAD	NAD	NAD	NAD	NAD	NAD	NAD	<I>	NAD	NAD	NAD
Liver: necrosis	NAD	NAD	<I>	NAD	NAD	NAD	<I>	NAD	NAD	NAD	NAD	NAD
Kidneys: tubular degeneration	NAD	NAD	NAD	<I>	NAD	NAD	NAD	NAD	NAD	NAD	<I>	NAD
Adrenals	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Urinary Bladder	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Heart	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Aorta	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Trachea	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Thyroid/parathyroid	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Pancreas	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Thymus	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Spleen	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Eyes	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Skin and Mammary gland (Females)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Skeletal Muscle	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Esophagus	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Peripheral nerve (sciatic)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Testes /Ovaries	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Epididymis/ Uterus	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Seminal Vesicle/Vagina	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Stomach	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Duodenum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Jejunum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Ilium	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Cecum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Colon	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Rectum	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Brain: cerebrum, cerebellum, midbrain	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Spinal Cord	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Bone (Bone marrow)	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD

Key: NAD = No Abnormality Detected, I= Minimal, <> = Focal, () = multifocal

ANNEXURE 1: CERTIFICATE OF ANALYSIS OF TEST ITEM

VEDICINALS INDIA PRIVATE LIMITED

REGD. OFF: Building J, Flat No. 204, Devi Indrayani Apartments, Dehu-Alandi Road, Talawade Pune Maharashtra 412114

CIN: U74999PN2017PTC170824 : Email: prakash160876@gmail.com

Certificate of Analysis / Specifications																		
Sample Name: CORONASH™ / VEDICINALS™ - 9 / MOLECUSAN™ - 9	Project ID: CORONASH™ / VEDICINALS™ - 9 / MOLECUSAN™ - 9	Batch No. : TRL/001																
Mfg Date: 24/05/2020	Shelf life: 2 Years	Batch Qty: 500 gm																
Analysis / Specifications																		
Description	Brownish Yellow powder																	
Solubility	Slightly soluble in Water, Soluble in Ethyl Alcohol and DMSO																	
Average Weight	5279 mg ± 2.5%																	
Weight Variation	5279 mg ± 5%																	
Residual Solvents	Complies IP/USP																	
LOD	NMT 10%																	
Strength/Potency/Assay of formulation.	Each 5279 mg contains - <table><tr><td>Compound 1 (85%)</td><td>: 353 mg - Plant extract 1</td></tr><tr><td>Compound 2 + 3 (95%)</td><td>: 736 mg - Plant extract 2</td></tr><tr><td>Compound 4 (20%)</td><td>: 1500 mg - Plant extract 3</td></tr><tr><td>Compound 5 (90%)</td><td>: 667 mg - Plant extract 4</td></tr><tr><td>Compound 6 (95%)</td><td>: 1053 mg - Plant extract 5</td></tr><tr><td>Compound 7 (50%)</td><td>: 889 mg - Plant extract 6</td></tr><tr><td>Compound 8 (95%)</td><td>: 21 mg - Plant extract 7</td></tr><tr><td>Compound 9 (20%)</td><td>: 60 mg - Plant extract 8</td></tr></table> Individual COA of each Phyto-compound with manufacturing batch details available.		Compound 1 (85%)	: 353 mg - Plant extract 1	Compound 2 + 3 (95%)	: 736 mg - Plant extract 2	Compound 4 (20%)	: 1500 mg - Plant extract 3	Compound 5 (90%)	: 667 mg - Plant extract 4	Compound 6 (95%)	: 1053 mg - Plant extract 5	Compound 7 (50%)	: 889 mg - Plant extract 6	Compound 8 (95%)	: 21 mg - Plant extract 7	Compound 9 (20%)	: 60 mg - Plant extract 8
Compound 1 (85%)	: 353 mg - Plant extract 1																	
Compound 2 + 3 (95%)	: 736 mg - Plant extract 2																	
Compound 4 (20%)	: 1500 mg - Plant extract 3																	
Compound 5 (90%)	: 667 mg - Plant extract 4																	
Compound 6 (95%)	: 1053 mg - Plant extract 5																	
Compound 7 (50%)	: 889 mg - Plant extract 6																	
Compound 8 (95%)	: 21 mg - Plant extract 7																	
Compound 9 (20%)	: 60 mg - Plant extract 8																	
Microbiological Testing	All materials used in the preparation of CORONASH™ / VEDICINALS™ - 9 / MOLECUSAN™ - 9 powder complies as per requirements of IP/USP																	



For VEDICINALS INDIA PVT LTD
DIRECTOR

Note: The test item has three synonyms (CORONASHTM / VEDICINALSTM - 9 / MOLECUSANTM - 9) but CORONASHTM is considered as primary name of the test item throughout the study.

ANNEXURE II: GLP CERTIFICATE



GOVERNMENT OF INDIA
Department of Science and Technology
National Good Laboratory Practice (GLP) Compliance Monitoring Authority (NGCMA)

Certificate of GLP Compliance

Based on the Inspection and the subsequent follow-up actions

**PRADO Preclinical Research and Development
Organization Private Limited**
Survey No. 170/1, Punawale Road, Tathawade
Pune – 411033 (Maharashtra)

is certified capable of conducting the below-mentioned tests/studies in compliance with Organization for Economic Co-operation & Development (OECD) Principles of GLP:

- **Toxicity Studies**

The specific areas of expertise, types of chemicals and test systems are listed in annexure overleaf.

Validity: December 12, 2018 – December 11, 2021

This certificate is subject to the condition that the test facility complies with the NGCMA's Document No. GLP-101 "Terms & Conditions of NGCMA for obtaining and maintaining GLP certification by a test facility" and OECD Principles of GLP..

Certificate No. : GLP/C-127/2018
Issue Date : 12-12-2018



Neeraj Sharma
(Dr. Neeraj Sharma)
Head, NGCMA