

系統名：Slc:SD

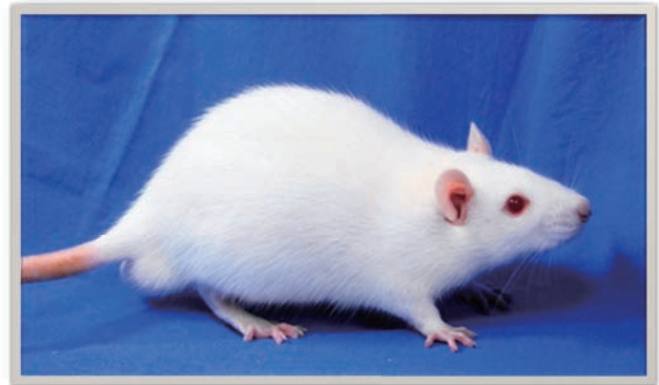
特徴

- 性質温順で取り扱いやすい
- 比較的大型で発育良好
- 繁殖性良好

用途

一般研究用として幅広い分野で使用される

- 安全性試験
- 毒性評価¹⁾
- 薬理試験
- 免疫および代謝



1) Tanaka *et al.* *J Toxicol Sci.* 2019. **44**:357-372.

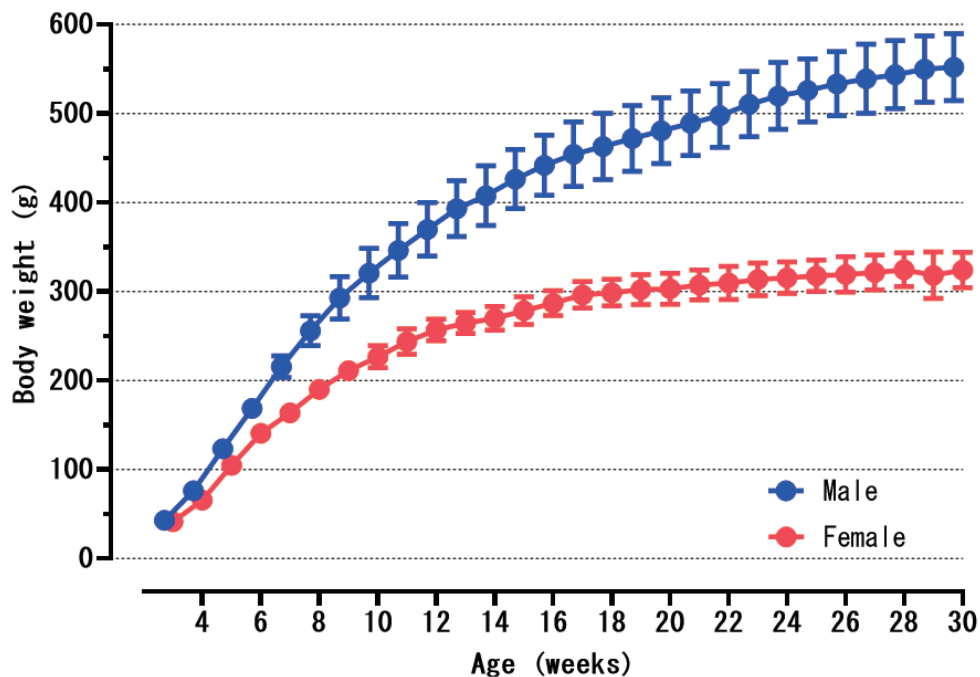
毛色

アルビノ

由来

1968年に米国チャールス・リバー社より導入

■体重曲線



		Age (weeks)																							
		3	4	5	6	7	8	9	10	11	12	13	14	15	16										
Male	Mean (g)	43.0	76.3	123.3	168.8	215.5	255.8	292.9	320.7	346.4	370.0	393.2	407.7	426.3	441.7										
	S.D.	0.8	3.1	5.9	9.4	12.2	16.8	23.7	27.6	30.2	30.4	31.5	33.4	33.3	34.1										
Female	Mean (g)	41.5	65.7	104.6	140.6	163.8	190.2	211.1	226.9	243.7	256.8	264.7	270.0	278.7	287.0										
	S.D.	1.1	3.6	5.7	6.2	8.8	9.7	10.5	12.5	14.4	12.2	11.9	13.5	15.6	14.1										
		Age (weeks)																							
		17	18	19	20	21	22	23	24	25	26	27	28	29	30										
Male	Mean (g)	454.1	463.1	472.0	480.7	489.0	497.7	510.4	519.8	525.9	533.3	539.0	543.8	549.8	552.0										
	S.D.	36.5	37.5	36.9	36.9	36.5	35.8	36.7	37.7	35.5	36.1	38.9	38.1	37.4	37.6										
Female	Mean (g)	296.3	298.8	302.2	303.2	307.3	309.5	313.5	315.4	317.7	319.3	321.3	324.6	318.4	324.3										
	S.D.	14.8	14.8	16.9	17.4	16.8	18.8	18.5	17.9	17.6	19.9	19.6	18.9	26.3	20.0										

飼料: 5L3R (PMI FEEDS)

■血液学的検査

Items	Unit	Male		Female	
		10 weeks n=9	30 weeks n=10	10 weeks n=10	30 weeks n=10
WBC	$\times 10^2/\mu\text{L}$	46.5 \pm 7.7	42.6 \pm 6.5	40.9 \pm 10.0	25.0 \pm 5.6
RBC	$\times 10^4/\mu\text{L}$	793.7 \pm 36.8	858.4 \pm 28.2	766.7 \pm 21.4	781.1 \pm 25.7
HGB	g/dL	14.9 \pm 0.9	13.8 \pm 0.5	14.3 \pm 0.4	14.2 \pm 0.4
HCT	%	46.6 \pm 5.3	42.4 \pm 1.2	42.8 \pm 1.2	42.8 \pm 1.2
MCV	fL	58.6 \pm 4.9	49.5 \pm 1.5	55.8 \pm 0.7	54.7 \pm 1.2
MCH	pg	18.8 \pm 0.8	16.1 \pm 0.6	18.6 \pm 0.3	18.2 \pm 0.5
MCHC	g/dL	32.1 \pm 1.6	32.6 \pm 0.5	33.3 \pm 0.6	33.2 \pm 0.3
PLT	$\times 10^4/\mu\text{L}$	98.1 \pm 6.7	88.2 \pm 6.8	104.1 \pm 10.6	86.1 \pm 4.3

Values are mean \pm S.D.
飼料:5L3R (PMI FEEDS)

■血液生化学的検査

Items	Unit	Male		Female	
		10 weeks n=10	30 weeks n=10	10 weeks n=10	30 weeks n=10
AST	U/L	142.7 \pm 29.1	138.8 \pm 26.2	143.3 \pm 45.8	213.3 \pm 123.0
ALT	U/L	49.2 \pm 16.6	56.5 \pm 11.1	47.4 \pm 24.4	71.9 \pm 34.3
ALP	U/L	944.9 \pm 273.8	295.1 \pm 53.6	538.7 \pm 112.1	143.1 \pm 64.5
ALB	g/dL	4.3 \pm 0.3	4.0 \pm 0.1	4.6 \pm 0.2	5.2 \pm 0.3
TP	g/dL	6.2 \pm 0.5	6.3 \pm 0.3	6.2 \pm 0.2	7.4 \pm 0.3
A/G		2.3 \pm 0.2	1.7 \pm 0.1	2.9 \pm 0.3	2.5 \pm 0.2
GLU	mg/dL	101.6 \pm 16.8	116.2 \pm 28.0	97.5 \pm 15.4	124.0 \pm 17.2
T-BIL	mg/dL	0.05 \pm 0.01	0.06 \pm 0.01	0.05 \pm 0.01	0.08 \pm 0.02
T-CHO	mg/dL	76.7 \pm 16.0	77.1 \pm 12.9	84.5 \pm 13.4	148.0 \pm 30.8
TG	mg/dL	49.9 \pm 8.1	64.8 \pm 23.8	35.5 \pm 11.2	58.9 \pm 20.1
PL	mg/dL	108.6 \pm 20.0	104.0 \pm 12.4	127.8 \pm 17.5	232.2 \pm 45.2
Ca	mg/dL	10.0 \pm 1.2	9.3 \pm 0.3	9.6 \pm 0.2	10.0 \pm 0.3
IP	mg/dL	9.1 \pm 3.7	5.1 \pm 0.3	7.1 \pm 0.9	4.7 \pm 0.6
BUN	mg/dL	12.6 \pm 1.9	12.4 \pm 1.2	12.8 \pm 1.2	14.5 \pm 3.1
CRE	mg/dL	0.25 \pm 0.03	0.33 \pm 0.04	0.26 \pm 0.02	0.32 \pm 0.03
Na	mEq/L	145.6 \pm 3.8	143.9 \pm 1.8	143.8 \pm 1.2	142.4 \pm 1.1
K	mEq/L	5.3 \pm 1.2	4.8 \pm 0.2	4.5 \pm 0.3	4.3 \pm 0.2
Cl	mEq/L	101.6 \pm 1.4	102.1 \pm 1.4	103.6 \pm 1.1	102.0 \pm 1.3

Values are mean \pm S.D.
飼料:5L3R (PMI FEEDS)

■器官重量

Items	Unit	Male		Female	
		10 weeks n=10	30 weeks n=10	10 weeks n=10	30 weeks n=10
Body weight	g	329.6 ± 25.7	535.8 ± 38.6	208.9 ± 13.3	312.5 ± 19.4
Absolute organ weight					
Brain	g	2.011 ± 0.058	2.166 ± 0.080	1.912 ± 0.064	2.034 ± 0.039
Heart	g	1.027 ± 0.105	1.296 ± 0.091	0.680 ± 0.052	0.887 ± 0.051
Lung	g	1.236 ± 0.090	1.647 ± 0.144	0.970 ± 0.091	1.212 ± 0.052
Kidney (L)	g	1.170 ± 0.114	1.320 ± 0.119	0.729 ± 0.051	0.944 ± 0.047
(R)	g	1.147 ± 0.133	1.289 ± 0.104	0.738 ± 0.057	0.941 ± 0.058
Spleen	g	0.578 ± 0.076	0.791 ± 0.131	0.403 ± 0.037	0.536 ± 0.049
Liver	g	9.816 ± 0.999	12.496 ± 1.548	6.100 ± 0.626	7.898 ± 0.733
Testis (L)	g	1.585 ± 0.178	1.795 ± 0.132		
(R)	g	1.564 ± 0.162	1.751 ± 0.152		
Ovary (L)	mg			37.7 ± 3.5	43.1 ± 7.5
(R)	mg			38.2 ± 4.0	41.1 ± 7.1
Uterus	g			0.364 ± 0.088	0.637 ± 0.058
Adrenal (L)	mg	24.5 ± 4.2	23.9 ± 2.5	29.3 ± 6.1	29.2 ± 2.3
(R)	mg	22.6 ± 5.1	22.6 ± 2.5	27.0 ± 3.4	28.0 ± 3.0
Thymus	g	0.462 ± 0.087	0.227 ± 0.033	0.393 ± 0.034	0.247 ± 0.030
Pituitary	mg	10.1 ± 1.6	12.0 ± 1.4	12.2 ± 1.8	25.2 ± 6.7
Thyroid gland	mg	10.2 ± 2.9	24.5 ± 8.7	9.5 ± 1.6	15.8 ± 4.4
Salivary gland (L)	g	0.292 ± 0.030	0.367 ± 0.025	0.199 ± 0.011	0.249 ± 0.026
(R)	g	0.293 ± 0.025	0.366 ± 0.026	0.200 ± 0.014	0.249 ± 0.027
Relative organ weight					
Brain	g%	0.61 ± 0.05	0.41 ± 0.03	0.92 ± 0.07	0.65 ± 0.04
Heart	g%	0.31 ± 0.02	0.24 ± 0.01	0.33 ± 0.01	0.28 ± 0.02
Lung	g%	0.38 ± 0.03	0.31 ± 0.02	0.46 ± 0.03	0.39 ± 0.02
Kidney (L)	g%	0.36 ± 0.03	0.25 ± 0.02	0.35 ± 0.02	0.30 ± 0.02
(R)	g%	0.35 ± 0.03	0.24 ± 0.02	0.35 ± 0.02	0.30 ± 0.01
Spleen	g%	0.18 ± 0.02	0.15 ± 0.02	0.19 ± 0.01	0.17 ± 0.01
Liver	g%	2.98 ± 0.21	2.33 ± 0.19	2.92 ± 0.14	2.53 ± 0.16
Testis (L)	g%	0.48 ± 0.06	0.34 ± 0.02		
(R)	g%	0.48 ± 0.06	0.33 ± 0.02		
Ovary (L)	mg%			18.08 ± 1.52	13.78 ± 2.12
(R)	mg%			18.30 ± 1.72	13.15 ± 2.04
Uterus	g%			0.17 ± 0.04	0.20 ± 0.02
Adrenal (L)	mg%	7.47 ± 1.33	4.49 ± 0.61	13.99 ± 2.52	9.37 ± 0.90
(R)	mg%	6.90 ± 1.64	4.23 ± 0.48	12.91 ± 1.51	9.00 ± 1.24
Thymus	g%	0.14 ± 0.02	0.04 ± 0.01	0.19 ± 0.02	0.08 ± 0.01
Pituitary	mg%	3.05 ± 0.35	2.24 ± 0.20	5.81 ± 0.54	8.07 ± 2.03
Thyroid gland	mg%	3.10 ± 0.83	4.57 ± 1.54	4.57 ± 0.77	5.08 ± 1.52
Salivary gland (L)	g%	0.09 ± 0.01	0.07 ± 0.01	0.10 ± 0.01	0.08 ± 0.01
(R)	g%	0.09 ± 0.00	0.07 ± 0.01	0.10 ± 0.01	0.08 ± 0.01

Values are mean ± S.D.
飼料:5L3R (PMI FEEDS)

■病理組織学的検査

Organs	Histopathological findings	Male	Female
		30 weeks (N=10)	30 weeks (N=10)
Heart	fibrosis	1/10	0/10
Lung	foam cell accumulation	1/10	1/10
	calcification	1/10	0/10
Kidney	protein cast	3/10	3/10
	calcification	2/10	10/10
	tubular hyperplasia	5/10	1/10
	fibrosis	1/10	0/10
Spleen	pigmentation	9/10	10/10
Liver	microgranuloma	4/10	1/10
	bile duct hyperplasia	1/10	0/10
	cellular infiltration	1/10	0/10
Thyroid gland	persistent ultimobranchial body	5/10	4/10
Pituitary	adenoma of anterior lobe	0/10	3/10