Table 4.9

Body weights of rats in the chronic toxicity study of *T. chebula*

Groups	Day 0	Day 90	Day 180	Day 270	Day 298	Weight gain on day 270
Female						
Control	205.40 ± 4.07	292.00 ± 5.97	320.50 ± 5.19	359.00 ± 10.30	-	153.60 ± 9.01
T.chebula 300 mg/kg	204.00 ± 3.53	283.00 ± 5.01	307.50 ± 5.59	342.00 ± 11.01	-	138.00 ± 8.08
T.chebula 600 mg/kg	203.40 ± 3.50	276.00 ± 5.15	302.50 ± 8.44	325.50 ± 9.32*	-	122.10 ± 7.27*
T.chebula 1200 mg/kg	201.80 ± 5.57	273.50 ± 8.82*	308.50 ± 11.57	337.00 ± 12.30	-	135.20 ± 8.30
Satellite	203.60 ± 5.60	287.50 ± 6.07	324.00 ± 11.54	350.00 ± 11.93	363.50 ± 12.47	146.40 ± 8.18
Male						
Control	278.60 ± 3.65	501.50 ± 11.30	566.50 ± 12.32	612.50 ± 12.87	-	333.90 ± 10.91
T.chebula 300 mg/kg	262.20 ± 8.33	467.50 ± 9.17	502.50 ± 10.03*	527.50 ± 9.04*	-	265.30 ± 5.31*
T.chebula 600 mg/kg	277.00 ± 6.05	455.50 ± 10.26*	493.50 ± 12.67*	536.50 ± 19.71*	-	259.50 ± 21.59*
T.chebula 1200 mg/kg	270.80 ± 4.63	446.50 ± 17.05*	509.50 ± 17.33*	561.50 ± 19.08*	-	290.70 ± 16.47*
Satellite	274.00 ± 7.50	444.50 ± 10.94*	510.50 ± 11.39*	554.00 ± 12.17*	577.50 ±12.89	280.00 ± 7.18*

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.10

Organ weights of female rats in the chronic toxicity study of *T. chebula*

Organ	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Brain	1.95 ± 0.02	1.94 ± 0.03	1.83 ± 0.04*	1.90 ± 0.03	1.91 ± 0.02
Lung	1.88 ± 0.13	1.72 ± 0.05	1.78 ± 0.12	1.68 ± 0.06	1.60 ± 0.05*
Heart	1.24 ± 0.05	1.31 ± 0.05	1.17 ± 0.04	1.25 ± 0.05	1.32 ± 0.04
Liver	9.55 ± 0.44	8.79 ± 0.35	8.48 ± 0.23*	8.73 ± 0.31	8.96 ± 0.41
Pancreas	1.45 ± 0.06	1.38 ± 0.09	1.40 ± 0.10	1.60 ± 0.10	1.66 ± 0.11
Spleen	0.90 ± 0.04	0.91 ± 0.03	0.79 ± 0.03*	0.86 ± 0.04	0.91 ± 0.02
Adrenal	0.03 ± 0.00	0.03 ± 0.00	0.04 ± 0.00	0.03 ± 0.02	0.03 ± 0.00
Kidney	1.29 ± 0.03	1.27 ± 0.03	1.16 ± 0.02*	1.25 ± 0.03	1.32 ± 0.03
Ovary	0.07 ± 0.00	0.08 ± 0.00	0.09 ± 0.00	0.06 ± 0.03	0.07 ± 0.00
Uterus	0.69 ± 0.08	0.86 ± 0.09	0.74 ± 0.06	0.71 ± 0.06	0.63 ± 0.04

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.11

Organ weights of male rats in the chronic toxicity study of *T. chebula*

Organ	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Brain	2.04 ± 0.03	1.93 ± 0.03*	1.99 ± 0.03	2.00 ± 0.04	2.03 ± 0.02
Lung	2.24 ± 0.04	2.18 ± 0.05	2.09 ± 0.06	2.20 ± 0.10	2.10 ± 0.07
Heart	1.83 ± 0.06	1.68 ± 0.05	1.71 ± 0.07	1.79 ± 0.09	1.81 ± 0.06
Liver	18.50 ± 1.03	14.86 ± 0.44*	15.17 ± 0.68*	16.50 ± 0.56	16.92 ± 0.66
Pancreas	1.99 ± 0.18	1.77 ± 0.13	1.70 ± 0.12	1.74 ± 0.14	1.63 ± 0.06
Spleen	1.12 ± 0.07	1.04 ± 0.02	1.04 ± 0.04	1.02 ± 0.03	1.07 ± 0.03
Adrenal	0.03 ± 0.00	0.03 ± 0.00	0.03 ± 0.00	0.03 ± 0.02	0.03 ± 0.00
Kidney	1.90 ± 0.05	1.80 ± 0.03	1.79 ± 0.04	1.87 ± 0.07	1.94 ± 0.04
Testis	1.98 ± 0.05	1.96 ± 0.06	1.99 ± 0.04	2.09 ± 0.04	2.09 ± 0.02
Epidydimis	0.77 ± 0.03	0.81 ± 0.02	0.77 ± 0.02	0.89 ± 0.03*	0.81 ± 0.01

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.12

Hematological values of female rats in the chronic toxicity study of *T. chebula*

Hematological values	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
RBC ($x10^6$/µl)	7.39 ± 0.11	7.69 ± 0.17	7.63 ± 0.09	7.35 ± 0.05	7.30 ± 0.09
Hemoglobin (g/dl)	15.14 ± 0.34	15.67 ± 0.34	15.54 ± 0.21	15.13 ± 0.20	15.19 ± 0.17
Hematocrit (%)	45.20 ± 0.66	46.00 ± 0.98	46.20 ± 0.68	44.70 ± 0.45	46.20 ± 0.61
MCV (fl)	60.99 ± 0.50	59.90 ± 0.32*	60.63 ± 0.33	60.42 ± 0.41	63.06 ± 0.32*
MCH (pg)	20.52 ± 0.20	20.37 ± 0.12	20.37 ± 0.16	21.57 ± 0.93	20.81 ± 0.17
MCHC (g/dl)	33.63 ± 0.20	34.02 ± 0.21	33.61 ± 0.31	35.71 ± 1.59	32.99 ± 0.28
Platelet ($x10^5$/µl)	6.50 ± 0.37	5.87 ± 0.39	5.73 ± 0.43	5.45 ± 0.49	6.18 ± 0.15

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.13

Hematological values of male rats in the chronic toxicity study of *T. chebula*

Hematological values	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
RBC ($x10^6/\mu l$)	7.95 ± 0.17	8.42 ± 0.08*	8.27 ± 0.13	8.30 ± 0.12	8.40 ± 0.10*
Hemoglobin (g/dl)	15.44 ± 0.33	16.10 ± 0.17	15.79 ± 0.20	15.87 ± 0.21	15.95 ± 0.24
Hematocrit (%)	47.30 ± 0.86	49.60 ± 0.45	48.90 ± 0.79	48.90 ± 0.69	49.60 ± 0.64*
MCV (fl)	59.48 ± 0.91	58.76 ± 0.23	59.09 ± 0.41	58.84 ± 0.23	59.10 ± 0.23
MCH (pg)	19.44 ± 0.34	19.11 ± 0.11	19.11 ± 0.19	19.15 ± 0.11	18.99 ± 0.14
MCHC (g/dl)	32.70 ± 0.21	32.54 ± 0.13	32.30 ± 0.23	32.50 ± 0.21	32.14 ± 0.18*
Platelet ($x10^5/\mu l$)	7.68 ± 0.40	7.66 ± 0.40	7.75 ± 0.34	8.04 ± 0.23	7.76 ± 0.32

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.14

Differential white blood cell count values of female rats in the chronic toxicity study of *T.chebula*

Differential white blood cell count values	Control	*T. chebula*			
		300 mg/kg	**600 mg/kg**	**1,200 mg/kg**	**Satellite**
WBC ($x10^3/\mu l$)	2.93 ± 0.42	2.94 ± 0.37	2.66 ± 0.32	3.09 ± 0.24	2.45 ± 0.18
Neutrophil (%)	16.30 ± 1.15	14.70 ± 1.86	16.00 ± 2.18	19.70 ± 1.88	28.30 ± 2.33*
Lymphocyte (%)	73.30 ± 0.92	73.00 ± 2.13	71.50 ± 2.54	66.80 ± 2.33*	60.70 ± 2.54*
Monocyte (%)	7.40 ± 0.48	8.00 ± 0.68	8.00 ± 0.49	8.80 ± 0.44	9.20 ± 0.36*
Eosinophil (%)	3.00 ± 0.33	4.30 ± 0.50	4.70 ± 0.54*	4.70 ± 0.54*	2.80 ± 0.53
Basophil (%)	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.15

Differential white blood cell count values of male rats in the chronic toxicity study of *T. chebula*

Differential white blood cell count values	**Control**	***T. chebula***			
		300 mg/kg	**600 mg/kg**	**1,200 mg/kg**	**Satellite**
WBC ($x10^3/\mu l$)	3.64 ± 0.27	4.02 ± 0.31	4.42 ± 0.45	4.44 ± 0.20	3.97 ± 0.28
Neutrophil (%)	21.80 ± 5.79	21.50 ± 1.86	18.80 ± 2.82	20.20 ± 2.16	27.70 ± 2.72
Lymphocyte (%)	65.30 ± 5.37	67.00 ± 2.20	70.40 ± 2.68	69.80 ± 1.98	61.90 ± 2.27
Monocyte (%)	10.70 ± 0.94	9.00 ± 0.45	8.40 ± 0.45*	8.30 ± 0.47*	8.40 ± 0.56*
Eosinophil (%)	2.20 ± 0.25	2.50 ± 0.22	2.40 ± 0.40	1.70 ± 0.26	3.00 ± 0.58
Basophil (%)	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$

Table 4.16

Biochemical values of female rats in the chronic toxicity study of *T. chebula*

Biochemical values	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Glucose (mg/dl)	125.50 ± 2.16	131.00 ± 5.26	127.90 ± 4.35	125.00 ± 4.01	128.80 ± 7.37
BUN (mg/dl)	19.70 ± 0.80	19.30 ± 0.62	20.50 ± 0.48	19.00 ± 0.87	17.40 ± 0.64*
Creatinine (mg/dl)	0.43 ± 0.03	0.49 ± 0.03	0.47 ± 0.02	0.44 ± 0.02	0.45 ± 0.03
Total protein (g/dl)	5.78 ± 0.11	5.84 ± 0.12	5.91 ± 0.12	5.79 ± 0.06	5.85 ± 0.12
Albumin (g/dl)	4.18 ± 0.07	4.24 ± 0.11	4.31 ± 0.08	4.15 ± 0.05	3.88 ± 0.07*
Total bilirubin (mg/dl)	0.19 ± 0.01	0.18 ± 0.01	0.20 ± 0.00	0.18 ± 0.01	0.16 ± 0.02
Direct bilirubin (mg/dl)	0.08 ± 0.01	0.03 ± 0.01*	0.06 ± 0.02	0.03 ± 0.01*	0.01 ± 0.01*
AST (U/l)	136.60 ± 10.65	137.70 ± 9.97	178.40 ± 17.73*	145.70 ± 11.28	111.00 ± 12.88*
ALT (U/l)	48.10 ± 4.67	43.10 ± 5.29	65.10 ± 9.80	43.10 ± 4.86	47.70 ± 7.00
ALP (U/l)	35.40 ± 2.32	30.20 ± 2.27	32.40 ± 2.87	31.00 ± 1.24	32.20 ± 1.77

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.17

Biochemical values of male rats in the chronic toxicity study of *T. chebula*

Biochemical values	Control	*T. chebula*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Glucose (mg/dl)	145.80 ± 7.95	135.80 ± 2.63	150.00 ±6.22	155.40 ± 18.48	154.20 ± 4.59
BUN (mg/dl)	20.20 ± 1.70	18.40 ± 0.70	19.20 ± 0.59	20.40 ± 0.76	18.00 ± 0.68
Creatinine (mg/dl)	0.40 ± 0.02	0.37 ± 0.03	0.42 ± 0.03	0.34 ± 0.02	0.36 ± 0.02
Total protein (g/dl)	5.70± 0.11	5.71 ± 0.09	6.01 ± 0.12*	6.01 ± 0.09*	5.68 ± 0.05
Albumin (g/dl)	3.81 ± 0.06	3.82 ± 0.07	3.96 ± 0.07	3.95 ± 0.06	3.44 ± 0.04*
Total bilirubin (mg/dl)	0.15 ± 0.02	0.12 ± 0.01	0.14 ± 0.02	0.11 ± 0.01	0.13 ± 0.01
Direct bilirubin (mg/dl)	0.05 ± 0.02	0.06 ± 0.02	0.02 ± 0.01	0.03 ± 0.01	0.00 ± 0.00*
AST (U/l)	140.60 ± 13.40	131.00 ± 6.98	119.90 ± 10.33	132.30 ± 11.35	141.50 ± 13.20
ALT (U/l)	82.90 ± 22.06	46.00 ± 4.17	69.70 ± 19.66	75.60 ± 24.18	82.00 ± 20.84
ALP (U/l)	67.20 ± 9.05	55.20 ± 1.71	56.60 ± 2.08	57.90 ± 1.47	51.00 ± 1.90*

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.18

Body weights of rats in the chronic toxicity study of *T. bellerica*

Group	Day 0	Day 90	Day 180	Day 270	Day 298	Weight gain on day 270
Female						
Control	199.00 ± 3.58	285.50 ± 6.21	303.50 ± 6.23	333.50 ± 6.79	-	134.50 ± 4.78
T.bellerica 300 mg/kg	197.75 ± 4.16	274.38 ± 5.21	293.13 ± 3.65	323.13 ± 6.61	-	128.35 ± 5.45
T.bellerica 600 mg/kg	200.20 ± 2.43	287.50 ± 4.48	310.50 ± 5.34	344.50 ± 6.34	-	144.30 ± 6.28
T.bellerica 1200 mg/kg	199.44 ± 3.91	278.50 ± 5.63	305.50 ± 4.04	331.00 ± 6.74	-	131.60 ± 8.05
Satellite	199.20 ± 3.95	287.00 ± 8.30	316.00 ± 8.71	353.50 ± 11.35	365.00 ± 14.18	154.30 ± 10.90
Male						
Control	280.80 ± 6.51	449.50 ± 15.70	528.50 ± 14.83	583.50 ± 14.61	-	302.70 ± 12.58
T.bellerica 300 mg/kg	279.33 ± 6.34	448.33 ± 11.70	501.67 ± 13.57	531.67 ± 16.44*	-	252.33 ± 13.98*
T.bellerica 600 mg/kg	286.40 ± 4.53	413.50 ± 8.79*	459.00 ± 12.11*	483.00 ± 12.57*	-	214.60 ± 10.67*
T.bellerica 1200 mg/kg	282.60 ± 3.53	414.50 ± 8.71*	474.50 ± 11.36*	511.00 ± 13.78*	-	228.40 ± 14.10*
Satellite	267.67 ± 3.30	422.22 ± 11.91	486.67 ± 18.11*	525.00 ± 16.09*	552.78 ± 16.75	261.22 ± 14.25*

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$

Table 4.19

Organ weights of female rats in the chronic toxicity study of *T. bellerica*

Organ	Control	*T.bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Brain	1.86 ± 0.05	1.78 ± 0.06	1.85 ± 0.04	1.90 ± 0.03	1.88 ± 0.02
Lung	1.84 ± 0.10	1.80 ± 0.13	1.70 ± 0.08	1.78 ± 0.08	1.77 ± 0.11
Heart	1.29 ± 0.05	1.21 ± 0.03	1.29 ± 0.04	1.33 ± 0.06	1.31 ± 0.04
Liver	9.80 ± 0.68	9.30± 0.89	9.96± 0.78	10.69± 0.99	9.55± 0.40
Pancreas	1.54 ± 0.14	1.24 ± 0.12	1.44 ± 0.08	1.56 ± 0.10	1.35 ± 0.07
Spleen	0.84 ± 0.05	0.78 ± 0.04	0.83 ± 0.03	0.83 ± 0.05	0.94 ± 0.44
Adrenal	0.04 ± 0.00	0.04 ± 0.00	0.04 ± 0.00	0.04 ± 0.00	0.04 ± 0.00
Kidney	1.23 ± 0.03	1.16 ± 0.02	1.29 ± 0.03	1.35 ± 0.06	1.23 ± 0.03
Ovary	0.07 ± 0.00	0.07 ± 0.00	0.06 ± 0.00	0.08 ± 0.01	0.08 ± 0.00
Uterus	0.90 ± 0.14	0.78 ± 0.11	0.74 ± 0.06	0.95 ± 0.19	0.64 ± 0.06

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.20

Organ weights of male rats in the chronic toxicity study of *T. bellerica*

Organ	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Brain	2.08 ± 0.04	1.99 ± 0.02	1.96 ± 0.03*	2.01 ± 0.04	2.00 ± 0.03
Lung	2.76 ± 0.29	2.49 ± 0.12	2.10 ± 0.11*	2.08 ± 0.08*	2.41 ± 0.31
Heart	1.77 ± 0.04	1.61 ± 0.06*	1.55 ± 0.05*	1.61 ± 0.07*	1.65 ± 0.06
Liver	14.65 ± 0.41	13.67± 0.39	11.95± 0.42*	13.56± 0.55	15.99± 0.65
Pancreas	1.34 ± 0.10	1.37 ± 0.10	1.62 ± 0.10	1.64 ± 0.13	1.59 ± 0.10
Spleen	1.15 ± 0.04	1.04 ± 0.05	1.00 ± 0.11	0.94 ± 0.04*	1.10 ± 0.05
Adrenal	0.03 ± 0.00	0.04 ± 0.00	0.03 ± 0.00	0.04 ± 0.00	0.04 ± 0.00
Kidney	1.72 ± 0.04	1.65 ± 0.03	1.56 ± 0.04*	1.64 ± 0.04	1.86 ± 0.05*
Testis	1.98 ± 0.41	2.03± 0.02	1.91± 0.05	2.03± 0.03	2.03± 0.06
Epidydimis	0.81 ± 0.02	0.80 ± 0.03	0.82 ± 0.02	0.86 ± 0.03	0.83 ± 0.01

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.21

Hematological values of female rats in the chronic toxicity study of *T. bellerica*

Hematological values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
RBC ($x10^6/\mu l$)	7.36 ± 0.05	7.21 ± 0.14	7.43 ± 0.04	7.25 ± 0.08	7.31 ± 0.14
Hemoglobin (g/dl)	15.40 ± 0.10	15.12 ± 0.22	15.45 ± 0.10	15.10 ± 0.15	15.07 ± 0.26
Hematocrit (%)	45.40 ± 0.34	44.13 ± 0.92	45.70 ± 0.37	44.30 ± 0.40	45.20 ± 0.80
MCV (fl)	61.53 ± 0.37	61.05 ± 0.29	61.51 ± 0.38	61.18 ± 0.30	61.95 ± 0.42
MCH (pg)	20.92 ± 0.13	20.96 ± 0.23	20.85 ± 0.15	20.85 ± 0.09	20.65 ± 0.16
MCHC (g/dl)	34.00 ± 0.18	34.34 ± 0.35	33.9 ± 0.21	34.05 ± 0.18	33.90 ± 0.57
Platelet ($x10^5/\mu l$)	5.47 ± 0.17	6.12 ± 0.21	5.77 ± 0.13	5.85 ± 0.23	5.84 ± 0.56

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.22

Hematological values of male rats in the chronic toxicity study of *T. bellerica*

Hematological values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
RBC ($x10^6/\mu l$)	8.30 ± 0.21	8.56 ± 0.10	8.67 ± 0.10	8.55 ± 0.11	8.57 ± 0.13
Hemoglobin (g/dl)	16.05 ± 0.23	16.37 ± 0.15	16.19 ± 0.20	16.11 ± 0.23	16.14 ± 0.21
Hematocrit (%)	49.70 ± 0.73	51.11 ± 0.61	50.40 ± 0.58	50.20 ± 0.80	50.56 ± 0.75
MCV (fl)	59.84 ± 0.90	59.62 ± 0.43	58.26 ± 0.58	58.67 ± 0.47	59.02 ± 0.17
MCH (pg)	19.40 ± 0.31	19.09 ± 0.15	18.69 ± 0.22*	18.85 ± 0.20	18.87 ± 0.11
MCHC (g/dl)	32.43 ± 0.19	32.07 ± 0.27	32.08 ± 0.18	32.14 ± 0.13	31.94 ± 0.20
Platelet ($x10^5/\mu l$)	8.04 ± 0.22	7.80 ± 0.18	7.99 ± 0.19	8.00 ± 0.20	7.51 ± 0.32

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.23

Differential white blood cell count values of female rats in the chronic toxicity study of *T. bellerica*

Differential white blood cell count values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
WBC ($x10^3/\mu l$)	2.75 ± 0.25	2.41 ± 19	3.09 ± 0.42	3.09 ± 0.24	3.00 ± 0.47
Neutrophil (%)	14.50 ± 1.20	16.38 ± 2.15	18.40 ± 2.56	14.00 ± 1.00	26.00 ± 4.13*
Lymphocyte (%)	71.41 ± 1.66	70.00 ± 2.67	66.50 ± 3.26	69.70 ± 1.20	62.50 ± 4.43*
Monocyte (%)	9.70 ± 0.84	9.00 ± 1.17	10.80 ± 0.65	10.60 ± 0.56	8.30 ± 0.50
Eosinophil (%)	4.40 ± 0.86	4.63 ± 0.98	4.30 ± 1.45	5.70 ± 0.80	3.20 ± 0.63
Basophil (%)	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.24

Differential white blood cell count values of male rats in the chronic toxicity study of *T. bellerica*

Differential white blood cell count values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
WBC ($x10^3/\mu l$)	4.31 ± 0.55	6.74 ± 0.05*	5.98 ± 0.41*	4.36 ± 0.69	4.22 ± 0.23
Neutrophil (%)	25.70 ± 5.05	28.89 ± 3.59	31.50 ± 3.43	22.90 ± 2.25	31.33 ± 3.22
Lymphocyte (%)	65.70 ± 4.00	59.11 ± 3.67	56.10 ±3.70*	66.00 ± 2.42	57.22 ± 2.52
Monocyte (%)	9.70 ± 0.21	10.00 ± 1.38	9.40 ± 0.40	8.40 ± 0.70	8.22 ± 0.52
Eosinophil (%)	2.20 ± 0.20	2.56 ± 0.56	3.10 ± 0.61	2.70 ± 0.76	2.67 ± 0.50
Basophil (%)	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.25

Biochemical values of female rats in the chronic toxicity study of *T. bellerica*

Biochemical values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Glucose (mg/dl)	114.60 ± 4.16	127.00 ± 4.66*	125.30 ± 1.78*	118.60 ± 2.75	124.20 ± 5.01
BUN (mg/dl)	19.10 ± 0.62	18.25 ± 3.23	17.90 ± 0.71	19.10 ± 0.82	18.90 ± 0.88
Creatinine (mg/dl)	0.42 ± 0.02	0.44 ± 0.02	0.41 ± 0.01	0.41 ± 0.02	0.41 ± 0.02
Total protein (g/dl)	5.86 ± 0.04	5.81 ± 0.06	5.95 ± 0.10	5.82 ± 0.08	5.81 ± 0.09
Albumin (g/dl)	3.96 ± 0.03	3.94 ± 0.06	4.02 ± 0.07	3.95 ± 0.05	3.74 ± 0.09*
Total bilirubin (mg/dl)	0.24 ± 0.02	0.21 ± 0.02	0.23 ± 0.03	0.26 ± 0.02	0.16 ± 0.02*
Direct bilirubin (mg/dl)	0.07 ± 0.02	0.06 ± 0.02	0.07 ± 0.02	0.07 ± 0.02	0.00 ± 0.00*
AST (U/l)	148.50 ± 10.02	131.25 ± 11.08	125.70 ± 6.29	146.70 ± 13.66	114.60 ± 8.70*
ALT (U/l)	47.30 ± 4.24	40.13 ± 3.93	39.40 ± 3.39	45.00 ± 4.41	41.30 ± 2.97
ALP (U/l)	28.30 ± 1.06	30.00 ± 2.18	31.50 ± 2.17	28.60 ± 1.19	37.10 ± 5.21*

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.

Table 4.26

Biochemical values of male rats in the chronic toxicity study of *T. bellerica*

Biochemical values	Control	*T. bellerica*			
		300 mg/kg	600 mg/kg	1,200 mg/kg	Satellite
Glucose (mg/dl)	136.88 ± 4.03	130.63 ± 4.38	143.63 ± 7.09	127.78 ± 3.05	142.44 ± 5.46
BUN (mg/dl)	20.30 ± 0.62	20.67 ± 0.65	19.30 ± 0.67	19.40 ± 0.62	18.56 ± 0.29*
Creatinine (mg/dl)	0.36 ± 0.02	0.37 ± 0.02	0.35 ± 0.02	0.31± 0.02	0.41 ± 0.02
Total protein (g/dl)	5.95 ± 0.08	6.14 ± 0.10	6.09 ± 0.08	6.20 ± 0.06*	6.11 ± 0.08
Albumin (g/dl)	3.63 ± 0.08	3.66 ± 0.07	3.67 ± 0.05	3.77 ± 0.04	3.57 ± 0.06
Total bilirubin (mg/dl)	0.19 ± 0.01	0.19 ± 0.01	0.18 ± 0.01	0.20 ± 0.00	0.11 ± 0.01*
Direct bilirubin (mg/dl)	0.07 ± 0.02	0.06 ± 0.02	0.08 ± 0.01	0.09 ± 0.01	0.00 ± 0.00*
AST (U/l)	147.30± 7.25	161.22 ± 21.87	133.40 ± 8.94	138.80 ± 10.41	133.67 ± 7.44
ALT (U/l)	47.90 ± 3.65	63.22 ± 8.17	48.00 ± 3.54	56.20 ± 8.50	59.22 ± 5.57
ALP (U/l)	56.30 ± 2.19	57.89 ± 3.13	62.50 ± 2.77	55.10 ± 1.54	52.44 ± 2.44

Values are expressed as mean ± S.E.M., n = 10

Satellite: a group was treated with oral dose of 1,200 mg/kg body weight/day for 270 days following by no treatment for 28 days.

* Significantly different from control, $p<0.05$.