

Blood chemistry

AST	(IU/L)	Aspartate transaminase
ALT	(IU/L)	Alanine transaminase
ALP	(IU/L)	Alkaline phosphatase
T-Bil	(mg/dL)	Total bilirubin
TP	(g/dL)	Total protein
PL	(mg/dL)	Phospholipid
TG	(mg/dL)	Triglyceride
T-cho	(mg/dL)	Total cholesterol

Table 4-1 Blood chemistry in male mice

Study No. SBL366-003

Group		CL sollution	LRX	LRX	LRX	LRX
Dose ($\mu\text{g}/\text{kg}$)			0.005	0.5	50	5000
N		5	3	4	4	4
AST	(IU/L)	45.6 \pm 5.5	44.0 \pm 4.6	54.8 \pm 15.8	54.0 \pm 6.4	73.5 \pm 14.6**
ALT	(IU/L)	29.6 \pm 4.0	26.7 \pm 5.5	33.3 \pm 8.2	37.8 \pm 19.3	32.3 \pm 4.8
ALP	(IU/L)	167.2 \pm 16.8	176.3 \pm 17.6	246.8 \pm 68.3	252.0 \pm 182.7	213.0 \pm 53.2
T-Bil	(mg/dL)	0.086 \pm 0.005	0.087 \pm 0.012	0.105 \pm 0.013	0.103 \pm 0.022	0.098 \pm 0.028
TP	(g/dL)	4.48 \pm 0.23	4.43 \pm 0.15	4.65 \pm 0.19	4.60 \pm 0.16	4.70 \pm 0.12
PL	(mg/dL)	225.0 \pm 24.4	246.3 \pm 12.6	255.8 \pm 28.8	191.3 \pm 25.9	205.3 \pm 15.3
TG	(mg/dL)	43.4 \pm 16.4	74.7 \pm 28.9	70.0 \pm 29.1	44.5 \pm 11.9	37.3 \pm 20.0
T-cho	(mg/dL)	145.0 \pm 21.2	150.3 \pm 2.9	157.5 \pm 25.3	114.0 \pm 20.5	125.5 \pm 10.1
Glucose	(mg/dL)	207.4 \pm 49.7	176.7 \pm 29.3	197.5 \pm 25.5	182.5 \pm 43.6	175.8 \pm 20.1
Albumin	(g/dL)	3.02 \pm 0.15	2.97 \pm 0.12	3.00 \pm 0.08	3.05 \pm 0.17	3.08 \pm 0.10

Values are expressed as the mean \pm S.D.

** P<0.01 : Significantly different from CL sollution.

Table 4-2 Blood chemistry in male mice

Study No. SBL366-003

Group		LRY	LRY	LRY	LRY
Dose ($\mu\text{g}/\text{kg}$)		0.005	0.5	50	5000
N		3	4	4	1
AST	(IU/L)	46.3 \pm 8.5	58.0 \pm 27.9	46.0 \pm 4.5	40.0
ALT	(IU/L)	31.7 \pm 4.5	28.8 \pm 6.1	31.0 \pm 7.3	28.0
ALP	(IU/L)	178.3 \pm 38.1	241.5 \pm 113.3	178.8 \pm 45.4	142.0
T-Bil	(mg/dL)	0.073 \pm 0.021	0.093 \pm 0.010	0.088 \pm 0.015	0.080
TP	(g/dL)	4.57 \pm 0.31	4.75 \pm 0.13	4.63 \pm 0.10	4.60
PL	(mg/dL)	216.0 \pm 16.7	221.5 \pm 26.6	214.8 \pm 35.7	191.0
TG	(mg/dL)	37.0 \pm 8.0	56.3 \pm 19.7	43.8 \pm 18.2	50.0
T-cho	(mg/dL)	132.0 \pm 8.9	140.3 \pm 26.8	140.8 \pm 20.1	112.0
Glucose	(mg/dL)	180.7 \pm 5.5	183.0 \pm 9.4	198.5 \pm 18.3	198.0
Albumin	(g/dL)	3.03 \pm 0.25	3.15 \pm 0.13	3.03 \pm 0.17	3.00

Values are expressed as the mean \pm S.D.
 Not significantly different from CL solution.

Table 4-3

Blood chemistry in male mice

Study No. SBL366-003

Group		LRZ	LRZ	LRZ	LRZ
Dose ($\mu\text{g}/\text{kg}$)		0.005	0.5	50	5000
N		3	4	4	4
AST	(IU/L)	45.7 \pm 12.7	44.5 \pm 12.8	49.5 \pm 12.4	80.5 \pm 33.4
ALT	(IU/L)	34.7 \pm 10.4	29.5 \pm 6.5	27.5 \pm 5.9	35.8 \pm 6.8
ALP	(IU/L)	193.0 \pm 29.1	177.8 \pm 42.7	205.8 \pm 104.1	219.8 \pm 25.3
T-Bil	(mg/dL)	0.077 \pm 0.015	0.105 \pm 0.026	0.093 \pm 0.021	0.103 \pm 0.032
TP	(g/dL)	4.40 \pm 0.26	4.45 \pm 0.17	4.68 \pm 0.05	4.68 \pm 0.38
PL	(mg/dL)	202.7 \pm 25.6	186.0 \pm 38.4	236.5 \pm 23.5	209.3 \pm 25.2
TG	(mg/dL)	47.7 \pm 7.4	39.0 \pm 15.3	62.3 \pm 25.0	29.8 \pm 12.5
T-cho	(mg/dL)	127.7 \pm 24.0	113.5 \pm 22.4	143.3 \pm 16.0	138.5 \pm 9.9
Glucose	(mg/dL)	170.0 \pm 26.1	186.5 \pm 14.0	183.5 \pm 38.0	179.8 \pm 10.7
Albumin	(g/dL)	2.90 \pm 0.20	2.88 \pm 0.17	3.10 \pm 0.08	3.00 \pm 0.27

Values are expressed as the mean \pm S.D.
 Not significantly different from CL solution.

Table 4-4 Blood chemistry in female mice

Study No. SBL366-003

Group		CL solution	LRX	LRX	LRX	LRX
Dose ($\mu\text{g}/\text{kg}$)			0.005	0.5	50	5000
N		5	3	4	4	3
AST	(IU/L)	49.2 \pm 2.3	52.7 \pm 10.2	65.5 \pm 17.3	75.5 \pm 19.3*	78.0 \pm 21.8
ALT	(IU/L)	28.6 \pm 7.9	23.3 \pm 4.5	30.5 \pm 6.6	42.5 \pm 18.0	42.0 \pm 3.0
ALP	(IU/L)	311.8 \pm 117.8	243.7 \pm 21.6	247.5 \pm 52.5	313.0 \pm 26.5	285.0 \pm 55.1
T-Bil	(mg/dL)	0.064 \pm 0.015	0.060 \pm 0.017	0.055 \pm 0.013	0.055 \pm 0.031	0.057 \pm 0.006
TP	(g/dL)	4.24 \pm 0.05	4.43 \pm 0.15	4.58 \pm 0.15*	4.43 \pm 0.43	4.63 \pm 0.32
PL	(mg/dL)	137.6 \pm 17.7	130.0 \pm 18.0	149.8 \pm 9.4	169.8 \pm 20.2*	145.3 \pm 19.4
TG	(mg/dL)	14.4 \pm 5.7	16.0 \pm 6.1	26.5 \pm 8.4	29.3 \pm 12.0*	12.3 \pm 1.5
T-cho	(mg/dL)	87.4 \pm 13.1	76.7 \pm 6.0	88.5 \pm 6.8	103.0 \pm 16.1	84.0 \pm 13.5
Glucose	(mg/dL)	174.6 \pm 25.4	190.0 \pm 45.2	174.0 \pm 18.3	198.5 \pm 24.8	181.7 \pm 5.0
Albumin	(g/dL)	3.06 \pm 0.11	3.03 \pm 0.15	3.20 \pm 0.14	3.08 \pm 0.33	3.17 \pm 0.12

Values are expressed as the mean \pm S.D.

* P<0.05 : Significantly different from CL solution.

Table 4-5 Blood chemistry in female mice

Study No. SBL366-003

Group		LRY	LRY	LRY	LRY
Dose ($\mu\text{g}/\text{kg}$)		0.005	0.5	50	5000
N		3	4	4	1
AST	(IU/L)	54.3 \pm 5.1	69.0 \pm 8.5*	77.8 \pm 18.5**	47.0
ALT	(IU/L)	30.7 \pm 10.3	33.8 \pm 6.3	40.0 \pm 11.9	31.0
ALP	(IU/L)	301.3 \pm 96.2	272.8 \pm 23.8	285.0 \pm 39.1	239.0
T-Bil	(mg/dL)	0.077 \pm 0.021	0.073 \pm 0.015	0.060 \pm 0.014	0.020
TP	(g/dL)	4.63 \pm 0.23*	4.40 \pm 0.14	4.58 \pm 0.33	4.30
PL	(mg/dL)	137.0 \pm 19.1	121.8 \pm 6.6	136.8 \pm 6.1	137.0
TG	(mg/dL)	19.7 \pm 5.9	27.8 \pm 12.0	28.3 \pm 10.9	24.0
T-cho	(mg/dL)	75.7 \pm 10.4	67.5 \pm 8.8	77.3 \pm 6.3	79.0
Glucose	(mg/dL)	182.7 \pm 18.5	175.5 \pm 11.7	185.8 \pm 24.8	198.0
Albumin	(g/dL)	3.23 \pm 0.15	2.98 \pm 0.10	3.20 \pm 0.18	3.00

Values are expressed as the mean \pm S.D.

* $P < 0.05$, ** $P < 0.01$: Significantly different from CL solution.

Table 4-6 Blood chemistry in female mice

Study No. SBL366-003

Group		LRZ	LRZ	LRZ	LRZ
Dose ($\mu\text{g}/\text{kg}$)		0.005	0.5	50	5000
N		3	4	4	3
AST	(IU/L)	56.3 \pm 10.5	69.0 \pm 3.8*	66.5 \pm 14.8	70.7 \pm 11.6
ALT	(IU/L)	26.7 \pm 6.5	37.3 \pm 6.4	38.0 \pm 11.2	32.3 \pm 7.6
ALP	(IU/L)	287.7 \pm 19.5	268.0 \pm 69.3	276.5 \pm 66.4	314.7 \pm 70.5
T-Bil	(mg/dL)	0.037 \pm 0.021	0.070 \pm 0.014	0.043 \pm 0.021	0.060 \pm 0.026
TP	(g/dL)	4.33 \pm 0.25	4.70 \pm 0.27*	4.45 \pm 0.25	4.43 \pm 0.12
PL	(mg/dL)	136.0 \pm 2.6	122.8 \pm 11.8	134.8 \pm 12.9	128.7 \pm 26.5
TG	(mg/dL)	21.3 \pm 9.7	25.8 \pm 5.6	31.5 \pm 13.7*	18.7 \pm 8.6
T-cho	(mg/dL)	79.0 \pm 3.5	65.0 \pm 10.1*	75.0 \pm 12.7	72.0 \pm 16.1
Glucose	(mg/dL)	158.7 \pm 22.8	162.8 \pm 16.5	188.8 \pm 22.1	197.3 \pm 27.2
Albumin	(g/dL)	3.07 \pm 0.21	3.20 \pm 0.22	3.10 \pm 0.20	3.10 \pm 0.10

Values are expressed as the mean \pm S.D.

* $P < 0.05$: Significantly different from CL solution.

Necropsy

Grade

- 0 : No abnormal changes
- 1 : Slight
- 2 : Moderate
- 3 : Marked
- P : Non-graded changes

Table 5-1 Necropsy in male mice

Study No. SBL366-003

Findings	Group Dose ($\mu\text{g}/\text{kg}$) Grade	CL sollution					LRX 0.005					LRX 0.5					LRX 50					LRX 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
Spleen																										
Enlargement		5				0	3				0	4				0	3				1	1				3
Lymph node (Inguinal)																										
Enlargement, left		5				0	3				0	4				0	4				0	3				1
Enlargement, right		5				0	3				0	4				0	4				0	3				1

Numerals represent the number of animals.

Table 5-2 Necropsy in male mice

Study No. SBL366-003

Findings	Group Dose ($\mu\text{g}/\text{kg}$) Grade	LRY 0.005					LRY 0.5					LRY 50					LRY 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
Spleen Enlargement		3				0	4				0	2				2	1				0
Lymph node (Submandibular) Enlargement, left		3				0	4				0	3				1	1				0
Enlargement, right		3				0	4				0	3				1	1				0

Numerals represent the number of animals.

Table 5-3 Necropsy in male mice

Study No. SBL366-003

Findings	Group Dose ($\mu\text{g}/\text{kg}$) Grade	LRZ 0.005					LRZ 0.5					LRZ 50					LRZ 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
Spleen																					
Enlargement		2				1	4				0	3				1	2				2
Lymph node (Submandibular)																					
Enlargement, left		3				0	4				0	4				0	2				2
Enlargement, right		3				0	4				0	4				0	2				2
Lymph node (Inguinal)																					
Enlargement, left		3				0	4				0	4				0	2				2
Enlargement, right		3				0	4				0	4				0	2				2
Lymph node (Axillary)																					
Enlargement, left		3				0	4				0	4				0	3				1
Enlargement, right		3				0	4				0	4				0	3				1

Numerals represent the number of animals.

Table 5-4

Necropsy in female mice

Study No. SBL366-003

Findings	Group Dose ($\mu\text{g}/\text{kg}$) Grade	CL solution					LRX 0.005					LRX 0.5					LRX 50					LRX 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
Spleen Enlargement		5				0	2				1	3				1	2				2	3				0

Numerals represent the number of animals.

Table 5-5 Necropsy in female mice

Study No. SBL366-003

Findings	Group Dose (µg/kg) Grade	LRY 0.005					LRY 0.5					LRY 50					LRY 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
No abnormal changes		3					4					4					1				

Numerals represent the number of animals.

Table 5-6 Necropsy in female mice

Study No. SBL366-003

Findings	Group Dose (µg/kg) Grade	LRZ 0.005					LRZ 0.5					LRZ 50					LRZ 5000				
		0	1	2	3	P	0	1	2	3	P	0	1	2	3	P	0	1	2	3	P
Spleen Enlargement		3				0	3				1	4				0	2				1

Numerals represent the number of animals.

Table 6-1 Organ weight in male mice

Study No. SBL366-003

Group		CL sollution	LRX	LRX	LRX	LRX
Dose ($\mu\text{g}/\text{kg}$)			0.005	0.5	50	5000
N		5	3	4	4	4
Spleen	(mg)	118.6 \pm 17.7	174.7 \pm 24.7*	156.8 \pm 14.2	187.5 \pm 33.4**	224.8 \pm 36.5**
Liver	(mg)	1500.4 \pm 93.1	1668.3 \pm 119.9	1522.8 \pm 100.2	1570.8 \pm 170.3	1605.5 \pm 22.8

Values are expressed as the mean \pm S.D.* $P < 0.05$, ** $P < 0.01$: Significantly different from CL sollution.

Table 6-2 Organ weight in male mice

Study No. SBL366-003

Group	LRY	LRY	LRY	LRY
Dose ($\mu\text{g}/\text{kg}$)	0.005	0.5	50	5000
N	3	4	4	1
Spleen (mg)	126.3 \pm 6.5	144.8 \pm 16.5	208.3 \pm 37.2**	161.0
Liver (mg)	1448.3 \pm 72.0	1504.5 \pm 96.5	1581.3 \pm 69.6	1451.0

Values are expressed as the mean \pm S.D.** $P < 0.01$; Significantly different from CL solution.

Table 6-3 Organ weight in male mice

Study No. SBL366-003

Group	LRZ	LRZ	LRZ	LRZ
Dose ($\mu\text{g}/\text{kg}$)	0.005	0.5	50	5000
N	3	4	4	4
Spleen (mg)	174.3 \pm 59.1	180.5 \pm 17.8	170.8 \pm 57.1	226.8 \pm 66.8*
Liver (mg)	1624.7 \pm 174.6	1543.3 \pm 159.7	1573.8 \pm 79.9	1711.0 \pm 99.5

Values are expressed as the mean \pm S.D.* $P < 0.05$: Significantly different from CL solution.

Table 6-4 Organ weight in female mice

Study No. SBL366-003

Group		CL sollution	LRX	LRX	LRX	LRX
Dose ($\mu\text{g}/\text{kg}$)			0.005	0.5	50	5000
N		5	3	4	4	3
Spleen	(mg)	108.8 \pm 12.3	185.7 \pm 26.3*	131.8 \pm 54.0	190.5 \pm 37.1**	165.7 \pm 13.3
Liver	(mg)	1056.6 \pm 43.8	1127.7 \pm 109.7	1057.8 \pm 108.5	1203.8 \pm 95.0	1279.7 \pm 213.4

Values are expressed as the mean \pm S.D.

* P<0.05 , ** P<0.01 : Significantly different from CL sollution.

Table 6-5 Organ weight in female mice

Study No. SBL366-003

Group		LRY	LRY	LRY	LRY
Dose ($\mu\text{g}/\text{kg}$)		0.005	0.5	50	5000
N		3	4	4	1
Spleen	(mg)	129.3 \pm 29.0	149.3 \pm 30.3*	142.0 \pm 12.3	149.0
Liver	(mg)	1080.7 \pm 83.3	1136.3 \pm 97.3	1101.8 \pm 67.0	1122.0

Values are expressed as the mean \pm S.D.* $P < 0.05$: Significantly different from CL solution.

Table 6-6 Organ weight in female mice

Study No. SBL366-003

Group	LRZ	LRZ	LRZ	LRZ
Dose ($\mu\text{g}/\text{kg}$)	0.005	0.5	50	5000
N	3	4	4	3
Spleen (mg)	119.7 \pm 31.0	168.8 \pm 70.6	149.5 \pm 27.4	165.7 \pm 40.3
Liver (mg)	1122.0 \pm 49.5	1112.3 \pm 163.2	1152.3 \pm 58.7	1192.7 \pm 106.2

Values are expressed as the mean \pm S.D.
 Not significantly different from CL solution.