

條件一覽

血液學檢查及血液生化學檢查, 除特別記載者外, 均在以下條件下實施。

血液學檢查

禁食)	約16小時
麻醉)	異氟醚(Isoflurane)吸入麻醉
採血部位)	後腔靜脈superior vena cava(小鼠、倉鼠)、腹主動脈abdominal aorta(大鼠、天竺鼠)
檢體)	血液(添加 Anglot/ET[Alfresa Pharma]抗凝劑)
測定機器)	全自動血液分析儀 (ADVIA 2120;Siemens Healthcare Diagnostics K.K)

檢查項目

WBC	: 白血球數
RBC	: 紅血球數
HGB	: 血色素量(血紅素)
HCT	: 血容比
MCV	: 平均紅血球體積
MCH	: 平均紅血球血色素量
MCHC	: 平均紅血球血色素濃度
PLT	: 血小板數

血液生化學檢查

禁食)	約16時間
麻醉)	異氟醚(Isoflurane)吸入麻醉
採血部位)	腹腔靜脈 superior vena cava (小鼠、倉鼠)、腹主動脈abdominal aorta(大鼠、天竺鼠)
檢體)	血清(於 -80℃保存)
測定機器)	全自動生化分析儀(7180;Hitachi High-Tech Corporation)

檢查項目	檢查方法
AST	: 天門冬氨酸氨基轉移酶
ALT	: 丙氨酸氨基轉移酶
ALP	: 鹼性磷酸酶
ALB	: 白蛋白
TP	: 總蛋白
A/G	: 白蛋白
GLU	: 葡萄糖
T-BIL	: 總膽紅素
T-CHO	: 總膽固醇
TG	: 中性脂肪(三酸甘油酯)
PL	: 磷脂質
Ca	: 鈣
IP	: 無機磷
BUN	: 尿素氮
CRE	: 肌酸酐
Na	: 鈉
K	: 鉀
Cl	: 氯

- 1), 2) 於近交系小鼠、大鼠中採用
- 3) 於 Slc: Hartley(天竺鼠)中採用

在本數據的採集過程中, 我們遵守了以下法律、標準、指南, 並基於「日本エスエルシー株式会社(日本SLC株式會社)實驗動物福利規程」實施:《動物の愛護及び管理に関する法律》(昭和48年10月1日 法律第105號, 修訂: 令和元年6月19日 法律第39號 環境省)。《実験動物の飼養及び保管並びに苦痛の軽減に関する基準》(修訂: 平成25年8月30日 環境省告示第84號)。《動物の殺処分方法に関する指針》(修訂: 平成19年11月12日 環境省告示第105號)。《日本エスエルシー株式会社実験動物福祉規程》(平成18年6月1日 日本學術會議)

品系： Slc:ddY

特色

- 生長發育及繁殖能力良好

用途

廣泛應用於各類一般研究

- 疫苗測試
- 毒性測試



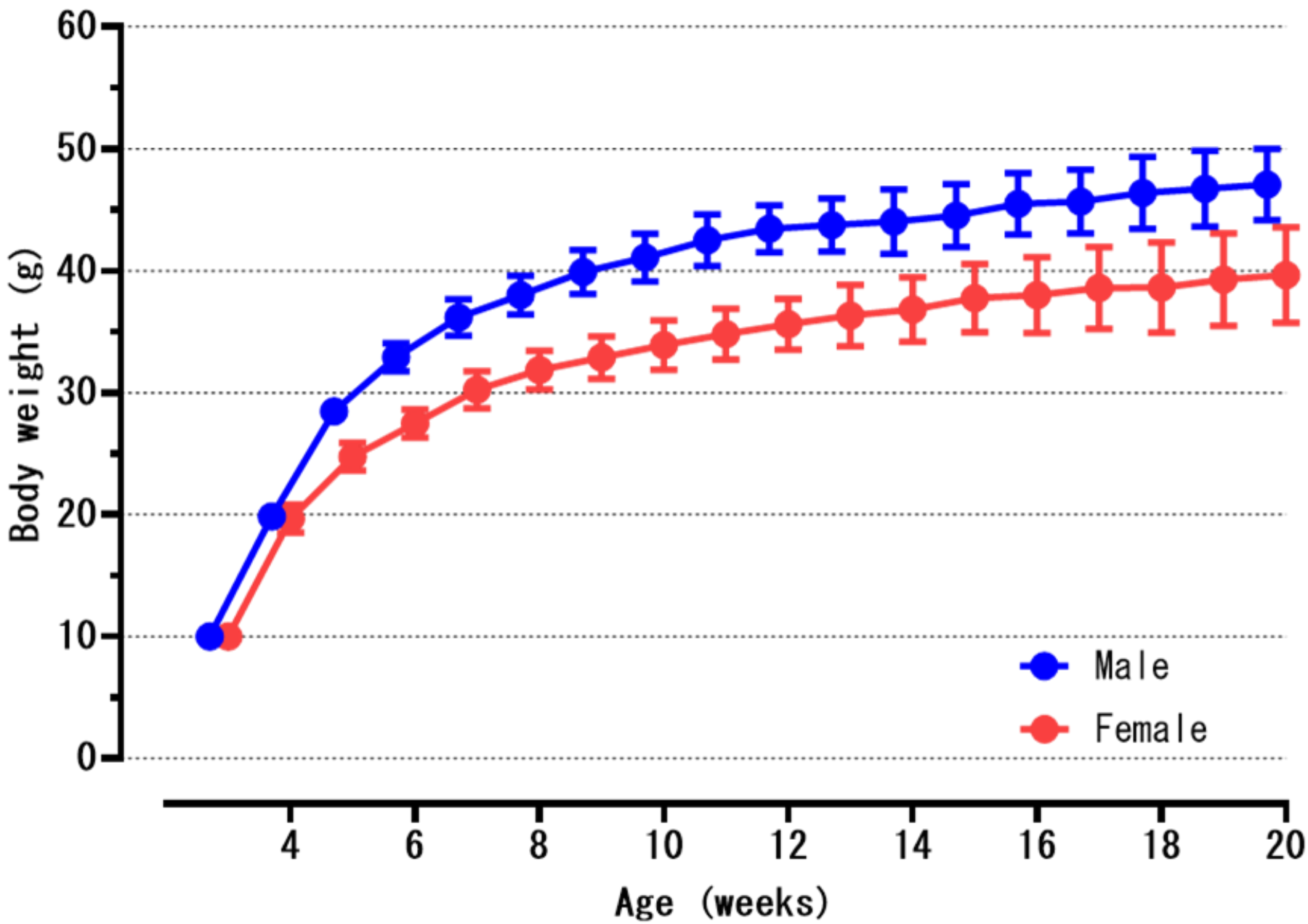
毛色

白化型 (Albino)

來源

1963 年自國立預防衛生研究所(現為國立健康危機管理研究機構國立感染症研究所)引進。

■ 體重曲線



	Age (weeks)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Mean (g)	10.0	19.8	28.5	32.9	36.2	38.0	39.9	41.1	42.5	43.5	43.8	44.0	44.5	45.5	45.7	46.4	46.7	47.1
S.D.	0.0	0.7	1.0	1.1	1.5	1.6	1.8	2.0	2.1	1.9	2.2	2.7	2.6	2.5	2.6	3.0	3.1	2.9
Mean (g)	10.0	19.7	24.8	27.5	30.3	31.9	32.9	33.9	34.8	35.6	36.3	36.8	37.7	38.0	38.6	38.6	39.3	39.6
S.D.	0.0	1.1	1.2	1.2	1.5	1.6	1.7	2.0	2.1	2.1	2.5	2.6	2.8	3.1	3.4	3.7	3.8	3.9

■血液學的檢查

Items	Unit	Male		Female	
		10 weeks	20 weeks	10 weeks	20 weeks
		n=10	n=10	n=10	n=10
WBC	× 10 ² /μL	31.2 ± 10.2	44.1 ± 20.5	33.6 ± 7.6	26.4 ± 5.2
RBC	× 10 ⁴ /μL	946.3 ± 35.5	919.1 ± 37.6	958.4 ± 40.9	912.9 ± 34.6
HGB	g/dL	14.6 ± 0.5	13.8 ± 0.7	15.2 ± 0.6	13.7 ± 0.6
HCT	%	50.8 ± 1.7	47.0 ± 2.1	52.5 ± 2.1	46.4 ± 1.4
MCV	fL	53.7 ± 1.6	51.1 ± 1.6	54.8 ± 1.5	50.8 ± 1.3
MCH	pg	15.5 ± 0.4	15.0 ± 0.4	15.9 ± 0.3	15.0 ± 0.5
MCHC	g/dL	28.8 ± 0.7	29.4 ± 0.6	29.0 ± 0.6	29.6 ± 0.7
PLT	× 10 ⁴ /μL	103.5 ± 10.4	100.2 ± 27.0	94.0 ± 10.4	99.3 ± 8.5

Values are mean ± S.D.
飼料: ラボM-A2(日本農産工業)

■血液生化學檢查

Items	Unit	Male		Female	
		10 weeks	20 weeks	10 weeks	20 weeks
		n=10	n=9	n=10	n=10
AST	U/L	69.2 ± 25.5	61.6 ± 22.0	49.1 ± 13.1	56.9 ± 34.8
ALT	U/L	49.7 ± 22.8	33.6 ± 8.8	25.6 ± 9.7	30.7 ± 24.4
ALP	U/L	131.7 ± 46.3	179.4 ± 79.4	139.2 ± 39.8	122.8 ± 43.5
ALB	g/dL	3.3 ± 0.2	3.4 ± 0.1	3.4 ± 0.3	3.4 ± 0.2
TP	g/dL	5.0 ± 0.2	5.1 ± 0.2	4.9 ± 0.4	5.1 ± 0.3
A/G		2.0 ± 0.1	1.9 ± 0.1	2.3 ± 0.2	2.1 ± 0.2
GLU	mg/dL	129.9 ± 18.3	86.2 ± 26.9	120.5 ± 23.0	100.0 ± 16.7
T-BIL	mg/dL	0.15 ± 0.05	0.14 ± 0.04	0.05 ± 0.01	0.06 ± 0.03
T-CHO	mg/dL	137.0 ± 22.6	132.7 ± 19.1	93.8 ± 20.6	105.0 ± 27.9
TG	mg/dL	103.2 ± 23.2	55.0 ± 14.2	103.4 ± 51.3	88.2 ± 28.2
PL	mg/dL	250.3 ± 28.0	233.2 ± 22.6	167.2 ± 27.5	183.6 ± 33.3
Ca	mg/dL	9.8 ± 0.2	9.6 ± 0.5	10.1 ± 0.3	9.9 ± 0.3
IP	mg/dL	7.6 ± 0.9	7.3 ± 3.1	7.8 ± 0.7	8.0 ± 0.7
BUN	mg/dL	24.1 ± 4.2	29.1 ± 4.3	21.4 ± 3.3	18.7 ± 3.8
CRE	mg/dL	0.11 ± 0.02	0.14 ± 0.03	0.09 ± 0.02	0.12 ± 0.02
Na	mEq/L	154.6 ± 1.0	156.8 ± 2.7	156.5 ± 4.6	157.3 ± 2.2
K	mEq/L	4.2 ± 0.5	4.9 ± 0.7	4.9 ± 0.7	4.2 ± 0.4
Cl	mEq/L	116.1 ± 1.3	118.6 ± 2.4	119.7 ± 4.5	119.3 ± 2.6

Values are mean ± S.D.
飼料: ラボM-A2(日本農産工業)

■器官重量

Items	Unit	Male		Female	
		10 weeks n=20	20 weeks n=19	10 weeks n=20	20 weeks n=20
Body weight	g	38.9 ± 1.6	43.7 ± 3.1	32.5 ± 2.0	37.0 ± 3.8
Absolute organ weight					
Brain	g	0.466 ± 0.020	0.472 ± 0.021	0.471 ± 0.021	0.468 ± 0.020
Heart	g	0.168 ± 0.011	0.188 ± 0.015	0.134 ± 0.012	0.138 ± 0.013
Lung	g	0.206 ± 0.020	0.208 ± 0.017	0.187 ± 0.015	0.190 ± 0.013
Kidney (L)	g	0.275 ± 0.041	0.274 ± 0.037	0.178 ± 0.017	0.184 ± 0.018
(R)	g	0.290 ± 0.040	0.296 ± 0.036	0.186 ± 0.017	0.194 ± 0.027
Spleen	g	0.105 ± 0.016	0.095 ± 0.026	0.115 ± 0.022	0.107 ± 0.022
Liver	g	1.490 ± 0.100	1.420 ± 0.123	1.295 ± 0.122	1.298 ± 0.139
Testis (L)	g	0.132 ± 0.018	0.140 ± 0.016		
(R)	g	0.141 ± 0.018	0.144 ± 0.016		
Ovary (L)	mg			9.3 ± 3.4	8.0 ± 1.7
(R)	mg			9.0 ± 3.0	8.1 ± 2.4
Uterus	g			0.146 ± 0.051	0.161 ± 0.054
Thymus	g	0.042 ± 0.009	0.025 ± 0.006	0.057 ± 0.010	0.039 ± 0.007
Salivary gland (L)	g	0.103 ± 0.012	0.124 ± 0.021	0.069 ± 0.009	0.069 ± 0.011
(R)	g	0.103 ± 0.011	0.125 ± 0.019	0.069 ± 0.008	0.072 ± 0.013
Relative organ weight					
Brain	g%	1.20 ± 0.06	1.09 ± 0.10	1.45 ± 0.12	1.28 ± 0.14
Heart	g%	0.43 ± 0.02	0.43 ± 0.04	0.41 ± 0.04	0.38 ± 0.05
Lung	g%	0.53 ± 0.05	0.48 ± 0.04	0.58 ± 0.04	0.52 ± 0.06
Kidney (L)	g%	0.70 ± 0.09	0.63 ± 0.08	0.55 ± 0.05	0.50 ± 0.06
(R)	g%	0.74 ± 0.08	0.68 ± 0.08	0.57 ± 0.04	0.53 ± 0.08
Spleen	g%	0.27 ± 0.04	0.22 ± 0.07	0.36 ± 0.07	0.29 ± 0.07
Liver	g%	3.83 ± 0.23	3.26 ± 0.20	3.98 ± 0.29	3.52 ± 0.28
Testis (L)	g%	0.34 ± 0.05	0.32 ± 0.04		
(R)	g%	0.36 ± 0.05	0.33 ± 0.04		
Ovary (L)	mg%			28.60 ± 10.50	21.81 ± 4.65
(R)	mg%			27.53 ± 8.85	22.03 ± 6.40
Uterus	g%			0.45 ± 0.16	0.44 ± 0.16
Thymus	g%	0.11 ± 0.02	0.06 ± 0.01	0.18 ± 0.03	0.11 ± 0.03
Salivary gland (L)	g%	0.26 ± 0.03	0.29 ± 0.05	0.21 ± 0.03	0.19 ± 0.03
(R)	g%	0.26 ± 0.03	0.29 ± 0.04	0.21 ± 0.02	0.20 ± 0.04

Values are mean ± S.D.
飼料:ラボM-A2(日本農産工業)

品系： Slc:ICR

特色

- 體型較大, 生長發育良好
- 性情溫馴, 易於操作
- 繁殖性良好

用途

廣泛應用於全球各領域的一般研究

- 安全性試驗
- 毒性評估^{1), 2)}
- 藥效試驗^{3), 4)}
- 免疫試驗
- 妊娠動物的建立



1) Nakajima et al. Food Chem Toxicol. 2020. 136:111046.
2) Yamaguchi et al. Toxins (Basel). 2025. 17:318.
3) Yasuda et al. J Pharmacol Sci. 2025. 158:368–372.
4) Akiyama et al. Sci Rep. 2022. 12:11385.

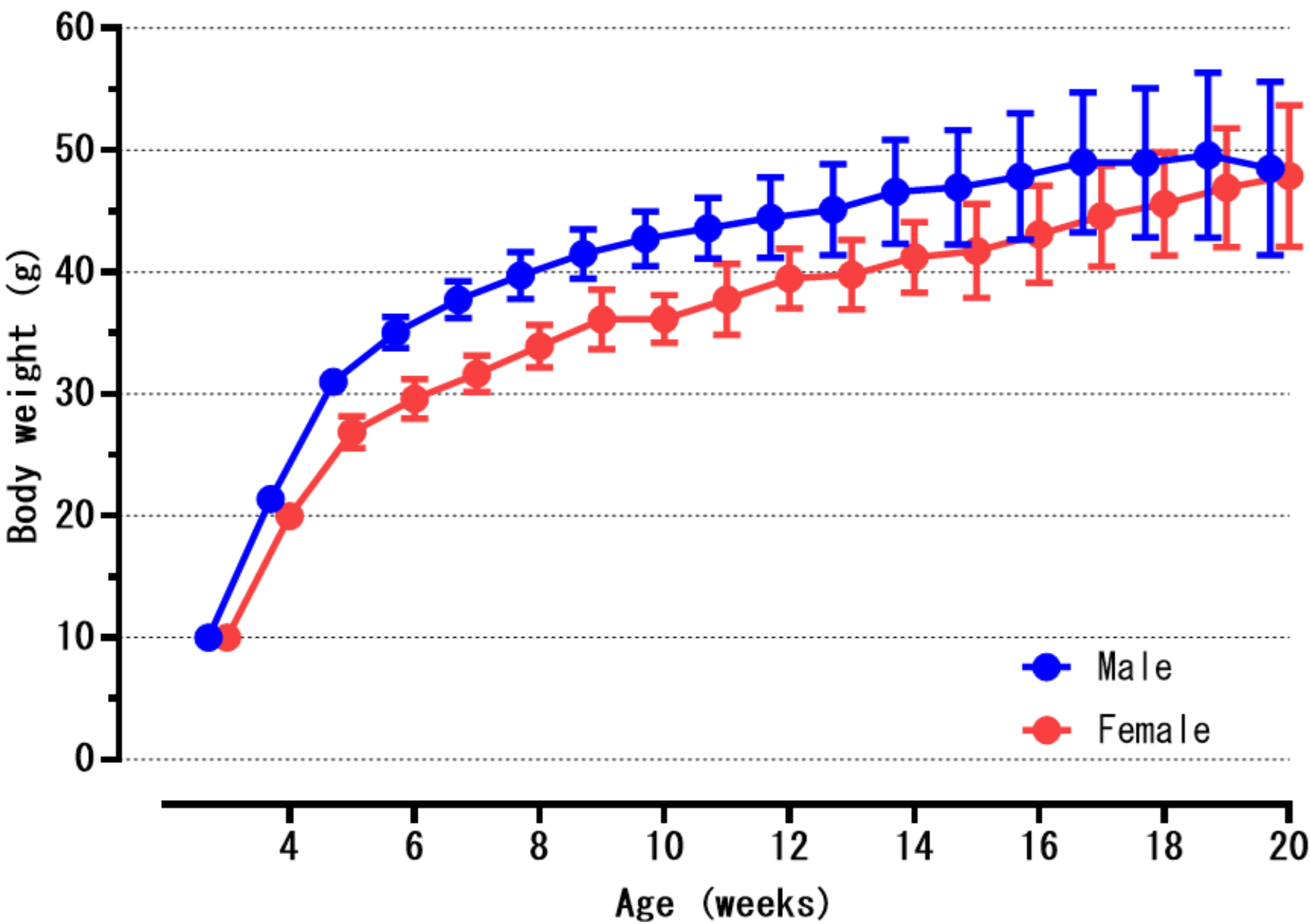
毛色

白化型 (Albino)

來源

1965 年自美國 Charles River Laboratories 引進(源自白化瑞士小鼠)

■ 體重曲線



		Age (weeks)																	
Male (n=20)	Mean (g)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	S.D.	0.0	0.5	1.0	1.3	1.5	1.9	2.0	2.3	2.5	3.3	3.7	4.3	4.7	5.2	5.7	6.1	6.8	7.1
Female (n=20)	Mean (g)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	S.D.	0.0	0.8	1.3	1.6	1.5	1.8	2.5	2.0	2.9	2.5	2.9	2.9	3.8	4.0	4.1	4.2	4.9	5.8

飼料: ラボM-A2(日本農産工業)

■血液學検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=10
WBC	× 10 ² /μL	30.8 ± 6.1	36.0 ± 14.6	50.1 ± 5.0	45.1 ± 16.4
RBC	× 10 ⁴ /μL	943.6 ± 38.9	906.2 ± 38.8	943.7 ± 36.2	945.6 ± 32.2
HGB	g/dL	15.0 ± 0.5	14.1 ± 0.7	15.3 ± 0.6	15.1 ± 0.6
HCT	%	52.8 ± 1.6	48.3 ± 1.7	52.8 ± 1.5	50.8 ± 2.2
MCV	fL	56.0 ± 1.0	53.4 ± 1.1	56.0 ± 1.2	53.7 ± 1.4
MCH	pg	15.9 ± 0.3	15.6 ± 0.6	16.2 ± 0.5	15.9 ± 0.5
MCHC	g/dL	28.5 ± 0.4	29.2 ± 0.8	29.0 ± 0.6	29.7 ± 0.6
PLT	× 10 ⁴ /μL	113.7 ± 9.9	124.7 ± 14.0	104.9 ± 20.8	116.1 ± 20.0

Values are mean ± S.D.
飼料: ラボM-A2(日本農産工業)

■血液生化学検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=9	10 weeks n=10	20 weeks n=10
AST	U/L	70.4 ± 13.5	108.4 ± 54.6	64.1 ± 7.1	77.3 ± 14.8
ALT	U/L	39.1 ± 9.9	47.2 ± 7.0	33.9 ± 7.0	42.2 ± 13.1
ALP	U/L	85.0 ± 39.2	63.6 ± 28.2	103.9 ± 31.9	74.1 ± 27.9
ALB	g/dL	3.1 ± 0.2	3.0 ± 0.4	3.4 ± 0.2	3.6 ± 0.1
TP	g/dL	5.0 ± 0.2	5.6 ± 1.1	4.9 ± 0.2	5.3 ± 0.2
A/G		1.7 ± 0.2	1.4 ± 0.4	2.3 ± 0.1	2.1 ± 0.2
GLU	mg/dL	135.1 ± 25.7	98.9 ± 32.4	113.2 ± 16.8	126.3 ± 21.0
T-BIL	mg/dL	0.16 ± 0.04	0.18 ± 0.08	0.06 ± 0.02	0.07 ± 0.01
T-CHO	mg/dL	123.2 ± 34.6	102.1 ± 24.7	79.7 ± 14.9	91.7 ± 20.5
TG	mg/dL	116.3 ± 40.9	93.8 ± 73.7	118.2 ± 55.2	108.8 ± 57.0
PL	mg/dL	231.5 ± 43.8	188.9 ± 52.3	148.9 ± 20.6	168.0 ± 30.4
Ca	mg/dL	9.3 ± 0.3	9.8 ± 0.5	9.6 ± 0.4	10.1 ± 0.3
IP	mg/dL	6.3 ± 0.7	7.8 ± 0.8	7.7 ± 1.2	8.2 ± 0.8
BUN	mg/dL	28.4 ± 5.9	28.2 ± 9.9	17.7 ± 3.3	18.9 ± 3.4
CRE	mg/dL	0.15 ± 0.04	0.12 ± 0.04	0.12 ± 0.03	0.12 ± 0.02
Na	mEq/L	156.0 ± 1.5	163.4 ± 2.5	156.8 ± 1.5	162.4 ± 3.9
K	mEq/L	4.6 ± 0.3	4.7 ± 0.4	4.4 ± 0.2	4.5 ± 0.4
Cl	mEq/L	116.7 ± 4.8	121.5 ± 3.9	117.3 ± 2.2	120.7 ± 3.9

Values are mean ± S.D.
飼料: ラボM-A2(日本農産工業)

■器官重量

Items	Unit	Male		Female	
		10 weeks n=20	20 weeks n=20	10 weeks n=20	20 weeks n=20
Body weight	g	38.5 ± 3.2	44.7 ± 6.8	31.9 ± 2.8	44.2 ± 5.3
Absolute organ weight					
Brain	g	0.476 ± 0.031	0.480 ± 0.019	0.484 ± 0.027	0.506 ± 0.024
Heart	g	0.172 ± 0.013	0.191 ± 0.022	0.134 ± 0.013	0.150 ± 0.014
Lung	g	0.205 ± 0.021	0.217 ± 0.022	0.186 ± 0.024	0.208 ± 0.019
Kidney (L)	g	0.284 ± 0.032	0.303 ± 0.044	0.190 ± 0.019	0.212 ± 0.020
(R)	g	0.305 ± 0.029	0.315 ± 0.035	0.200 ± 0.023	0.228 ± 0.026
Spleen	g	0.116 ± 0.030	0.163 ± 0.161	0.117 ± 0.027	0.131 ± 0.028
Liver	g	1.572 ± 0.151	1.638 ± 0.248	1.307 ± 0.183	1.566 ± 0.176
Testis (L)	g	0.130 ± 0.028	0.132 ± 0.009		
(R)	g	0.134 ± 0.020	0.140 ± 0.010		
Ovary (L)	mg			11.0 ± 4.4	15.1 ± 4.4
(R)	mg			11.0 ± 3.5	15.3 ± 5.0
Uterus	g			0.157 ± 0.069	0.170 ± 0.048
Thymus	g	0.037 ± 0.013	0.026 ± 0.011	0.045 ± 0.009	0.035 ± 0.010
Salivary gland (L)	g	0.120 ± 0.023	0.125 ± 0.015	0.081 ± 0.020	0.085 ± 0.012
(R)	g	0.112 ± 0.012	0.128 ± 0.015	0.072 ± 0.010	0.083 ± 0.013
Relative organ weight					
Brain	g%	1.24 ± 0.09	1.10 ± 0.17	1.52 ± 0.11	1.16 ± 0.11
Heart	g%	0.45 ± 0.03	0.43 ± 0.06	0.42 ± 0.04	0.34 ± 0.04
Lung	g%	0.53 ± 0.05	0.50 ± 0.09	0.59 ± 0.08	0.47 ± 0.05
Kidney (L)	g%	0.74 ± 0.09	0.68 ± 0.08	0.59 ± 0.05	0.48 ± 0.06
(R)	g%	0.80 ± 0.09	0.71 ± 0.09	0.63 ± 0.06	0.52 ± 0.06
Spleen	g%	0.30 ± 0.07	0.40 ± 0.54	0.36 ± 0.07	0.30 ± 0.06
Liver	g%	4.09 ± 0.20	3.68 ± 0.32	4.08 ± 0.37	3.56 ± 0.27
Testis (L)	g%	0.34 ± 0.10	0.30 ± 0.05		
(R)	g%	0.35 ± 0.06	0.32 ± 0.05		
Ovary (L)	mg%			34.22 ± 13.64	34.82 ± 11.62
(R)	mg%			34.51 ± 10.74	35.40 ± 13.97
Uterus	g%			0.48 ± 0.19	0.39 ± 0.11
Thymus	g%	0.09 ± 0.03	0.06 ± 0.02	0.14 ± 0.02	0.08 ± 0.02
Salivary gland (L)	g%	0.31 ± 0.07	0.28 ± 0.04	0.26 ± 0.07	0.19 ± 0.03
(R)	g%	0.29 ± 0.03	0.29 ± 0.04	0.23 ± 0.04	0.19 ± 0.03

Values are mean ± S.D.
飼料: ラボM-A2(日本農産工業)

品系： BALB/cCrSlc

- 特色
- 以體重比例而言，網狀內皮系統(RES)器官較大
 - 對 X 光照射具有極高敏感性
 - 隨年齡增加，心臟鈣化發生率較高 ¹⁾
 - 雄鼠自較年輕時期即容易發生打鬥
 - Th2 型免疫反應較強 ²⁾

- 用途
- 免疫學研究 ³⁾
 - 過敏／過敏性疾病研究(如氣喘、皮膚炎等) ^{4), 5), 6)}
 - 單株抗體製備等

毛色
白化型(AAbbccDD)

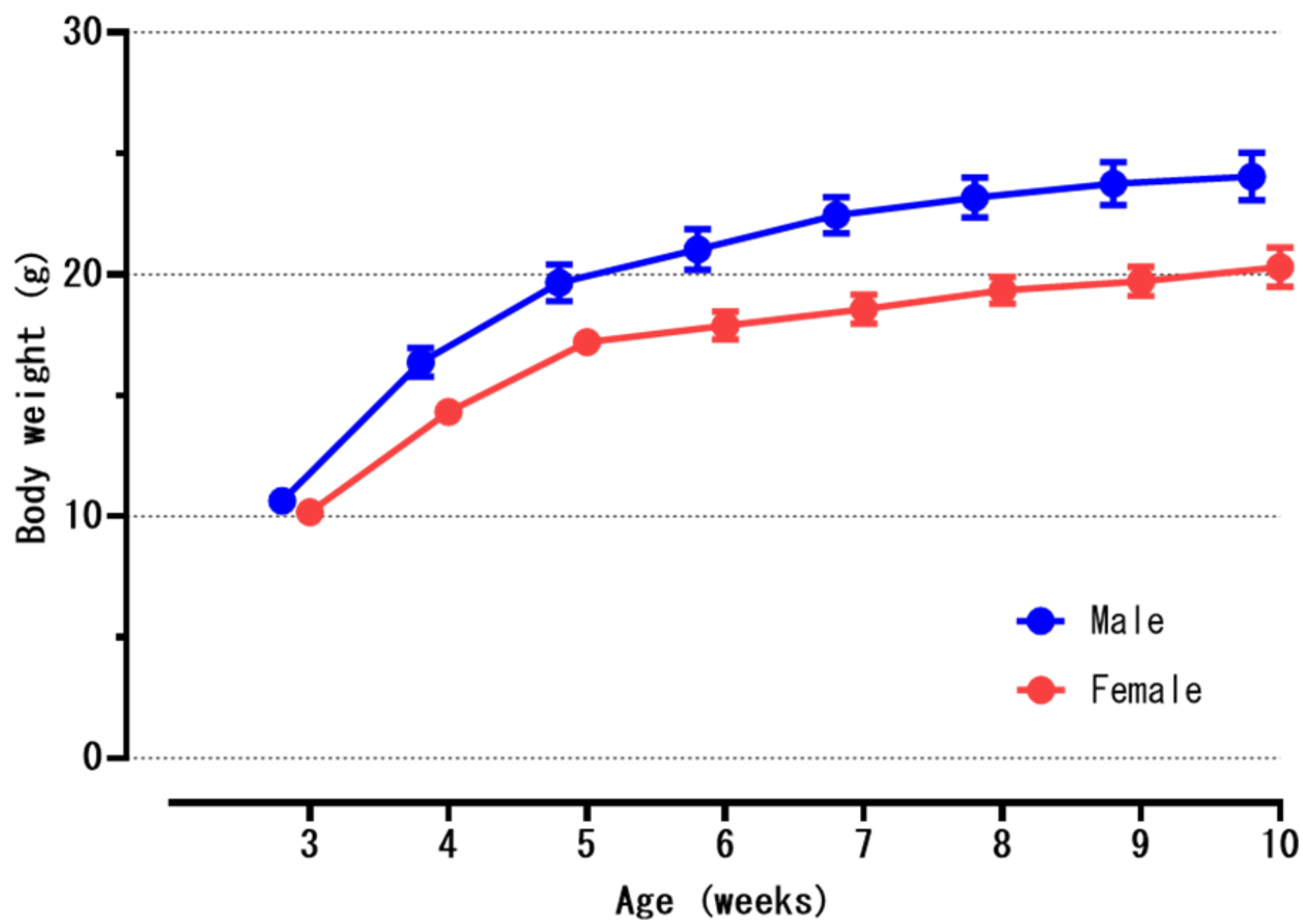
H-2單體型
H2^d

來源
1975 年自東京大學醫科學研究所引進



1) Glass et al. Comp Med. 2013. 63:29–37.
2) Autenrieth et al. Infect Immun. 1994. 62:2590–2599.
3) Aihara et al. Am J Pathol. 2015. 185:172–184.
4) Yamaguchi et al. J Appl Toxicol. 2023. 43:1284–1292.
5) Ohira et al. Arch Toxicol. 2023. 97:3151–3162.
6) Miyamoto et al. Toxins (Basel). 2025. 17:47.

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	10.6	16.4	19.7	21.0	22.4	23.2	23.8	24.1
	S.D.	0.2	0.6	0.8	0.8	0.7	0.8	0.9	1.0
Female (n=20)	Mean (g)	10.2	14.3	17.2	17.9	18.6	19.3	19.7	20.3
	S.D.	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.8

小鼠(Inbred)

BALB/cCrSlc

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	30.7 ± 5.6	46.6 ± 13.2
RBC	× 10 ⁴ /μL	960.4 ± 27.5	912.1 ± 29.8
HGB	g/dL	15.0 ± 0.4	14.8 ± 0.4
HCT	%	46.4 ± 1.2	45.7 ± 1.3
MCV	fL	48.3 ± 0.6	50.0 ± 0.5
MCH	pg	15.7 ± 0.2	16.3 ± 0.1
MCHC	g/dL	32.3 ± 0.5	32.5 ± 0.2
PLT	× 10 ⁴ /μL	116.1 ± 6.3	104.5 ± 5.2

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	61.1 ± 18.3	81.1 ± 16.0
ALT	U/L	32.4 ± 6.5	47.9 ± 13.4
ALP	U/L	112.4 ± 6.9	117.9 ± 8.0
ALB	g/dL	3.1 ± 0.1	3.3 ± 0.1
TP	g/dL	4.7 ± 0.2	4.7 ± 0.2
A/G		2.0 ± 0.1	2.5 ± 0.2
GLU	mg/dL	102.5 ± 12.0	120.0 ± 17.0
T-BIL	mg/dL	0.06 ± 0.01	0.03 ± 0.01
T-CHO	mg/dL	94.4 ± 9.0	77.2 ± 6.0
TG	mg/dL	112.2 ± 23.0	72.7 ± 21.1
PL	mg/dL	186.0 ± 13.2	144.8 ± 10.9
Ca	mg/dL	8.1 ± 0.2	8.5 ± 0.2
IP	mg/dL	10.2 ± 1.1	10.4 ± 1.2
BUN	mg/dL	23.7 ± 1.8	20.3 ± 1.4
CRE	mg/dL	0.09 ± 0.02	0.08 ± 0.02
Na	mEq/L	154.0 ± 0.9	154.2 ± 1.1
K	mEq/L	4.3 ± 0.4	4.6 ± 0.4
Cl	mEq/L	113.6 ± 1.4	114.1 ± 1.3

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	22.3 ± 1.0	18.6 ± 0.8
Absolute organ weight			
Brain	g	0.449 ± 0.015	0.449 ± 0.018
Heart	g	0.111 ± 0.008	0.095 ± 0.007
Lung	g	0.137 ± 0.009	0.129 ± 0.011
Kidney (L)	g	0.175 ± 0.012	0.123 ± 0.009
(R)	g	0.180 ± 0.013	0.128 ± 0.007
Spleen	g	0.085 ± 0.009	0.098 ± 0.011
Liver	g	1.044 ± 0.114	0.875 ± 0.067
Testis (L)	g	0.090 ± 0.005	
(R)	g	0.092 ± 0.004	
Ovary (L)	mg		4.9 ± 1.6
(R)	mg		4.9 ± 1.5
Uterus	g		0.090 ± 0.029
Thymus	g	0.035 ± 0.005	0.042 ± 0.008
Salivary gland (L)	g	0.073 ± 0.006	0.052 ± 0.011
(R)	g	0.074 ± 0.006	0.054 ± 0.010
Relative organ weight			
Brain	g%	2.01 ± 0.08	2.42 ± 0.10
Heart	g%	0.50 ± 0.02	0.51 ± 0.02
Lung	g%	0.61 ± 0.04	0.69 ± 0.05
Kidney (L)	g%	0.78 ± 0.04	0.66 ± 0.04
(R)	g%	0.81 ± 0.05	0.69 ± 0.03
Spleen	g%	0.38 ± 0.03	0.52 ± 0.04
Liver	g%	4.67 ± 0.44	4.70 ± 0.24
Testis (L)	g%	0.40 ± 0.03	
(R)	g%	0.41 ± 0.03	
Ovary (L)	mg%		26.47 ± 8.31
(R)	mg%		26.27 ± 8.25
Uterus	g%		0.48 ± 0.15
Thymus	g%	0.15 ± 0.02	0.23 ± 0.04
Salivary gland (L)	g%	0.33 ± 0.03	0.28 ± 0.06
(R)	g%	0.33 ± 0.02	0.29 ± 0.05

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

品系： C3H/HeSlc

特色

- 毛髮生長週期穩定
- 具有遺傳性視網膜異常
- 對脂多醣(LPS)具有敏感性
- 雄鼠肝癌自然發生率較高

用途

- 免疫學及癌症研究 ¹⁾
- 毛髮生長研究 ^{2), 3)}

毛色

野生色(AABBCCDD)

H-2單體型

H2^k

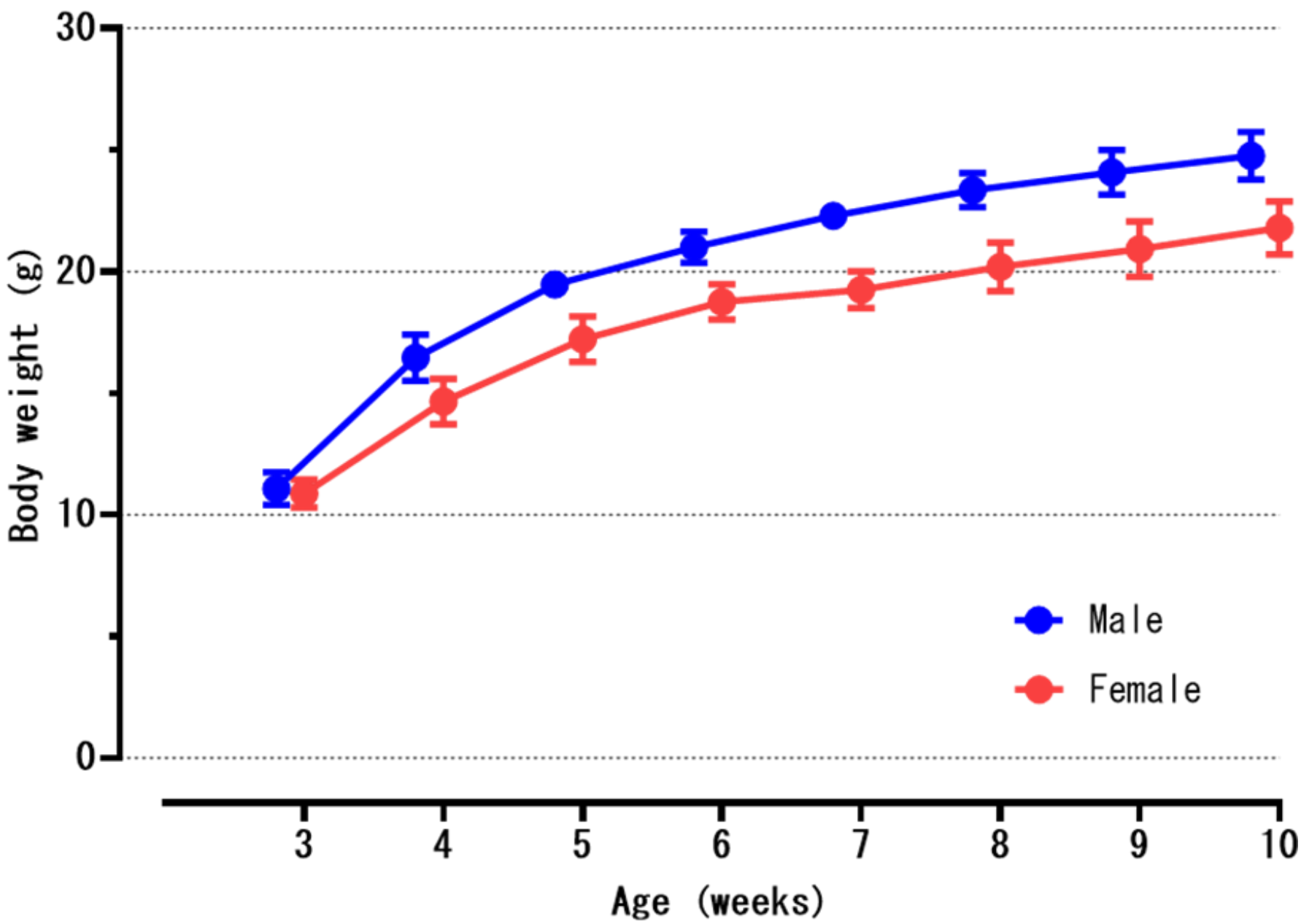
來源

1975 年自東京大學醫科學研究所引進



1) Thuy et al. J Nutr Sci Vitaminol. 2001. 47:363–366.
2) Kawano et al. J Invest Dermatol. 2005. 124:877–885.
3) Kawano et al. J Invest Dermatol. 2004. 122:1084–1090.

■體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	11.1	16.5	19.5	21.0	22.3	23.3	24.1	24.8
	S.D.	0.7	0.9	0.5	0.6	0.5	0.7	0.9	1.0
Female (n=20)	Mean (g)	10.9	14.7	17.2	18.8	19.2	20.2	20.9	21.8
	S.D.	0.6	0.9	0.9	0.7	0.8	1.0	1.1	1.1

小鼠(Inbred)

C3H/HeSlc

■血液學檢查

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
WBC	× 10 ² /μL	33.3 ± 4.3	30.6 ± 11.3
RBC	× 10 ⁴ /μL	830.0 ± 13.2	809.5 ± 19.1
HGB	g/dL	13.6 ± 0.3	13.5 ± 0.3
HCT	%	44.8 ± 0.8	45.8 ± 1.6
MCV	fL	54.0 ± 0.6	56.5 ± 1.7
MCH	pg	16.4 ± 0.3	16.7 ± 0.1
MCHC	g/dL	30.3 ± 0.5	29.5 ± 0.9
PLT	× 10 ⁴ /μL	90.3 ± 4.3	83.8 ± 9.9

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
AST	U/L	59.2 ± 29.3	56.4 ± 12.9
ALT	U/L	24.7 ± 11.1	25.9 ± 5.8
ALP	U/L	129.0 ± 8.8	151.9 ± 6.5
ALB	g/dL	3.2 ± 0.1	3.3 ± 0.1
TP	g/dL	4.9 ± 0.1	4.8 ± 0.1
A/G		1.8 ± 0.1	2.3 ± 0.2
GLU	mg/dL	109.7 ± 7.1	115.1 ± 19.4
T-BIL	mg/dL	0.11 ± 0.01	0.07 ± 0.01
T-CHO	mg/dL	139.7 ± 6.6	115.0 ± 10.1
TG	mg/dL	115.6 ± 16.1	122.0 ± 14.6
PL	mg/dL	258.5 ± 15.0	211.8 ± 20.3
Ca	mg/dL	9.9 ± 0.2	10.4 ± 0.3
IP	mg/dL	9.3 ± 1.0	9.0 ± 0.7
BUN	mg/dL	27.9 ± 4.5	20.6 ± 2.1
CRE	mg/dL	0.14 ± 0.02	0.13 ± 0.01
Na	mEq/L	149.7 ± 0.8	149.4 ± 1.9
K	mEq/L	4.6 ± 0.3	4.5 ± 0.3
Cl	mEq/L	116.3 ± 1.0	116.1 ± 1.8

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

■器官重量

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	n=16
Body weight	g	22.7 ± 0.9	20.1 ± 0.9
Absolute organ weight			
Brain	g	0.439 ± 0.027	0.460 ± 0.014
Heart	g	0.098 ± 0.005	0.090 ± 0.005
Lung	g	0.141 ± 0.014	0.131 ± 0.009
Kidney (L)	g	0.175 ± 0.014	0.128 ± 0.010
(R)	g	0.186 ± 0.011	0.136 ± 0.009
Spleen	g	0.061 ± 0.004	0.081 ± 0.008
Liver	g	0.942 ± 0.051	0.912 ± 0.058
Testis (L)	g	0.069 ± 0.005	
(R)	g	0.071 ± 0.004	
Ovary (L)	mg		5.9 ± 1.4
(R)	mg		7.1 ± 1.6
Uterus	g		0.102 ± 0.028
Thymus	g	0.031 ± 0.015	0.035 ± 0.004
Salivary gland (L)	g	0.081 ± 0.012	0.057 ± 0.007
(R)	g	0.077 ± 0.009	0.057 ± 0.008
Relative organ weight			
Brain	g%	1.94 ± 0.14	2.30 ± 0.10
Heart	g%	0.43 ± 0.02	0.45 ± 0.03
Lung	g%	0.62 ± 0.06	0.65 ± 0.03
Kidney (L)	g%	0.77 ± 0.05	0.64 ± 0.05
(R)	g%	0.82 ± 0.04	0.68 ± 0.05
Spleen	g%	0.27 ± 0.02	0.41 ± 0.04
Liver	g%	4.15 ± 0.16	4.55 ± 0.22
Testis (L)	g%	0.30 ± 0.02	
(R)	g%	0.31 ± 0.02	
Ovary (L)	mg%		29.74 ± 8.15
(R)	mg%		35.72 ± 9.03
Uterus	g%		0.51 ± 0.14
Thymus	g%	0.14 ± 0.07	0.18 ± 0.02
Salivary gland (L)	g%	0.36 ± 0.06	0.28 ± 0.04
(R)	g%	0.34 ± 0.04	0.29 ± 0.05

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

品系： C3H/HeNSlc

- 特色
- 毛髮生長週期穩定
 - 具有遺傳性視網膜異常
 - 對脂多醣(LPS)具有敏感性
 - 雄鼠肝癌自然發生率較高

- 用途
- 免疫學及癌症研究 ¹⁾
 - 毛髮生長研究 ^{2), 3)}

毛色
野生色(AABBCCDD)

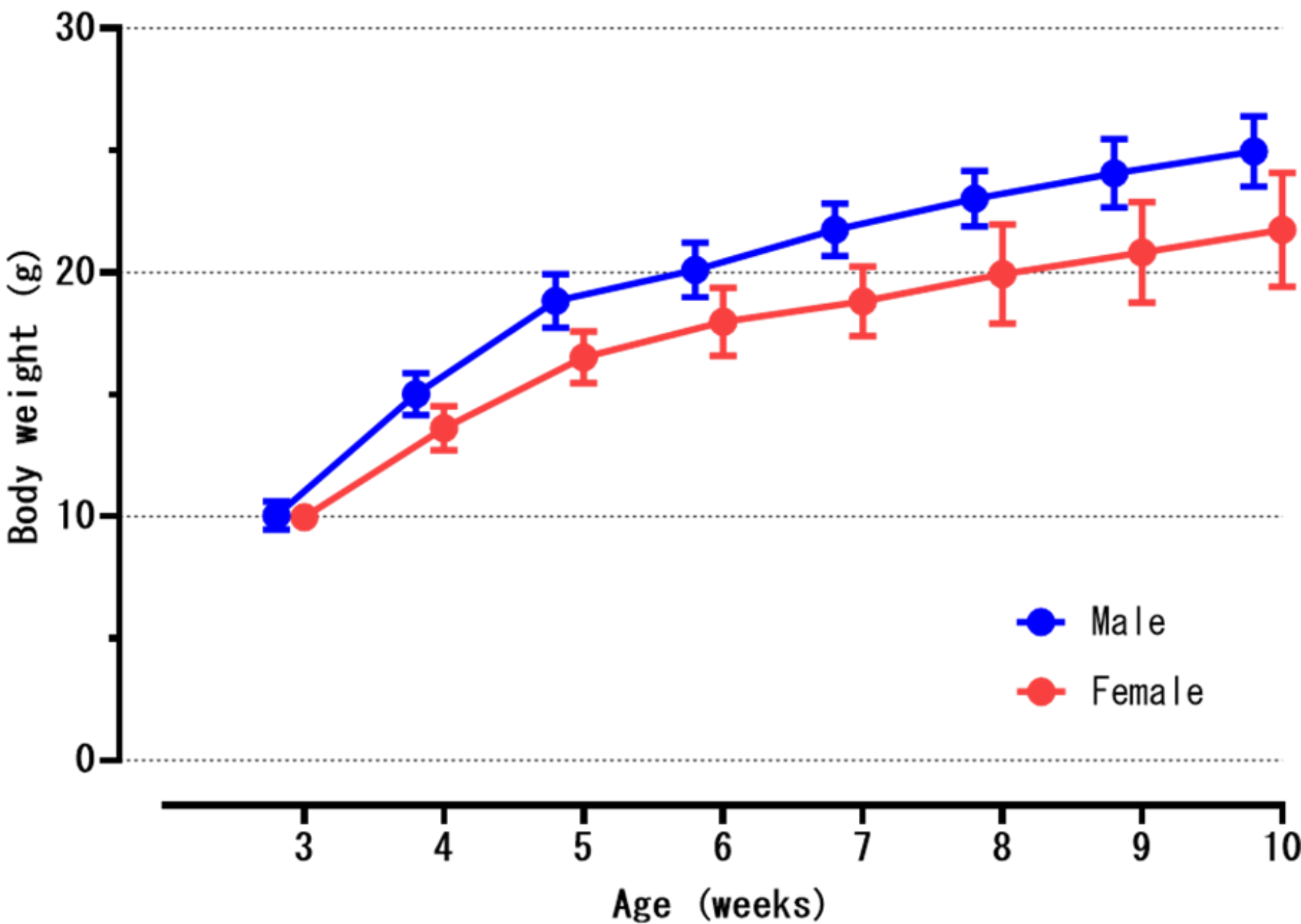
H-2單體型
H2^k

來源
1985 年自國立預防衛生研究所(現為國立健康危機管理研究機構國立感染症研究所)引進



1) Nishiyama et al. Toxicol Appl Pharmacol. 2003. 186:1-6.
2) Kawano et al. J Invest Dermatol. 2005. 124:877-885.
3) Kawano et al. J Invest Dermatol. 2004. 122:1084-1090.

體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	10.0	15.0	18.8	20.1	21.8	23.0	24.1	25.0
	(n=20) S.D.	0.6	0.9	1.1	1.1	1.1	1.1	1.4	1.4
Female	Mean (g)	10.0	13.6	16.5	18.0	18.8	19.9	20.8	21.8
	(n=20) S.D.	0.5	0.9	1.1	1.4	1.4	2.0	2.1	2.3

小鼠(Inbred)

C3H/HeNSlc

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	31.6 ± 7.1	31.4 ± 5.8
RBC	× 10 ⁴ /μL	855.7 ± 15.0	823.1 ± 21.2
HGB	g/dL	14.4 ± 0.2	13.8 ± 0.3
HCT	%	47.5 ± 0.9	45.3 ± 1.2
MCV	fL	55.5 ± 0.8	55.0 ± 0.9
MCH	pg	16.9 ± 0.3	16.8 ± 0.3
MCHC	g/dL	30.4 ± 0.4	30.6 ± 0.4
PLT	× 10 ⁴ /μL	83.5 ± 3.3	81.1 ± 4.6

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	47.3 ± 4.2	59.6 ± 7.6
ALT	U/L	25.2 ± 2.9	28.0 ± 5.7
ALP	U/L	123.9 ± 6.3	149.6 ± 15.2
ALB	g/dL	3.1 ± 0.1	3.4 ± 0.1
TP	g/dL	4.8 ± 0.1	4.9 ± 0.1
A/G		1.8 ± 0.2	2.2 ± 0.3
GLU	mg/dL	96.5 ± 10.3	97.3 ± 17.1
T-BIL	mg/dL	0.08 ± 0.01	0.06 ± 0.01
T-CHO	mg/dL	57.4 ± 4.0	74.2 ± 6.1
TG	mg/dL	128.0 ± 13.8	276.1 ± 59.1
PL	mg/dL	105.3 ± 4.8	140.2 ± 9.5
Ca	mg/dL	9.6 ± 0.2	9.7 ± 0.3
IP	mg/dL	8.8 ± 1.0	10.6 ± 0.8
BUN	mg/dL	23.1 ± 2.1	18.0 ± 1.8
CRE	mg/dL	0.09 ± 0.02	0.09 ± 0.01
Na	mEq/L	152.3 ± 1.6	150.5 ± 1.0
K	mEq/L	4.3 ± 0.3	4.2 ± 0.2
Cl	mEq/L	118.6 ± 1.9	115.8 ± 1.3

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=19
Body weight	g	22.3 ± 1.4	19.7 ± 2.2
Absolute organ weight			
Brain	g	0.416 ± 0.037	0.412 ± 0.021
Heart	g	0.097 ± 0.007	0.086 ± 0.009
Lung	g	0.124 ± 0.009	0.116 ± 0.012
Kidney (L)	g	0.189 ± 0.019	0.128 ± 0.013
(R)	g	0.202 ± 0.017	0.136 ± 0.017
Spleen	g	0.057 ± 0.005	0.072 ± 0.009
Liver	g	0.974 ± 0.061	0.886 ± 0.111
Testis (L)	g	0.071 ± 0.006	
(R)	g	0.074 ± 0.007	
Ovary (L)	mg		4.8 ± 1.6
(R)	mg		4.8 ± 1.1
Uterus	g		0.090 ± 0.021
Thymus	g	0.032 ± 0.005	0.040 ± 0.005
Salivary gland (L)	g	0.077 ± 0.011	0.053 ± 0.009
(R)	g	0.078 ± 0.011	0.055 ± 0.008
Relative organ weight			
Brain	g%	1.87 ± 0.22	2.11 ± 0.20
Heart	g%	0.44 ± 0.03	0.44 ± 0.03
Lung	g%	0.56 ± 0.03	0.59 ± 0.07
Kidney (L)	g%	0.84 ± 0.05	0.65 ± 0.03
(R)	g%	0.90 ± 0.05	0.69 ± 0.04
Spleen	g%	0.26 ± 0.01	0.37 ± 0.03
Liver	g%	4.37 ± 0.10	4.50 ± 0.18
Testis (L)	g%	0.32 ± 0.03	
(R)	g%	0.33 ± 0.03	
Ovary (L)	mg%		24.68 ± 8.37
(R)	mg%		24.36 ± 5.61
Uterus	g%		0.46 ± 0.10
Thymus	g%	0.14 ± 0.02	0.20 ± 0.02
Salivary gland (L)	g%	0.34 ± 0.05	0.27 ± 0.06
(R)	g%	0.35 ± 0.04	0.28 ± 0.05

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

品系： C57BL/6NCrSlc

特色

- 細胞性免疫功能隨年齡增加而下降的程度較低
- 自發性腫瘤發生率低
- 對酒精具有較高偏好性
- 子代常見眼部異常(如眼球缺損或畸形)
- 容易發生脫毛
- 毛髮生長週期穩定 ¹⁾
- Th1 型免疫反應較強 ²⁾

用途

廣泛應用於各類一般研究

- 建立基因改造動物
- 免疫學及癌症研究
- 毛髮生長研究
- 老化研究
- 肥胖及糖尿病研究

毛色

黑色(aaBBCCDD)

H-2單體型

H2^b

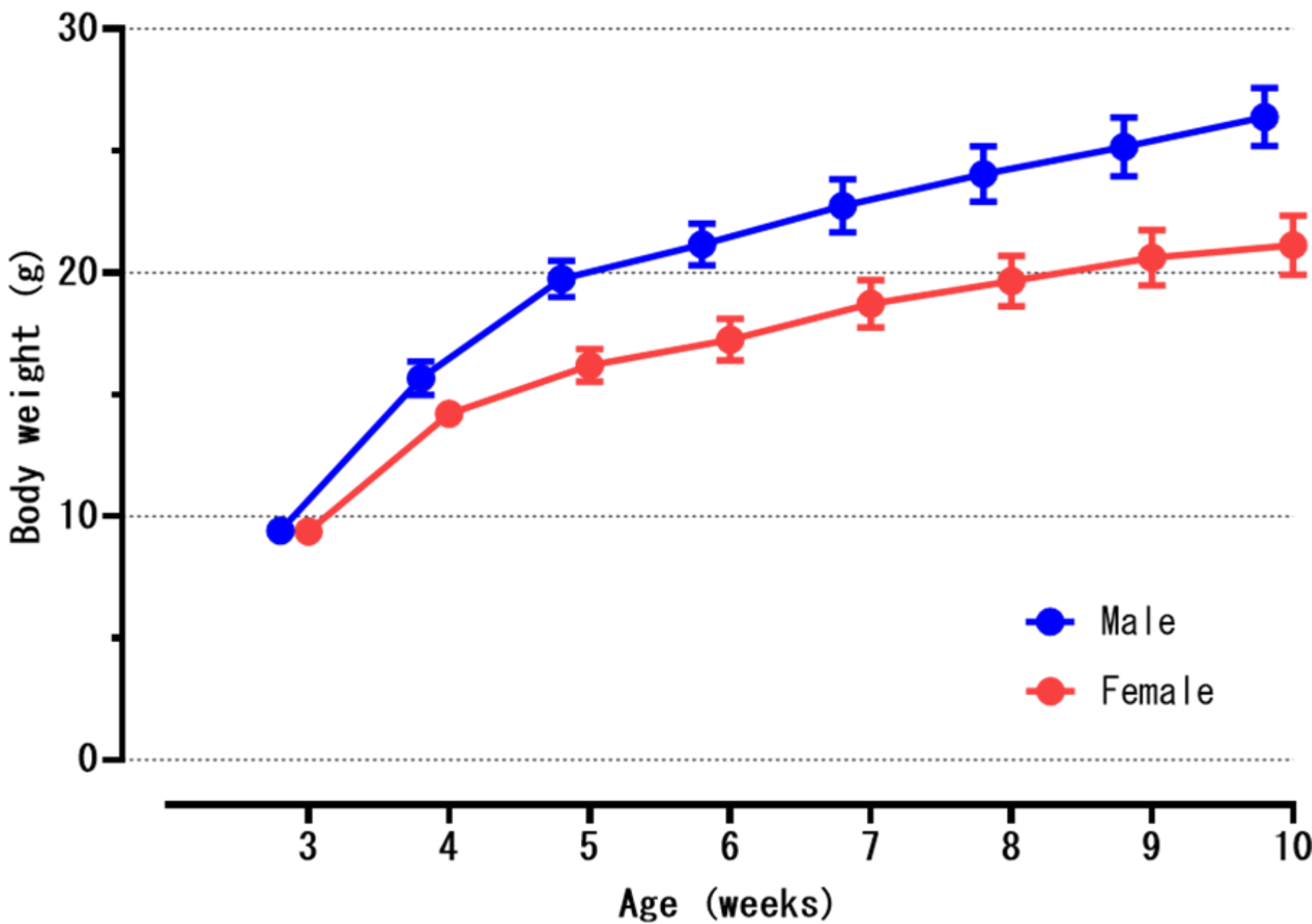


來源

1975年に東京大学医科学研究所より導入 ^{3), 4)}

1) Muller-Rover et al. J Invest Dermatol. 2001. 117:3-15.
2) Autenrieth et al. Infect Immun. 1994. 62:2590-2599.
3) Mekada et al. Exp. Anim. 2015. 64:91-100.
4) Mekada et al. Exp. Anim. 2021. 70:145-160.

■體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	9.4	15.7	19.7	21.2	22.8	24.1	25.2	26.4
	S.D.	0.3	0.7	0.8	0.9	1.1	1.1	1.2	1.2
Female (n=20)	Mean (g)	9.4	14.2	16.2	17.2	18.7	19.7	20.6	21.1
	S.D.	0.3	0.5	0.7	0.9	1.0	1.0	1.1	1.2

小鼠(Inbred)

C57BL/6NCrSlc

■血液學檢查

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
WBC	× 10 ² /μL	33.0 ± 10.7	20.2 ± 12.0
RBC	× 10 ⁴ /μL	944.1 ± 24.6	883.2 ± 18.3
HGB	g/dL	14.4 ± 0.4	13.6 ± 0.3
HCT	%	50.9 ± 1.7	48.8 ± 1.4
MCV	fL	53.9 ± 0.9	55.2 ± 1.3
MCH	pg	15.3 ± 0.3	15.4 ± 0.2
MCHC	g/dL	28.4 ± 0.4	27.9 ± 0.9
PLT	× 10 ⁴ /μL	100.2 ± 8.0	85.9 ± 7.4

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
AST	U/L	64.8 ± 13.1	61.4 ± 6.0
ALT	U/L	24.6 ± 3.2	27.8 ± 1.8
ALP	U/L	115.0 ± 12.0	156.1 ± 14.8
ALB	g/dL	3.4 ± 0.2	3.6 ± 0.1
TP	g/dL	5.1 ± 0.3	5.1 ± 0.2
A/G		2.0 ± 0.2	2.5 ± 0.3
GLU	mg/dL	119.8 ± 19.2	132.1 ± 23.4
T-BIL	mg/dL	0.05 ± 0.02	0.04 ± 0.01
T-CHO	mg/dL	120.5 ± 16.2	93.5 ± 9.1
TG	mg/dL	148.3 ± 49.6	39.0 ± 14.2
PL	mg/dL	252.1 ± 30.0	183.0 ± 15.5
Ca	mg/dL	9.8 ± 0.2	10.0 ± 0.2
IP	mg/dL	9.7 ± 0.7	9.0 ± 1.3
BUN	mg/dL	25.3 ± 4.1	22.9 ± 2.8
CRE	mg/dL	0.13 ± 0.05	0.17 ± 0.03
Na	mEq/L	152.0 ± 1.7	151.0 ± 0.7
K	mEq/L	4.2 ± 0.2	3.9 ± 0.4
Cl	mEq/L	116.9 ± 1.7	115.4 ± 1.3

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

■器官重量

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	n=18
Body weight	g	23.2 ± 1.3	18.3 ± 0.9
Absolute organ weight			
Brain	g	0.444 ± 0.011	0.446 ± 0.012
Heart	g	0.114 ± 0.013	0.095 ± 0.006
Lung	g	0.140 ± 0.009	0.128 ± 0.012
Kidney (L)	g	0.146 ± 0.009	0.116 ± 0.006
(R)	g	0.154 ± 0.009	0.125 ± 0.010
Spleen	g	0.061 ± 0.008	0.072 ± 0.008
Liver	g	0.968 ± 0.079	0.802 ± 0.045
Testis (L)	g	0.076 ± 0.014	
(R)	g	0.077 ± 0.014	
Ovary (L)	mg		4.5 ± 2.5
(R)	mg		4.1 ± 1.6
Uterus	g		0.066 ± 0.022
Thymus	g	0.047 ± 0.006	0.059 ± 0.007
Salivary gland (L)	g	0.070 ± 0.007	0.041 ± 0.004
(R)	g	0.070 ± 0.007	0.041 ± 0.003
Relative organ weight			
Brain	g%	1.92 ± 0.12	2.44 ± 0.12
Heart	g%	0.49 ± 0.06	0.52 ± 0.03
Lung	g%	0.61 ± 0.05	0.70 ± 0.06
Kidney (L)	g%	0.63 ± 0.05	0.64 ± 0.04
(R)	g%	0.66 ± 0.05	0.68 ± 0.05
Spleen	g%	0.26 ± 0.04	0.39 ± 0.03
Liver	g%	4.17 ± 0.34	4.37 ± 0.12
Testis (L)	g%	0.33 ± 0.06	
(R)	g%	0.33 ± 0.06	
Ovary (L)	mg%		24.65 ± 13.31
(R)	mg%		22.54 ± 8.38
Uterus	g%		0.36 ± 0.12
Thymus	g%	0.20 ± 0.03	0.32 ± 0.04
Salivary gland (L)	g%	0.30 ± 0.04	0.22 ± 0.02
(R)	g%	0.30 ± 0.03	0.22 ± 0.02

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

品系： C57BL/6JmsSlc

特色

- 細胞性免疫功能隨年齡增加而下降的程度較低
- 自發性腫瘤發生率低
- 對酒精具有較高偏好性
- 子代常見眼部異常(如眼球缺損或畸形)
- 容易發生脫毛
- 毛髮生長週期穩定 ¹⁾
- Th1 型免疫反應較強 ²⁾

用途

廣泛應用於各類一般研究

- 建立基因改造動物
- 免疫學及癌症研究
- 毛髮生長研究
- 老化研究
- 肥滿・糖尿病

毛色

黑色(aaBBCCDD)

H-2 單體型

H2^b

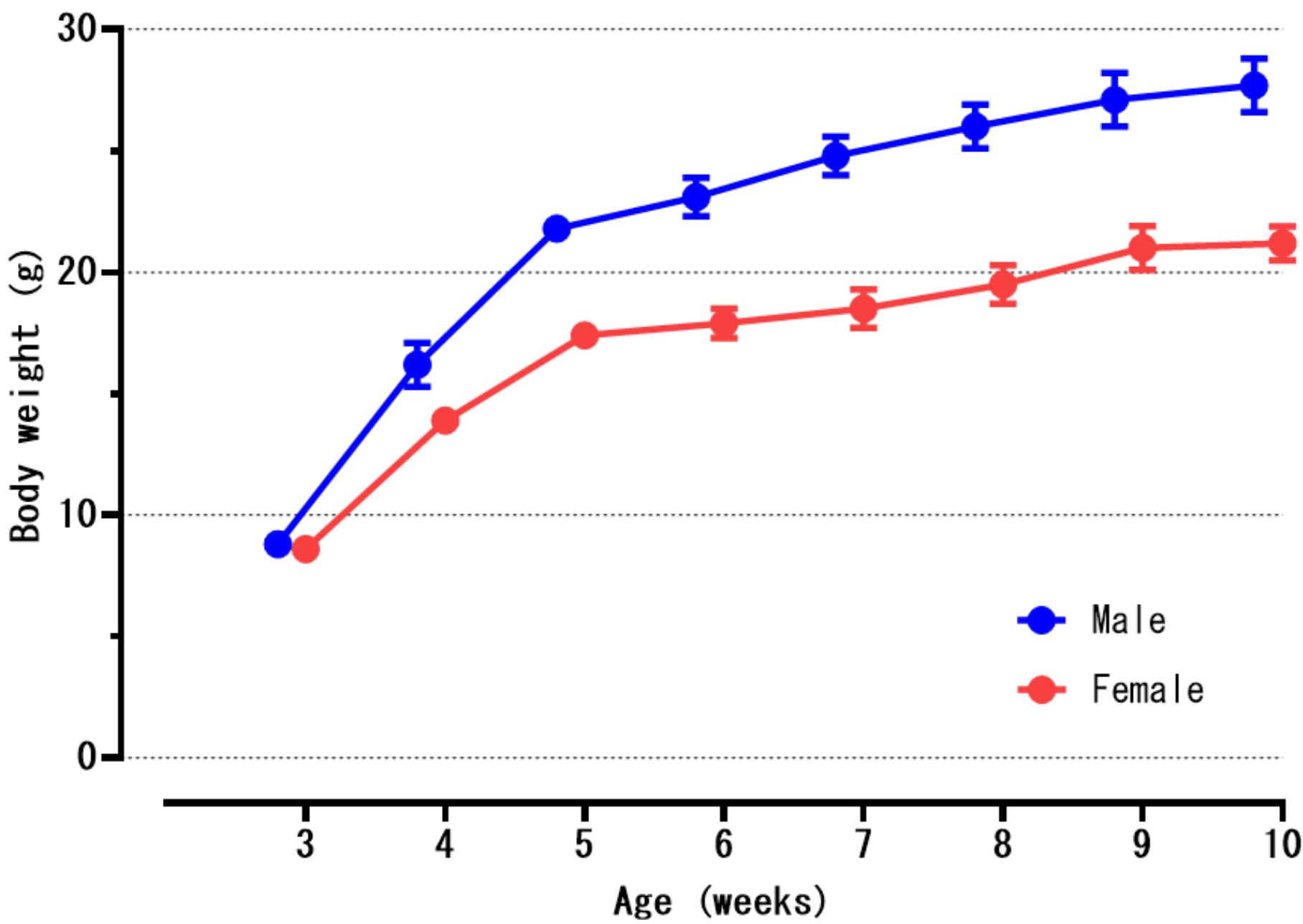


來源

1975 年自東京大學醫科學研究所引進 ³⁾

1) Muller-Rover et al. J Invest Dermatol. 2001. 117:3-15.
2) Autenrieth et al. Infect Immun. 1994. 62:2590-2599.
3) Mekada et al. Exp. Anim. 2021. 70:145-160.

■體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	8.8	16.2	21.8	23.1	24.8	26.0	27.1	27.7
	S.D.	0.5	0.9	0.5	0.8	0.8	0.9	1.1	1.1
Female (n=20)	Mean (g)	8.6	13.9	17.4	17.9	18.5	19.5	21.0	21.2
	S.D.	0.4	0.5	0.5	0.6	0.8	0.8	0.9	0.7

■血液學検査

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=9	n=10
WBC	× 10 ² /μL	33.2 ± 10.5	60.1 ± 4.5
RBC	× 10 ⁴ /μL	911.6 ± 10.8	930.0 ± 33.7
HGB	g/dL	14.1 ± 0.2	14.4 ± 0.6
HCT	%	45.9 ± 0.9	48.1 ± 1.9
MCV	fL	50.4 ± 0.6	51.7 ± 0.4
MCH	pg	15.5 ± 0.2	15.5 ± 0.2
MCHC	g/dL	30.8 ± 0.6	29.9 ± 0.4
PLT	× 10 ⁴ /μL	123.8 ± 14.4	113.2 ± 9.6

Values are mean ± S.D.
飼料:FR-2 (フナバシファーム)

■血液生化学検査

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
AST	U/L	59.0 ± 11.0	72.0 ± 9.5
ALT	U/L	24.0 ± 3.9	32.2 ± 6.2
ALP	U/L	116.2 ± 8.5	159.4 ± 8.4
ALB	g/dL	3.3 ± 0.1	3.4 ± 0.2
TP	g/dL	5.2 ± 0.1	4.8 ± 0.2
A/G		1.8 ± 0.2	2.6 ± 0.4
GLU	mg/dL	96.1 ± 14.8	106.7 ± 16.9
T-BIL	mg/dL	0.08 ± 0.02	0.06 ± 0.03
T-CHO	mg/dL	96.1 ± 10.3	73.5 ± 10.2
TG	mg/dL	57.7 ± 23.1	44.1 ± 13.0
PL	mg/dL	211.9 ± 22.5	161.9 ± 20.0
Ca	mg/dL	9.4 ± 0.3	9.2 ± 0.3
IP	mg/dL	10.6 ± 0.8	9.7 ± 1.3
BUN	mg/dL	25.6 ± 2.5	29.4 ± 4.3
CRE	mg/dL	0.12 ± 0.03	0.11 ± 0.02
Na	mEq/L	150.5 ± 1.1	151.9 ± 1.5
K	mEq/L	4.4 ± 0.3	3.8 ± 0.4
Cl	mEq/L	115.1 ± 1.3	117.8 ± 2.2

Values are mean ± S.D.
飼料:FR-2 (フナバシファーム)

■器官重量

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	n=20
Body weight	g	25. 0 ± 1. 1	18. 6 ± 0. 5
Absolute organ weight			
Brain	g	0. 468 ± 0. 012	0. 471 ± 0. 030
Heart	g	0. 123 ± 0. 008	0. 098 ± 0. 009
Lung	g	0. 144 ± 0. 008	0. 131 ± 0. 009
Kidney (L)	g	0. 150 ± 0. 010	0. 116 ± 0. 009
(R)	g	0. 157 ± 0. 011	0. 126 ± 0. 014
Spleen	g	0. 066 ± 0. 005	0. 071 ± 0. 009
Liver	g	0. 981 ± 0. 061	0. 815 ± 0. 050
Testis (L)	g	0. 090 ± 0. 005	
(R)	g	0. 094 ± 0. 007	
Ovary (L)	mg		3. 5 ± 1. 3
(R)	mg		4. 0 ± 1. 0
Uterus	g		0. 066 ± 0. 018
Thymus	g	0. 036 ± 0. 004	0. 050 ± 0. 005
Salivary gland (L)	g	0. 068 ± 0. 006	0. 037 ± 0. 005
(R)	g	0. 069 ± 0. 006	0. 036 ± 0. 004
Relative organ weight			
Brain	g%	1. 88 ± 0. 08	2. 53 ± 0. 15
Heart	g%	0. 49 ± 0. 03	0. 52 ± 0. 05
Lung	g%	0. 58 ± 0. 03	0. 70 ± 0. 04
Kidney (L)	g%	0. 60 ± 0. 05	0. 63 ± 0. 05
(R)	g%	0. 63 ± 0. 04	0. 68 ± 0. 06
Spleen	g%	0. 27 ± 0. 03	0. 38 ± 0. 05
Liver	g%	3. 93 ± 0. 16	4. 38 ± 0. 25
Testis (L)	g%	0. 36 ± 0. 02	
(R)	g%	0. 38 ± 0. 03	
Ovary (L)	mg%		18. 51 ± 7. 03
(R)	mg%		21. 62 ± 4. 98
Uterus	g%		0. 36 ± 0. 09
Thymus	g%	0. 14 ± 0. 02	0. 27 ± 0. 02
Salivary gland (L)	g%	0. 27 ± 0. 03	0. 20 ± 0. 03
(R)	g%	0. 28 ± 0. 03	0. 20 ± 0. 02

Values are mean ± S.D.
飼料:FR-2 (フナバシファーム)

品系： DBA/1JmsSlc

特色

- 平均產仔數較少，繁殖效率較低

用途

- 藥物誘導關節炎模型
- 膠原蛋白誘導關節炎(CIA 模型) ¹⁾
- 感染防禦與感染免疫研究
- 人類慢性類風濕性關節炎之實驗模型

毛色

淺巧克力色 (aabbCCdd)

H -2 單體型

H2^d

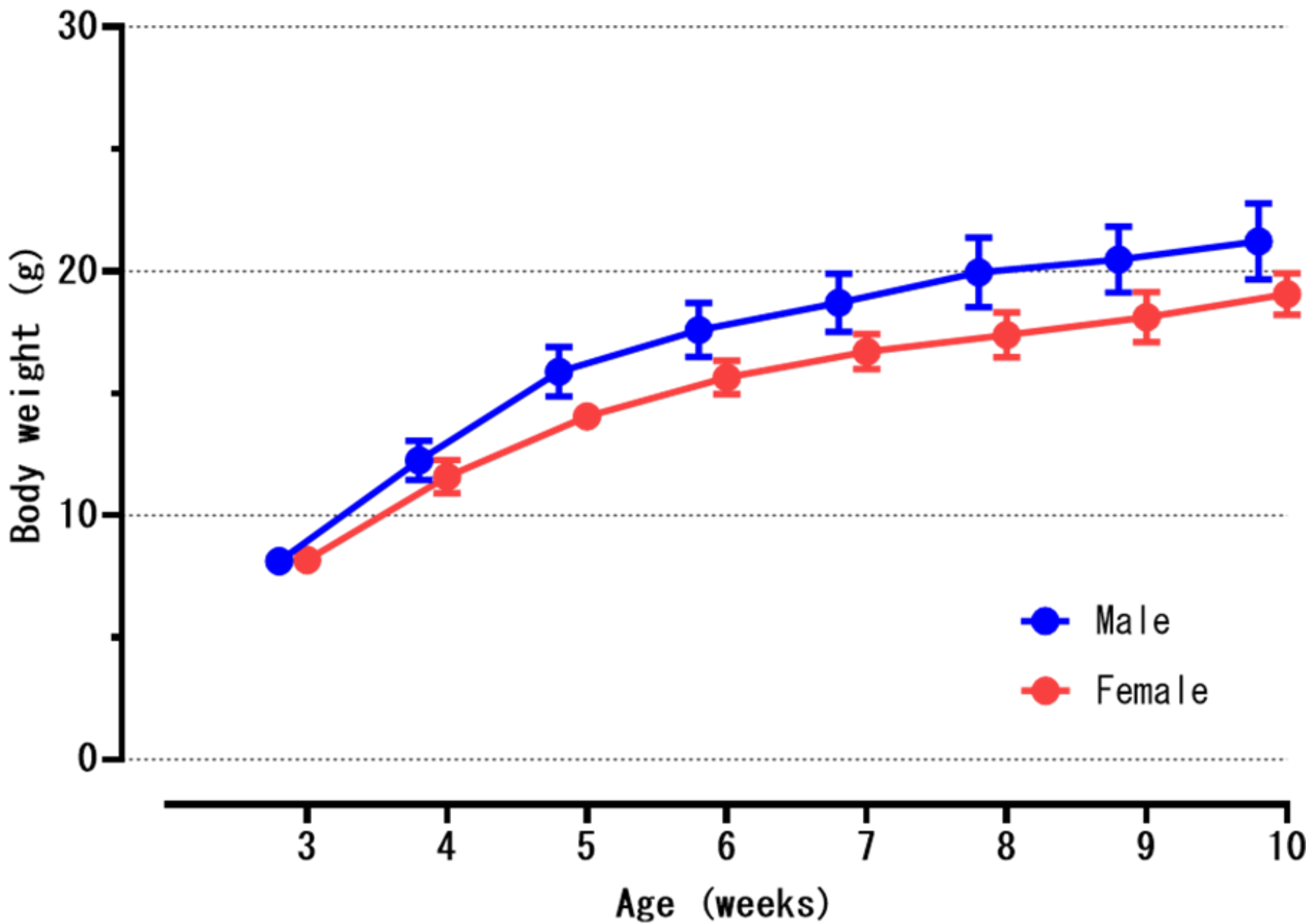
來源

1997 年自東京大學醫科學研究所引進。



1) Yasuda et al. J Pharmacol Sci. 2025. 158:368–372.

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	8.1	12.3	15.9	17.6	18.7	20.0	20.5	21.2
	S.D.	0.5	0.8	1.0	1.1	1.2	1.4	1.4	1.6
Female (n=19)	Mean (g)	8.2	11.6	14.1	15.6	16.7	17.4	18.1	19.1
	S.D.	0.5	0.7	0.5	0.7	0.7	0.9	1.0	0.9

飼料: 5L3R(PMI FEEDS)

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=8
WBC	× 10 ² /μL	15.2 ± 2.2	13.0 ± 1.5
RBC	× 10 ⁴ /μL	1105.2 ± 21.1	1044.0 ± 25.1
HGB	g/dL	14.7 ± 0.3	14.3 ± 0.4
HCT	%	51.8 ± 1.3	48.3 ± 1.5
MCV	fL	46.8 ± 1.3	46.3 ± 0.4
MCH	pg	13.3 ± 0.2	13.6 ± 0.1
MCHC	g/dL	28.4 ± 0.8	29.5 ± 0.2
PLT	× 10 ⁴ /μL	76.2 ± 15.6	88.0 ± 5.8

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	87.5 ± 47.3	64.8 ± 10.9
ALT	U/L	30.0 ± 3.5	30.8 ± 6.8
ALP	U/L	154.7 ± 10.9	164.4 ± 18.9
ALB	g/dL	3.0 ± 0.1	3.3 ± 0.1
TP	g/dL	4.7 ± 0.1	4.7 ± 0.2
A/G		1.9 ± 0.2	2.5 ± 0.3
GLU	mg/dL	78.3 ± 14.0	110.5 ± 11.1
T-BIL	mg/dL	0.07 ± 0.01	0.06 ± 0.01
T-CHO	mg/dL	91.5 ± 6.8	57.9 ± 6.8
TG	mg/dL	94.8 ± 21.3	75.4 ± 20.9
PL	mg/dL	185.4 ± 13.8	120.5 ± 14.3
Ca	mg/dL	9.2 ± 0.2	9.3 ± 0.2
IP	mg/dL	9.2 ± 0.9	8.3 ± 0.5
BUN	mg/dL	27.2 ± 4.5	19.0 ± 1.6
CRE	mg/dL	0.09 ± 0.01	0.14 ± 0.08
Na	mEq/L	147.9 ± 0.6	148.9 ± 1.3
K	mEq/L	4.5 ± 0.2	4.4 ± 0.2
Cl	mEq/L	91.7 ± 1.3	117.3 ± 1.3

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=19
Body weight	g	19.1 ± 1.5	17.0 ± 1.0
Absolute organ weight			
Brain	g	0.376 ± 0.012	0.385 ± 0.012
Heart	g	0.119 ± 0.009	0.111 ± 0.009
Lung	g	0.109 ± 0.009	0.108 ± 0.008
Kidney (L)	g	0.166 ± 0.017	0.123 ± 0.008
(R)	g	0.171 ± 0.014	0.127 ± 0.007
Spleen	g	0.058 ± 0.006	0.075 ± 0.008
Liver	g	0.796 ± 0.073	0.752 ± 0.043
Testis (L)	g	0.078 ± 0.011	
(R)	g	0.080 ± 0.009	
Ovary (L)	mg		6.8 ± 1.5
(R)	mg		6.9 ± 1.5
Uterus	g		0.126 ± 0.042
Thymus	g	0.033 ± 0.004	0.042 ± 0.005
Salivary gland (L)	g	0.067 ± 0.005	0.051 ± 0.005
(R)	g	0.068 ± 0.006	0.053 ± 0.004
Relative organ weight			
Brain	g%	1.98 ± 0.12	2.27 ± 0.12
Heart	g%	0.63 ± 0.05	0.65 ± 0.04
Lung	g%	0.57 ± 0.04	0.64 ± 0.05
Kidney (L)	g%	0.87 ± 0.07	0.73 ± 0.05
(R)	g%	0.90 ± 0.06	0.75 ± 0.04
Spleen	g%	0.30 ± 0.02	0.44 ± 0.03
Liver	g%	4.18 ± 0.20	4.44 ± 0.16
Testis (L)	g%	0.41 ± 0.06	
(R)	g%	0.42 ± 0.04	
Ovary (L)	mg%		40.15 ± 10.12
(R)	mg%		40.76 ± 10.38
Uterus	g%		0.74 ± 0.22
Thymus	g%	0.17 ± 0.03	0.25 ± 0.03
Salivary gland (L)	g%	0.36 ± 0.05	0.30 ± 0.04
(R)	g%	0.36 ± 0.05	0.31 ± 0.03

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

品系： DBA/2CrSlc

特色

- 幼齡時期易發生聽覺誘發性癲癇樣發作
- 補體 C5 缺失 ¹⁾
- 平均產仔數較少，繁殖效率較低
- 血壓相對較低
- 隨年齡增加，心臟鈣化發生率較高

毛色

淺巧克力色 (aabbCCdd)

H-2 單體型

H2^d

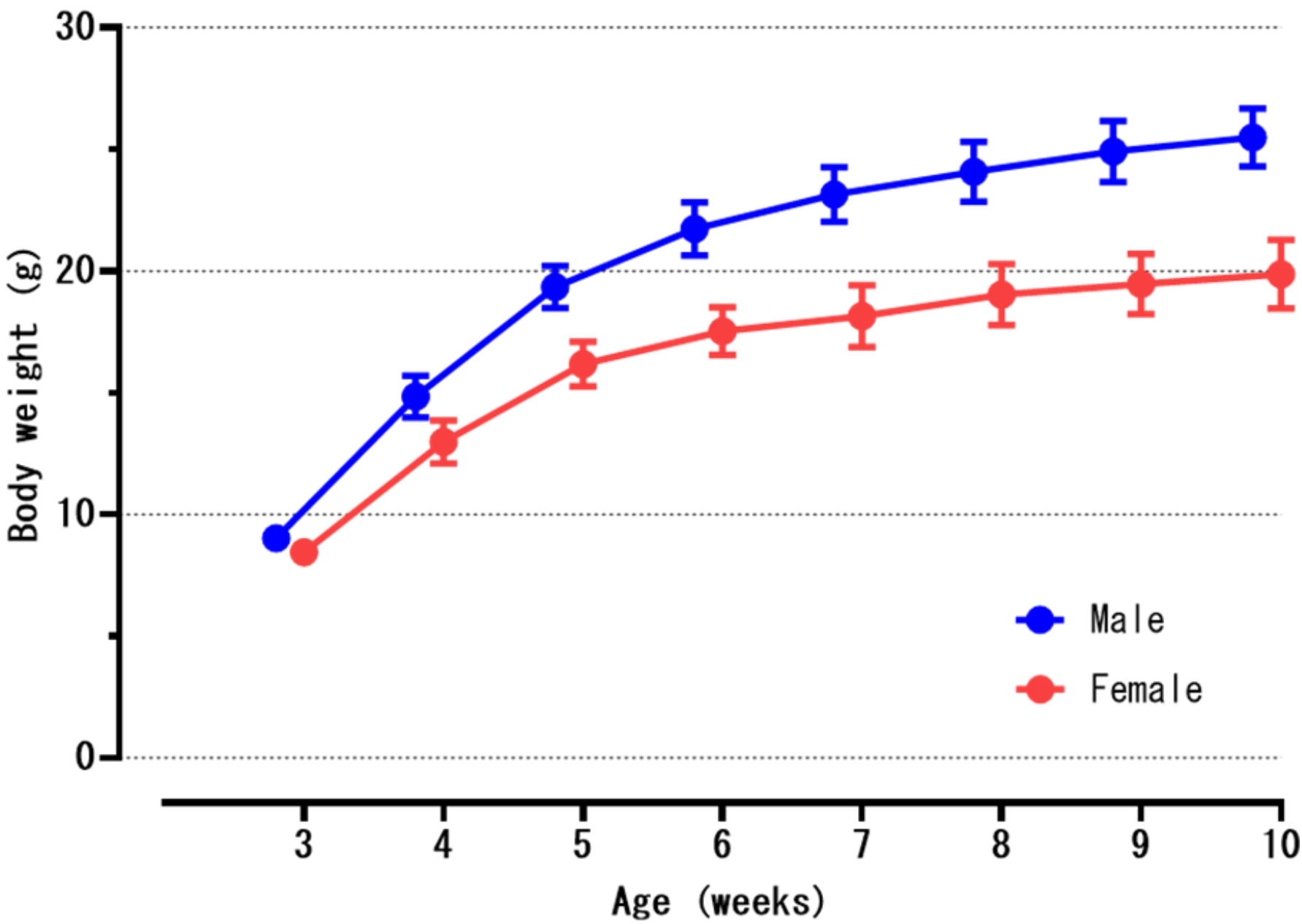
來源

1975年自東京大學醫科學研究所引進



1) Mizuno et al. Sci Rep. 2017. 7:42714.

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	9.0	14.8	19.3	21.7	23.2	24.1	24.9	25.5
	(n=20) S.D.	0.5	0.9	0.9	1.1	1.1	1.2	1.3	1.2
Female	Mean (g)	8.5	13.0	16.2	17.5	18.2	19.0	19.5	19.9
	(n=20) S.D.	0.2	0.9	0.9	1.0	1.3	1.3	1.2	1.4

飼料: ラボMR-A1 (日本農産工業)

■血液學検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	32.3 ± 8.3	34.0 ± 5.8
RBC	× 10 ⁴ /μL	1044.1 ± 40.8	978.4 ± 27.2
HGB	g/dL	14.6 ± 0.6	13.8 ± 0.4
HCT	%	50.2 ± 1.7	47.5 ± 1.3
MCV	fL	48.1 ± 0.6	48.5 ± 0.5
MCH	pg	13.9 ± 0.1	14.1 ± 0.2
MCHC	g/dL	29.0 ± 0.5	29.0 ± 0.4
PLT	× 10 ⁴ /μL	80.8 ± 5.6	85.7 ± 5.6

Values are mean ± S.D.
飼料: ラボMR-A1 (日本農産工業)

■血液生化学検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	85.0 ± 19.1	97.2 ± 27.8
ALT	U/L	30.1 ± 3.2	23.2 ± 1.9
ALP	U/L	152.2 ± 14.6	195.1 ± 22.5
ALB	g/dL	3.0 ± 0.1	3.2 ± 0.1
TP	g/dL	4.6 ± 0.1	4.6 ± 0.2
A/G		1.9 ± 0.2	2.4 ± 0.3
GLU	mg/dL	67.0 ± 20.2	88.0 ± 20.7
T-BIL	mg/dL	0.10 ± 0.01	0.05 ± 0.01
T-CHO	mg/dL	88.2 ± 5.1	57.7 ± 6.4
TG	mg/dL	81.8 ± 21.8	97.0 ± 23.4
PL	mg/dL	178.6 ± 6.6	120.9 ± 14.2
Ca	mg/dL	9.5 ± 0.3	9.6 ± 0.3
IP	mg/dL	10.8 ± 2.9	10.5 ± 1.0
BUN	mg/dL	24.9 ± 1.7	22.5 ± 1.9
CRE	mg/dL	0.11 ± 0.02	0.10 ± 0.01
Na	mEq/L	151.7 ± 1.9	150.9 ± 1.4
K	mEq/L	4.3 ± 0.3	3.7 ± 0.2
Cl	mEq/L	118.5 ± 1.6	118.7 ± 1.5

Values are mean ± S.D.
飼料: ラボMR-A1 (日本農産工業)

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	22.9 ± 1.1	17.6 ± 1.2
Absolute organ weight			
Brain	g	0.383 ± 0.013	0.386 ± 0.014
Heart	g	0.130 ± 0.006	0.105 ± 0.010
Lung	g	0.129 ± 0.010	0.117 ± 0.012
Kidney (L)	g	0.191 ± 0.011	0.124 ± 0.012
(R)	g	0.193 ± 0.013	0.125 ± 0.013
Spleen	g	0.071 ± 0.005	0.072 ± 0.010
Liver	g	0.896 ± 0.041	0.733 ± 0.077
Testis (L)	g	0.085 ± 0.009	
(R)	g	0.089 ± 0.009	
Ovary (L)	mg		7.2 ± 1.7
(R)	mg		8.8 ± 2.0
Uterus	g		0.080 ± 0.025
Thymus	g	0.034 ± 0.005	0.038 ± 0.005
Salivary gland (L)	g	0.074 ± 0.010	0.051 ± 0.006
(R)	g	0.075 ± 0.011	0.053 ± 0.004
Relative organ weight			
Brain	g%	1.67 ± 0.08	2.20 ± 0.12
Heart	g%	0.57 ± 0.03	0.60 ± 0.04
Lung	g%	0.56 ± 0.05	0.67 ± 0.05
Kidney (L)	g%	0.84 ± 0.06	0.70 ± 0.04
(R)	g%	0.85 ± 0.06	0.71 ± 0.05
Spleen	g%	0.31 ± 0.02	0.41 ± 0.04
Liver	g%	3.92 ± 0.19	4.15 ± 0.21
Testis (L)	g%	0.37 ± 0.04	
(R)	g%	0.39 ± 0.03	
Ovary (L)	mg%		40.54 ± 9.06
(R)	mg%		49.52 ± 9.75
Uterus	g%		0.45 ± 0.13
Thymus	g%	0.15 ± 0.02	0.22 ± 0.03
Salivary gland (L)	g%	0.32 ± 0.04	0.29 ± 0.04
(R)	g%	0.33 ± 0.04	0.30 ± 0.03

Values are mean ± S.D.
飼料: ラボMR-A1 (日本農産工業)

品系： NC/NgaSlc

特色

具有遺傳性易感性，並在環境因子作用下可誘發皮膚炎。(在 SPF 環境下不會自然發生皮膚症狀)

用途

- 藥物誘導異位性皮膚炎模型
- 藥物誘導皮膚發炎模型
- 可提供經塗抹蟎類以誘發皮膚炎之動物

毛色

肉桂色(AAbbCCDD)

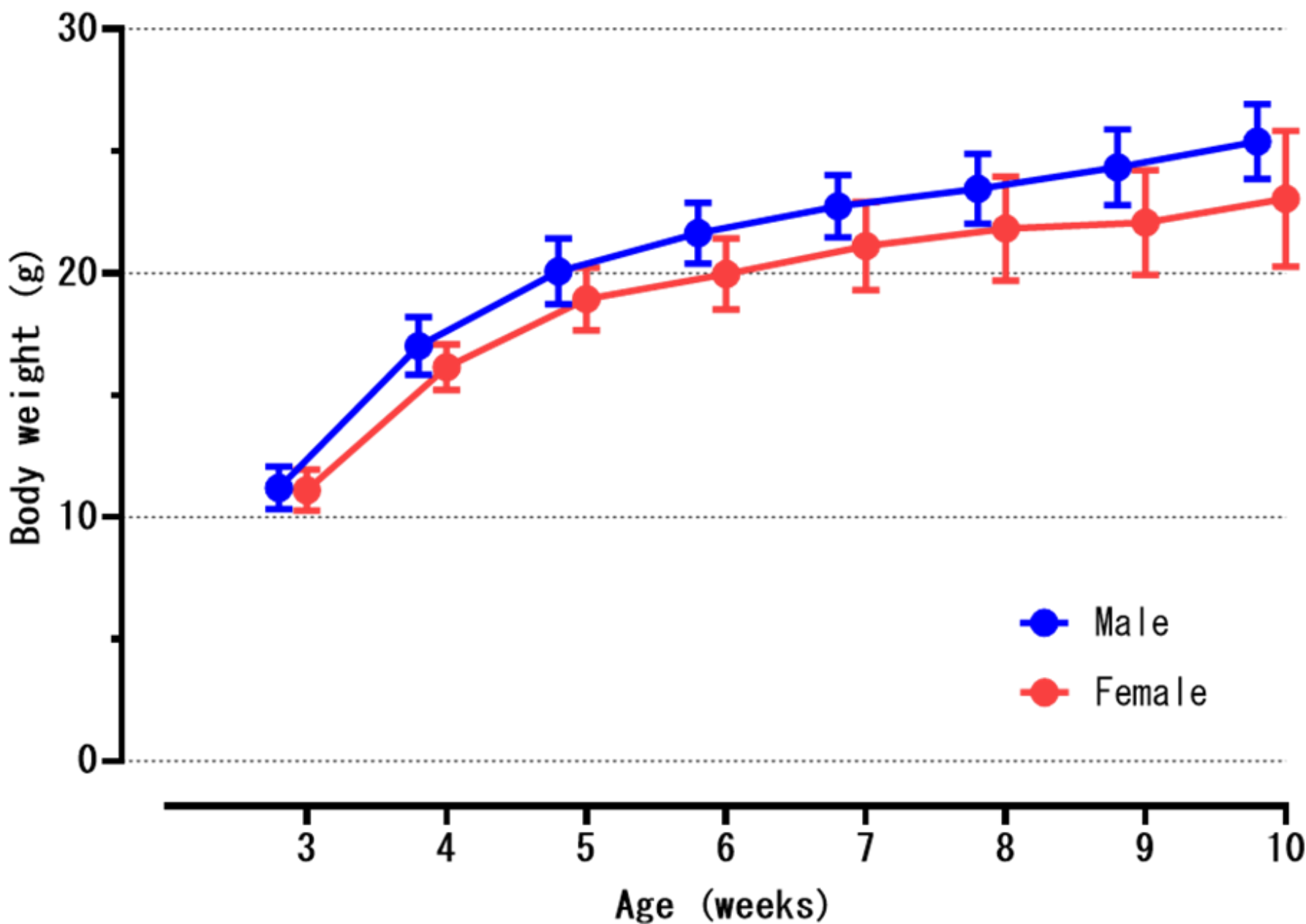


1) Matsuzaki et al. Arch Toxicol. 2024. 98:2173–2183.
2) Kaneki et al. Int Immunopharmacol. 2023. 124:110920.

來源

1997年自名古屋大學引進

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	11.2	17.0	20.1	21.6	22.8	23.5	24.3	25.4
	S.D.	0.9	1.2	1.4	1.2	1.3	1.4	1.6	1.5
Female (n=20)	Mean (g)	11.1	16.1	18.9	20.0	21.1	21.8	22.1	23.1
	S.D.	0.8	0.9	1.3	1.5	1.8	2.1	2.1	2.8

飼料: 5L3R(PMI FEEDS)

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	21.7 ± 4.6	27.9 ± 7.6
RBC	× 10 ⁴ /μL	953.7 ± 39.8	1018.1 ± 15.6
HGB	g/dL	13.5 ± 0.5	14.7 ± 0.2
HCT	%	47.3 ± 1.0	49.9 ± 0.7
MCV	fL	49.7 ± 2.0	49.0 ± 0.4
MCH	pg	14.2 ± 0.4	14.5 ± 0.2
MCHC	g/dL	28.5 ± 0.6	29.5 ± 0.4
PLT	× 10 ⁴ /μL	132.4 ± 13.8	119.5 ± 8.5

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	75.0 ± 34.9	62.1 ± 13.7
ALT	U/L	28.9 ± 9.0	32.8 ± 6.9
ALP	U/L	93.3 ± 13.3	131.5 ± 18.7
ALB	g/dL	2.6 ± 0.1	3.0 ± 0.1
TP	g/dL	4.1 ± 0.2	4.3 ± 0.2
A/G		1.7 ± 0.3	2.2 ± 0.2
GLU	mg/dL	134.3 ± 25.3	191.4 ± 35.0
T-BIL	mg/dL	0.09 ± 0.01	0.06 ± 0.01
T-CHO	mg/dL	90.2 ± 11.1	82.9 ± 9.9
TG	mg/dL	144.8 ± 28.6	177.9 ± 75.2
PL	mg/dL	190.5 ± 20.1	173.6 ± 19.2
Ca	mg/dL	9.3 ± 0.3	9.6 ± 0.1
IP	mg/dL	8.8 ± 1.0	8.5 ± 0.4
BUN	mg/dL	23.6 ± 1.7	24.1 ± 2.4
CRE	mg/dL	0.10 ± 0.03	0.17 ± 0.04
Na	mEq/L	153.0 ± 2.0	150.6 ± 0.8
K	mEq/L	5.0 ± 0.6	4.3 ± 0.3
Cl	mEq/L	118.6 ± 1.4	113.4 ± 1.5

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	22.7 ± 1.2	20.8 ± 2.5
Absolute organ weight			
Brain	g	0.387 ± 0.016	0.403 ± 0.014
Heart	g	0.114 ± 0.009	0.106 ± 0.009
Lung	g	0.137 ± 0.010	0.142 ± 0.012
Kidney (L)	g	0.177 ± 0.019	0.143 ± 0.012
(R)	g	0.190 ± 0.020	0.151 ± 0.013
Spleen	g	0.068 ± 0.010	0.085 ± 0.019
Liver	g	1.038 ± 0.083	1.192 ± 0.207
Testis (L)	g	0.102 ± 0.022	
(R)	g	0.105 ± 0.013	
Ovary (L)	mg		6.3 ± 2.1
(R)	mg		6.7 ± 1.7
Uterus	g		0.083 ± 0.029
Thymus	g	0.025 ± 0.008	0.037 ± 0.007
Salivary gland (L)	g	0.062 ± 0.009	0.048 ± 0.007
(R)	g	0.063 ± 0.009	0.048 ± 0.006
Relative organ weight			
Brain	g%	1.70 ± 0.07	1.96 ± 0.19
Heart	g%	0.50 ± 0.03	0.51 ± 0.03
Lung	g%	0.60 ± 0.03	0.69 ± 0.06
Kidney (L)	g%	0.78 ± 0.07	0.69 ± 0.06
(R)	g%	0.83 ± 0.08	0.73 ± 0.06
Spleen	g%	0.30 ± 0.04	0.40 ± 0.05
Liver	g%	4.56 ± 0.19	5.70 ± 0.40
Testis (L)	g%	0.45 ± 0.10	
(R)	g%	0.46 ± 0.06	
Ovary (L)	mg%		30.49 ± 11.56
(R)	mg%		32.54 ± 8.50
Uterus	g%		0.40 ± 0.14
Thymus	g%	0.11 ± 0.03	0.18 ± 0.03
Salivary gland (L)	g%	0.27 ± 0.04	0.23 ± 0.03
(R)	g%	0.28 ± 0.04	0.23 ± 0.03

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

品系： B6D2F1/Slc

(C57BL/6NCrSlc ♀ × DBA/2CrSlc ♂) F1

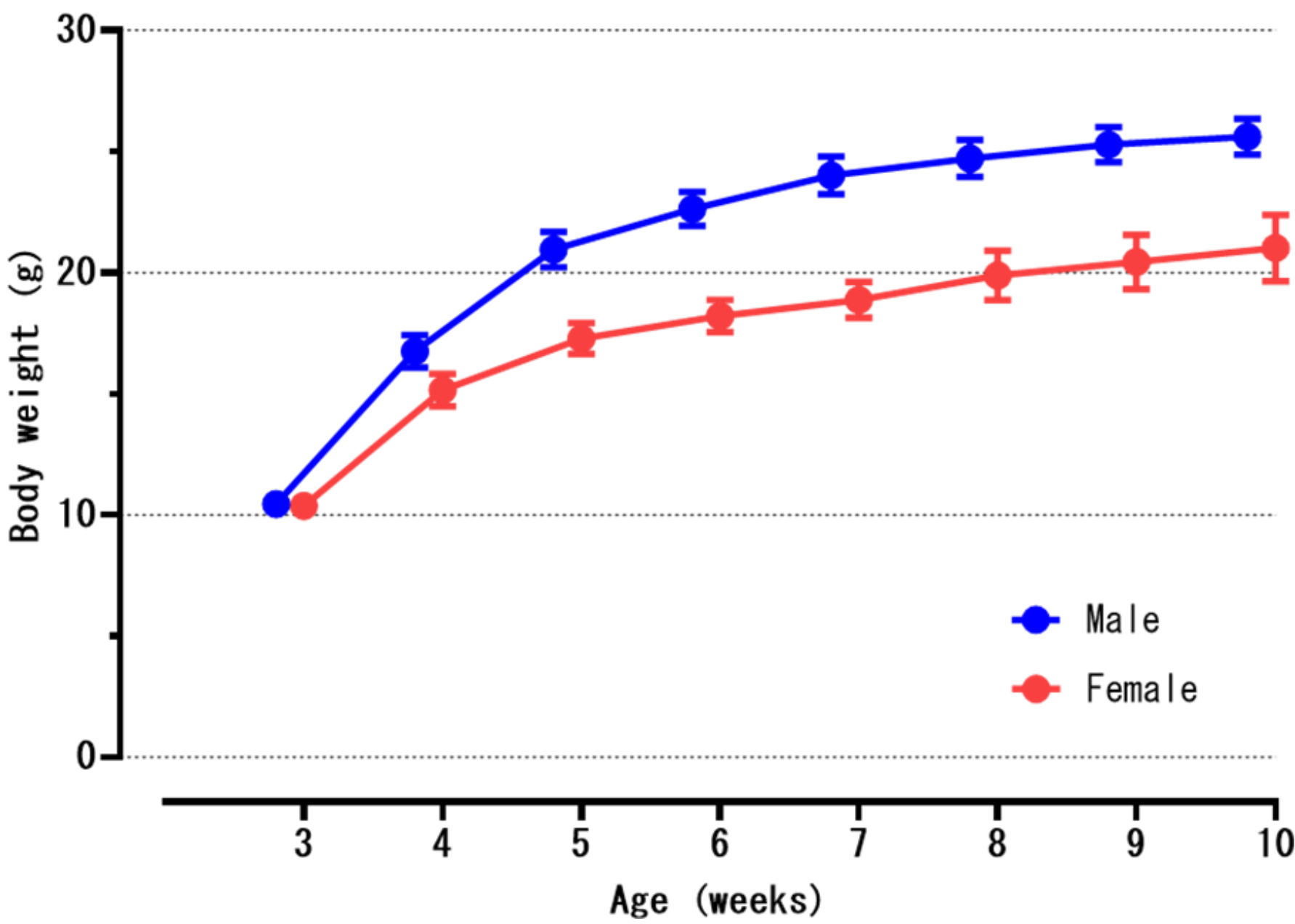
- 特色
- 具有雜交優勢，體質強健且環境適應性高
 - 可接受雙親品系之皮膚、組織及腫瘍移植

- 用途
- 抗癌藥物篩選
 - 基因改造動物製作等

毛色
黑色(aaBbCCDd)



■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	10.5	16.8	21.0	22.6	24.0	24.7	25.3	25.6
	S.D.	0.4	0.7	0.7	0.7	0.8	0.8	0.7	0.7
Female	Mean (g)	10.4	15.2	17.3	18.2	18.9	19.9	20.4	21.0
	S.D.	0.3	0.7	0.6	0.7	0.8	1.0	1.1	1.4

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	20.9 ± 5.2	24.8 ± 9.6
RBC	× 10 ⁴ /μL	966.7 ± 23.7	983.0 ± 29.8
HGB	g/dL	14.4 ± 0.4	14.9 ± 0.4
HCT	%	49.7 ± 1.1	50.7 ± 1.2
MCV	fL	51.5 ± 0.7	51.6 ± 1.1
MCH	pg	14.9 ± 0.2	15.1 ± 0.2
MCHC	g/dL	29.0 ± 0.4	29.3 ± 0.6
PLT	× 10 ⁴ /μL	96.6 ± 3.4	80.3 ± 9.3

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	75.4 ± 7.7	49.6 ± 1.6
ALT	U/L	34.0 ± 6.1	18.7 ± 1.7
ALP	U/L	105.5 ± 10.8	142.1 ± 9.8
ALB	g/dL	3.0 ± 0.1	3.4 ± 0.1
TP	g/dL	4.6 ± 0.1	4.7 ± 0.1
A/G		1.9 ± 0.2	2.5 ± 0.2
GLU	mg/dL	101.5 ± 20.3	122.9 ± 16.7
T-BIL	mg/dL	0.08 ± 0.02	0.05 ± 0.01
T-CHO	mg/dL	99.4 ± 5.2	80.2 ± 5.3
TG	mg/dL	97.2 ± 22.4	77.9 ± 28.8
PL	mg/dL	209.3 ± 10.0	171.9 ± 11.9
Ca	mg/dL	9.5 ± 0.2	9.8 ± 0.2
IP	mg/dL	9.4 ± 0.8	7.5 ± 0.7
BUN	mg/dL	18.7 ± 2.6	20.9 ± 2.5
CRE	mg/dL	0.11 ± 0.02	0.11 ± 0.01
Na	mEq/L	150.8 ± 1.5	149.3 ± 0.6
K	mEq/L	4.3 ± 0.3	3.9 ± 0.1
Cl	mEq/L	117.0 ± 0.9	116.1 ± 0.8

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	23.2 ± 0.8	18.8 ± 1.1
Absolute organ weight			
Brain	g	0.422 ± 0.015	0.429 ± 0.017
Heart	g	0.127 ± 0.007	0.102 ± 0.006
Lung	g	0.141 ± 0.008	0.129 ± 0.010
Kidney (L)	g	0.176 ± 0.012	0.132 ± 0.009
(R)	g	0.184 ± 0.013	0.135 ± 0.009
Spleen	g	0.065 ± 0.005	0.073 ± 0.008
Liver	g	0.914 ± 0.037	0.798 ± 0.065
Testis (L)	g	0.087 ± 0.009	
(R)	g	0.089 ± 0.007	
Ovary (L)	mg		7.1 ± 2.3
(R)	mg		7.2 ± 2.1
Uterus	g		0.109 ± 0.037
Thymus	g	0.031 ± 0.005	0.041 ± 0.004
Salivary gland (L)	g	0.076 ± 0.007	0.048 ± 0.005
(R)	g	0.076 ± 0.008	0.050 ± 0.007
Relative organ weight			
Brain	g%	1.82 ± 0.08	2.29 ± 0.14
Heart	g%	0.55 ± 0.02	0.54 ± 0.03
Lung	g%	0.61 ± 0.04	0.69 ± 0.05
Kidney (L)	g%	0.76 ± 0.04	0.70 ± 0.05
(R)	g%	0.79 ± 0.04	0.72 ± 0.05
Spleen	g%	0.28 ± 0.02	0.39 ± 0.03
Liver	g%	3.95 ± 0.12	4.23 ± 0.16
Testis (L)	g%	0.37 ± 0.04	
(R)	g%	0.39 ± 0.03	
Ovary (L)	mg%		37.48 ± 11.65
(R)	mg%		38.23 ± 10.55
Uterus	g%		0.58 ± 0.19
Thymus	g%	0.14 ± 0.02	0.22 ± 0.02
Salivary gland (L)	g%	0.33 ± 0.03	0.26 ± 0.03
(R)	g%	0.33 ± 0.04	0.27 ± 0.04

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

品系： B6C3F1/Slc

(C57BL/6NCrSlc ♀ × C3H/HeSlc ♂) F1

- 特色
- 具有雜交優勢，體質強健且環境適應性高
 - 可接受雙親品系之皮膚、組織及腫瘍移植

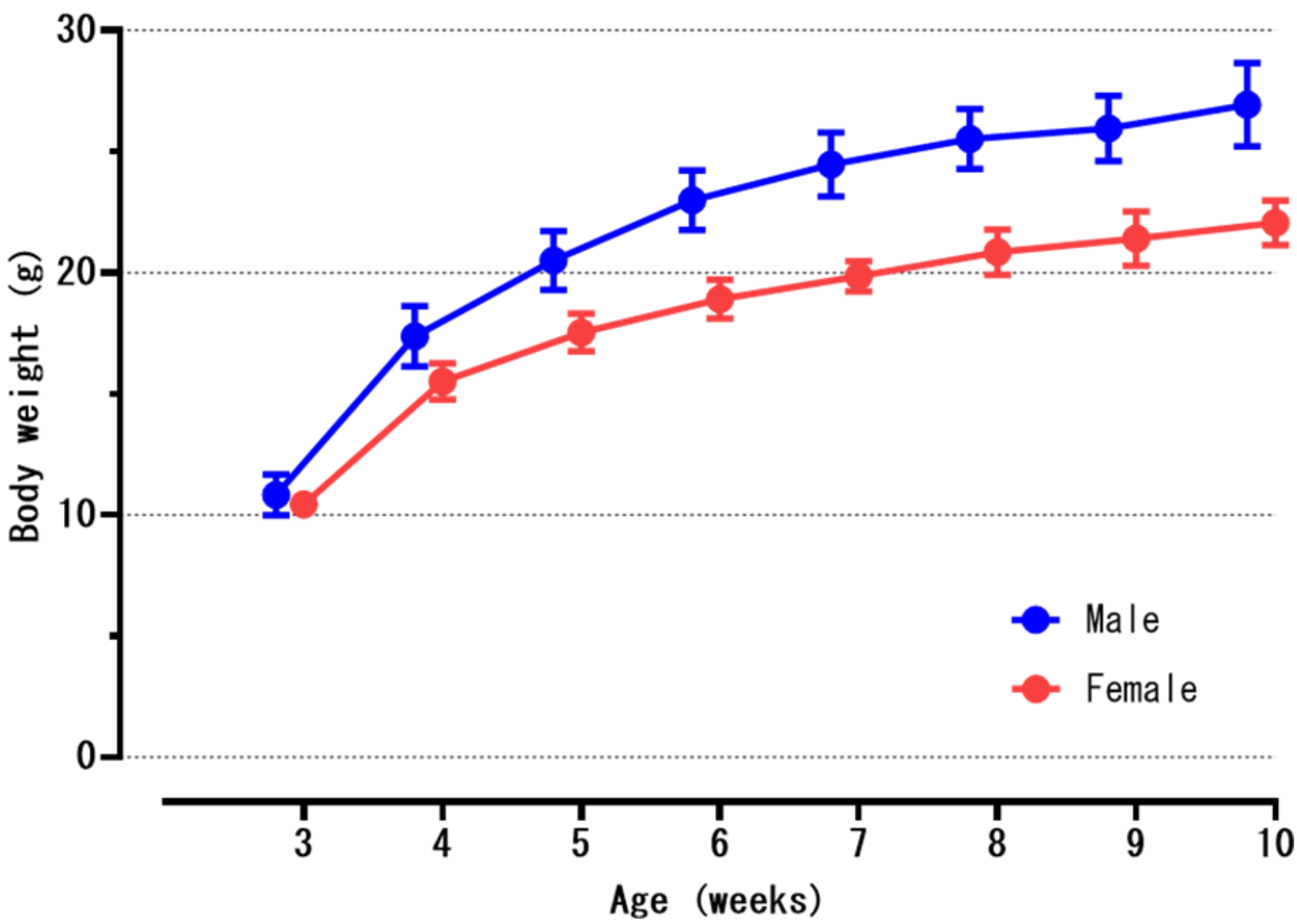
- 用途
- 長期毒性試驗
 - 致癌性試驗

毛色

野生色 (AaBBCCDD)



■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	10.8	17.4	20.5	23.0	24.5	25.5	26.0	26.9
	S.D.	0.8	1.2	1.2	1.2	1.3	1.3	1.4	1.7
Female	Mean (g)	10.4	15.5	17.5	18.9	19.9	20.8	21.4	22.1
	S.D.	0.4	0.8	0.8	0.8	0.6	0.9	1.1	0.9

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	23.4 ± 4.9	32.1 ± 4.2
RBC	× 10 ⁴ /μL	947.1 ± 11.5	942.6 ± 16.9
HGB	g/dL	15.0 ± 0.3	15.2 ± 0.3
HCT	%	50.7 ± 0.8	50.3 ± 1.0
MCV	fL	53.5 ± 0.5	53.4 ± 0.5
MCH	pg	15.8 ± 0.1	16.1 ± 0.2
MCHC	g/dL	29.5 ± 0.4	30.1 ± 0.4
PLT	× 10 ⁴ /μL	96.1 ± 3.8	85.7 ± 3.7

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	56.4 ± 15.8	44.3 ± 5.3
ALT	U/L	32.9 ± 9.0	19.4 ± 2.4
ALP	U/L	100.1 ± 11.8	161.5 ± 9.7
ALB	g/dL	3.0 ± 0.2	3.5 ± 0.1
TP	g/dL	4.8 ± 0.2	5.0 ± 0.1
A/G		1.7 ± 0.2	2.3 ± 0.2
GLU	mg/dL	104.3 ± 22.5	129.8 ± 20.2
T-BIL	mg/dL	0.06 ± 0.02	0.03 ± 0.01
T-CHO	mg/dL	119.3 ± 14.0	103.9 ± 6.2
TG	mg/dL	92.8 ± 41.2	101.2 ± 55.9
PL	mg/dL	242.7 ± 29.7	194.4 ± 13.8
Ca	mg/dL	9.8 ± 0.2	9.9 ± 0.3
IP	mg/dL	9.4 ± 1.6	11.8 ± 2.1
BUN	mg/dL	23.0 ± 2.1	21.0 ± 2.5
CRE	mg/dL	0.13 ± 0.04	0.12 ± 0.02
Na	mEq/L	151.8 ± 2.3	152.2 ± 0.7
K	mEq/L	4.6 ± 0.5	4.6 ± 0.9
Cl	mEq/L	117.9 ± 1.9	117.5 ± 0.9

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	24.3 ± 1.5	20.0 ± 0.7
Absolute organ weight			
Brain	g	0.466 ± 0.015	0.473 ± 0.012
Heart	g	0.121 ± 0.011	0.102 ± 0.008
Lung	g	0.148 ± 0.011	0.141 ± 0.009
Kidney (L)	g	0.187 ± 0.016	0.135 ± 0.009
(R)	g	0.197 ± 0.017	0.145 ± 0.010
Spleen	g	0.069 ± 0.010	0.079 ± 0.012
Liver	g	0.978 ± 0.083	0.845 ± 0.055
Testis (L)	g	0.098 ± 0.011	
(R)	g	0.101 ± 0.013	
Ovary (L)	mg		7.6 ± 2.1
(R)	mg		8.1 ± 1.6
Uterus	g		0.091 ± 0.023
Thymus	g	0.033 ± 0.006	0.049 ± 0.007
Salivary gland (L)	g	0.087 ± 0.009	0.059 ± 0.006
(R)	g	0.091 ± 0.008	0.060 ± 0.005
Relative organ weight			
Brain	g%	1.93 ± 0.13	2.37 ± 0.11
Heart	g%	0.50 ± 0.03	0.51 ± 0.04
Lung	g%	0.61 ± 0.04	0.71 ± 0.05
Kidney (L)	g%	0.77 ± 0.06	0.67 ± 0.04
(R)	g%	0.81 ± 0.07	0.73 ± 0.05
Spleen	g%	0.28 ± 0.03	0.39 ± 0.05
Liver	g%	4.03 ± 0.22	4.23 ± 0.19
Testis (L)	g%	0.40 ± 0.04	
(R)	g%	0.42 ± 0.05	
Ovary (L)	mg%		38.12 ± 10.35
(R)	mg%		40.66 ± 8.38
Uterus	g%		0.46 ± 0.12
Thymus	g%	0.14 ± 0.03	0.24 ± 0.03
Salivary gland (L)	g%	0.36 ± 0.04	0.29 ± 0.03
(R)	g%	0.38 ± 0.04	0.30 ± 0.03

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

品系： CB6F1/Slc

(BALB/cCrSlc ♀ × C57BL/6NCrSlc ♂) F1

- 特色
- 具有雜交優勢，體質強健且環境適應性高
 - 可接受雙親品系之皮膚、組織及腫瘍移植

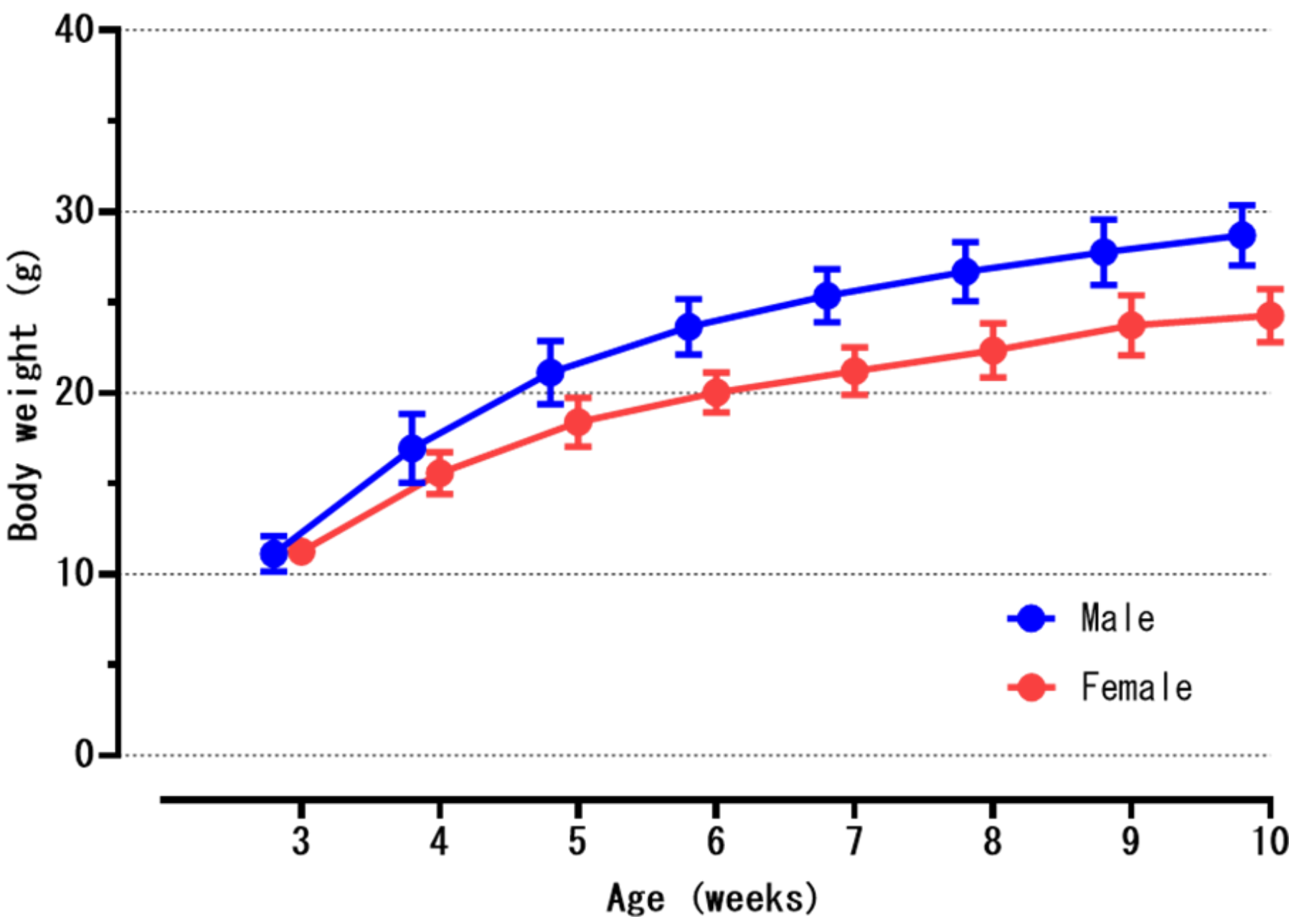
- 用途
- 細胞移植實驗

毛色

野生色(AaBbCcDD)



■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	11.1	16.9	21.1	23.6	25.4	26.7	27.8	28.7
	S.D.	1.0	1.9	1.7	1.5	1.5	1.6	1.8	1.7
Female	Mean (g)	11.3	15.6	18.4	20.0	21.2	22.3	23.7	24.3
	S.D.	0.7	1.2	1.4	1.1	1.3	1.5	1.7	1.5

■血液學檢查

Items	Unit	Male	Female
		10 weeks n=9	10 weeks n=10
WBC	× 10 ² /μL	22.8 ± 5.5	31.9 ± 8.0
RBC	× 10 ⁴ /μL	1009.0 ± 35.8	1038.1 ± 15.7
HGB	g/dL	16.0 ± 0.5	16.5 ± 0.4
HCT	%	51.4 ± 1.4	52.4 ± 1.0
MCV	fL	51.0 ± 0.7	50.4 ± 0.6
MCH	pg	15.9 ± 0.2	15.9 ± 0.1
MCHC	g/dL	31.1 ± 0.5	31.4 ± 0.4
PLT	× 10 ⁴ /μL	109.6 ± 4.3	102.1 ± 3.5

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

■血液生化學檢查

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	41.1 ± 7.0	41.3 ± 3.5
ALT	U/L	16.3 ± 2.2	18.2 ± 2.1
ALP	U/L	97.4 ± 3.8	127.9 ± 10.6
ALB	g/dL	3.2 ± 0.1	3.4 ± 0.1
TP	g/dL	4.8 ± 0.1	4.8 ± 0.2
A/G		2.0 ± 0.3	2.5 ± 0.4
GLU	mg/dL	96.5 ± 21.9	126.1 ± 12.3
T-BIL	mg/dL	0.05 ± 0.01	0.02 ± 0.01
T-CHO	mg/dL	108.6 ± 8.3	85.5 ± 8.9
TG	mg/dL	86.0 ± 14.0	102.4 ± 46.9
PL	mg/dL	217.9 ± 13.6	154.0 ± 15.5
Ca	mg/dL	9.6 ± 0.2	9.6 ± 0.2
IP	mg/dL	7.8 ± 0.8	7.1 ± 0.6
BUN	mg/dL	20.4 ± 3.0	19.5 ± 1.1
CRE	mg/dL	0.11 ± 0.02	0.12 ± 0.02
Na	mEq/L	147.0 ± 1.3	146.6 ± 1.1
K	mEq/L	4.0 ± 0.2	3.5 ± 0.1
Cl	mEq/L	90.3 ± 1.1	90.0 ± 1.5

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

■器官重量

Items	Unit	Male	Female
		10 weeks n=19	10 weeks n=20
Body weight	g	25.7 ± 1.6	21.8 ± 1.3
Absolute organ weight			
Brain	g	0.464 ± 0.014	0.470 ± 0.014
Heart	g	0.132 ± 0.009	0.114 ± 0.007
Lung	g	0.151 ± 0.010	0.146 ± 0.010
Kidney (L)	g	0.204 ± 0.015	0.145 ± 0.010
(R)	g	0.213 ± 0.016	0.149 ± 0.010
Spleen	g	0.070 ± 0.008	0.091 ± 0.011
Liver	g	1.079 ± 0.078	0.942 ± 0.084
Testis (L)	g	0.082 ± 0.007	
(R)	g	0.084 ± 0.009	
Ovary (L)	mg		7.4 ± 2.5
(R)	mg		7.7 ± 2.3
Uterus	g		0.083 ± 0.017
Thymus	g	0.035 ± 0.006	0.048 ± 0.007
Salivary gland (L)	g	0.078 ± 0.008	0.055 ± 0.010
(R)	g	0.079 ± 0.007	0.053 ± 0.008
Relative organ weight			
Brain	g%	1.81 ± 0.14	2.16 ± 0.11
Heart	g%	0.51 ± 0.04	0.52 ± 0.02
Lung	g%	0.59 ± 0.04	0.67 ± 0.04
Kidney (L)	g%	0.79 ± 0.06	0.67 ± 0.04
(R)	g%	0.83 ± 0.06	0.69 ± 0.05
Spleen	g%	0.27 ± 0.02	0.41 ± 0.04
Liver	g%	4.19 ± 0.16	4.31 ± 0.19
Testis (L)	g%	0.32 ± 0.03	
(R)	g%	0.33 ± 0.03	
Ovary (L)	mg%		34.25 ± 12.19
(R)	mg%		35.41 ± 11.05
Uterus	g%		0.38 ± 0.08
Thymus	g%	0.14 ± 0.02	0.22 ± 0.03
Salivary gland (L)	g%	0.30 ± 0.03	0.25 ± 0.05
(R)	g%	0.31 ± 0.03	0.25 ± 0.04

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

小鼠(免疫缺陷)

BALB/cSlc-nu/nu

品系：BALB/cSlc-nu/nu

特色

- 由 BALB/c 小鼠回交導入 nu 基因所建立之 BALB/c 裸鼠
- 與正常小鼠相比體型較小
- 解剖學上無胸腺
- 免疫學上缺乏 T 細胞功能
- 巨噬細胞活性較高
- NK(自然殺手細胞)活性較高

用途

- 免疫學及癌症研究¹⁾
- 抗癌藥物篩選²⁾
- 單株抗體製備



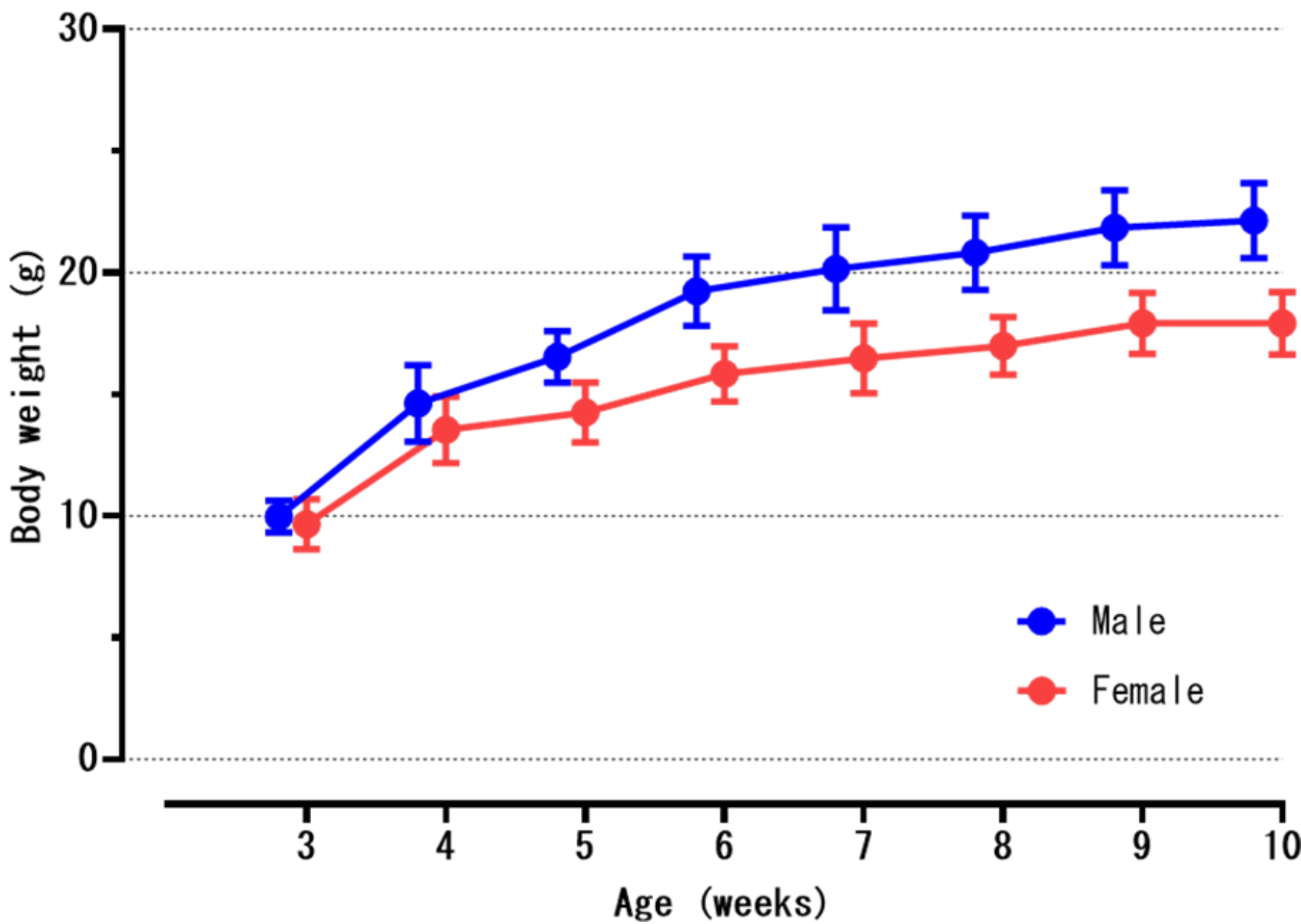
1) Oda et al. Cancer Sci. 2010. 101:173-179.
2) Okuno et al. Cancer Res. 2000. 60: 2988-2995.

H-2 單體型
H2^d

來源

1976年自東京大學醫科學研究所引進

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	Mean (g)	10.0	14.6	16.5	19.2	20.2	20.8	21.8	22.1
	S.D.	0.7	1.6	1.1	1.4	1.7	1.5	1.5	1.5
Female (n=20)	Mean (g)	9.7	13.5	14.3	15.8	16.5	17.0	17.9	17.9
	S.D.	1.0	1.4	1.2	1.1	1.4	1.2	1.3	1.3

飼料:FR-1(フナバシファーム)

■血液學検査

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=9	n=10
WBC	× 10 ² /μL	21.4 ± 4.3	30.9 ± 5.9
RBC	× 10 ⁴ /μL	961.4 ± 38.1	867.6 ± 49.8
HGB	g/dL	15.1 ± 0.5	13.9 ± 0.7
HCT	%	48.6 ± 1.7	44.5 ± 2.4
MCV	fL	50.6 ± 1.0	51.3 ± 0.8
MCH	pg	15.7 ± 0.2	16.0 ± 0.3
MCHC	g/dL	31.0 ± 0.5	31.2 ± 0.4
PLT	× 10 ⁴ /μL	91.6 ± 21.7	103.2 ± 5.6

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

■血液生化学検査

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	n=10
AST	U/L	80.1 ± 28.5	76.1 ± 13.8
ALT	U/L	37.2 ± 8.7	30.2 ± 7.3
ALP	U/L	114.0 ± 9.5	118.7 ± 9.0
ALB	g/dL	2.9 ± 0.1	3.0 ± 0.1
TP	g/dL	4.6 ± 0.2	4.3 ± 0.2
A/G		1.7 ± 0.2	2.3 ± 0.3
GLU	mg/dL	92.0 ± 17.6	128.8 ± 20.2
T-BIL	mg/dL	0.12 ± 0.02	0.07 ± 0.01
T-CHO	mg/dL	77.0 ± 7.3	60.8 ± 2.4
TG	mg/dL	111.1 ± 25.2	77.7 ± 28.3
PL	mg/dL	171.7 ± 20.2	128.5 ± 9.1
Ca	mg/dL	9.8 ± 0.3	9.3 ± 0.2
IP	mg/dL	6.8 ± 0.7	7.2 ± 1.1
BUN	mg/dL	19.6 ± 2.5	19.2 ± 3.0
CRE	mg/dL	0.13 ± 0.04	0.10 ± 0.01
Na	mEq/L	152.4 ± 1.9	151.8 ± 1.4
K	mEq/L	3.8 ± 0.3	3.6 ± 0.3
Cl	mEq/L	114.3 ± 1.5	115.1 ± 1.7

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

■器官重量

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	n=20
Body weight	g	20.1 ± 1.1	16.5 ± 1.0
Absolute organ weight			
Brain	g	0.397 ± 0.014	0.396 ± 0.015
Heart	g	0.118 ± 0.009	0.096 ± 0.007
Lung	g	0.129 ± 0.010	0.112 ± 0.014
Kidney (L)	g	0.193 ± 0.014	0.142 ± 0.012
(R)	g	0.199 ± 0.018	0.144 ± 0.012
Spleen	g	0.089 ± 0.013	0.084 ± 0.012
Liver	g	0.969 ± 0.059	0.801 ± 0.066
Testis (L)	g	0.078 ± 0.007	
(R)	g	0.080 ± 0.008	
Ovary (L)	mg		3.5 ± 1.7
(R)	mg		3.6 ± 1.9
Uterus	g		0.078 ± 0.026
Salivary gland (L)	g	0.065 ± 0.007	0.042 ± 0.005
(R)	g	0.071 ± 0.021	0.045 ± 0.008
Relative organ weight			
Brain	g%	1.98 ± 0.10	2.41 ± 0.12
Heart	g%	0.59 ± 0.04	0.59 ± 0.04
Lung	g%	0.64 ± 0.04	0.68 ± 0.06
Kidney (L)	g%	0.96 ± 0.04	0.86 ± 0.05
(R)	g%	0.99 ± 0.05	0.87 ± 0.04
Spleen	g%	0.44 ± 0.06	0.51 ± 0.06
Liver	g%	4.81 ± 0.16	4.86 ± 0.22
Testis (L)	g%	0.39 ± 0.03	
(R)	g%	0.39 ± 0.03	
Ovary (L)	mg%		21.51 ± 10.40
(R)	mg%		21.77 ± 11.54
Uterus	g%		0.47 ± 0.15
Salivary gland (L)	g%	0.32 ± 0.03	0.26 ± 0.03
(R)	g%	0.35 ± 0.10	0.27 ± 0.04

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

品系： KSN/Slc

特色

- 由東京大學醫科學研究所須藤、鈴木等將 BALB/c 裸鼠來源的 nu 基因導入 DDD/1 小鼠所建立
- 體質強健，繁殖能力高
- 乳腺發育良好，可進行純合子間交配與繁殖
- 可進行人類癌等異種腫瘤細胞之移植與傳代

用途

- 免疫學及癌症研究 ¹⁾
- 抗癌藥物篩選 ²⁾

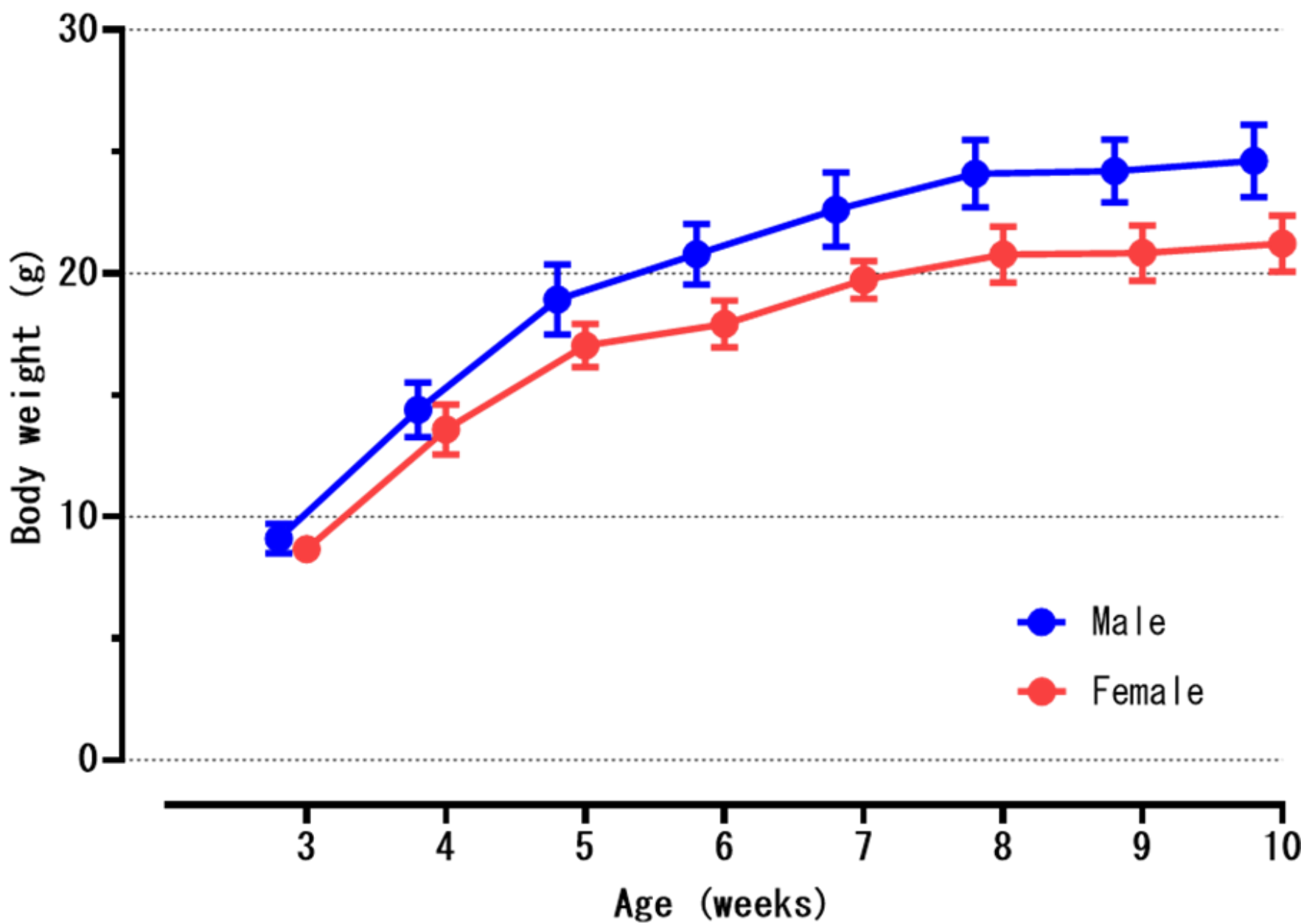


來源

1985年自東京大學醫科學研究所引進

1) Mitsui et al. Drug Deliv. 2002. 9:249-252.
2) Lee et al. Exp. Anim. 2003. 52: 371-375.

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	Mean (g)	9.1	14.4	18.9	20.8	22.6	24.1	24.2	24.6
	S.D.	0.6	1.1	1.4	1.2	1.5	1.4	1.3	1.5
Female	Mean (g)	8.7	13.6	17.0	17.9	19.7	20.8	20.8	21.2
	S.D.	0.5	1.0	0.9	1.0	0.8	1.2	1.1	1.2

飼料:FR-1(フナバシファーム)

■血液學検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	28.8 ± 7.4	100.8 ± 40.4
RBC	× 10 ⁴ /μL	902.2 ± 30.7	875.0 ± 45.4
HGB	g/dL	15.2 ± 0.5	15.2 ± 0.7
HCT	%	45.7 ± 2.0	45.4 ± 1.9
MCV	fL	50.7 ± 0.6	52.0 ± 1.1
MCH	pg	16.8 ± 0.2	17.4 ± 0.5
MCHC	g/dL	33.3 ± 0.6	33.4 ± 0.6
PLT	× 10 ⁴ /μL	82.4 ± 6.3	66.8 ± 14.6

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

■血液生化学検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	59.3 ± 20.9	60.5 ± 16.3
ALT	U/L	28.6 ± 4.1	31.8 ± 13.7
ALP	U/L	132.1 ± 12.7	116.0 ± 7.6
ALB	g/dL	3.1 ± 0.1	3.3 ± 0.2
TP	g/dL	4.7 ± 0.2	4.5 ± 0.2
A/G		2.0 ± 0.1	2.6 ± 0.3
GLU	mg/dL	137.2 ± 25.5	187.1 ± 30.9
T-BIL	mg/dL	0.15 ± 0.02	0.11 ± 0.02
T-CHO	mg/dL	107.3 ± 6.8	69.1 ± 3.7
TG	mg/dL	105.6 ± 33.2	58.6 ± 15.1
PL	mg/dL	219.7 ± 9.6	138.5 ± 11.4
Ca	mg/dL	9.9 ± 0.3	9.4 ± 0.1
IP	mg/dL	6.5 ± 1.2	6.6 ± 0.8
BUN	mg/dL	28.4 ± 7.0	21.6 ± 2.1
CRE	mg/dL	0.14 ± 0.01	0.12 ± 0.02
Na	mEq/L	148.1 ± 0.8	147.7 ± 1.2
K	mEq/L	4.0 ± 0.3	4.0 ± 0.2
Cl	mEq/L	106.2 ± 1.2	107.4 ± 1.0

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

■器官重量

Items	Unit	Male	Female
		10 weeks n=20	10 weeks n=20
Body weight	g	23.0 ± 1.2	20.1 ± 1.1
Absolute organ weight			
Brain	g	0.363 ± 0.018	0.368 ± 0.017
Heart	g	0.117 ± 0.009	0.103 ± 0.010
Lung	g	0.142 ± 0.012	0.132 ± 0.012
Kidney (L)	g	0.226 ± 0.023	0.168 ± 0.014
(R)	g	0.232 ± 0.024	0.173 ± 0.016
Spleen	g	0.076 ± 0.007	0.089 ± 0.013
Liver	g	1.039 ± 0.085	0.918 ± 0.063
Testis (L)	g	0.083 ± 0.013	
(R)	g	0.087 ± 0.010	
Ovary (L)	mg		4.9 ± 1.9
(R)	mg		4.8 ± 1.8
Uterus	g		0.104 ± 0.031
Salivary gland (L)	g	0.075 ± 0.008	0.054 ± 0.008
(R)	g	0.075 ± 0.009	0.053 ± 0.007
Relative organ weight			
Brain	g%	1.58 ± 0.06	1.83 ± 0.07
Heart	g%	0.51 ± 0.03	0.51 ± 0.04
Lung	g%	0.62 ± 0.04	0.66 ± 0.05
Kidney (L)	g%	0.98 ± 0.07	0.84 ± 0.04
(R)	g%	1.01 ± 0.08	0.86 ± 0.05
Spleen	g%	0.33 ± 0.02	0.44 ± 0.06
Liver	g%	4.52 ± 0.24	4.57 ± 0.17
Testis (L)	g%	0.36 ± 0.05	
(R)	g%	0.38 ± 0.04	
Ovary (L)	mg%		23.97 ± 8.54
(R)	mg%		23.60 ± 8.48
Uterus	g%		0.52 ± 0.14
Salivary gland (L)	g%	0.33 ± 0.03	0.27 ± 0.03
(R)	g%	0.33 ± 0.03	0.26 ± 0.03

Values are mean ± S.D.
飼料:FR-1(フナバシファーム)

小鼠(採卵數)

■ 過排卵處理下之採卵數(單次胚)

比較三種小鼠品系在體外受精及胚移植所使用之過排卵處理後的採卵數。

Number of eggs	Number of mice		
	C57BL/6NCrSlc	C57BL/6JmsSlc	B6D2F1/Slc
0	0	0	0
1-9	58	31	11
10-19	72	28	6
20-29	38	20	29
30-39	18	2	23
40-49	2	0	12
50-59	0	0	5
60-69	0	0	1
70-79	0	0	0

使用動物：C57BL/6NCrSlc (9週齡、n=188)
C57BL/6JmsSlc (9週齡、n=81)
B6D2F1/Slc (9週齡、n=87)
過排卵處理：PMSG-hCG (5 IU/隻、間隔48小時)
採卵方式：與同品系雄鼠交配，確認陰道栓後之雌鼠取卵。

品系： Slc:SD

特色

- 性情溫馴，易於操作
- 體型較大且生長發育良好
- 繁殖能力高

用途

廣泛用於各類一般研究領域

- 安全性試驗
- 毒性評估¹⁾
- 藥理試驗
- 免疫與代謝研究



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

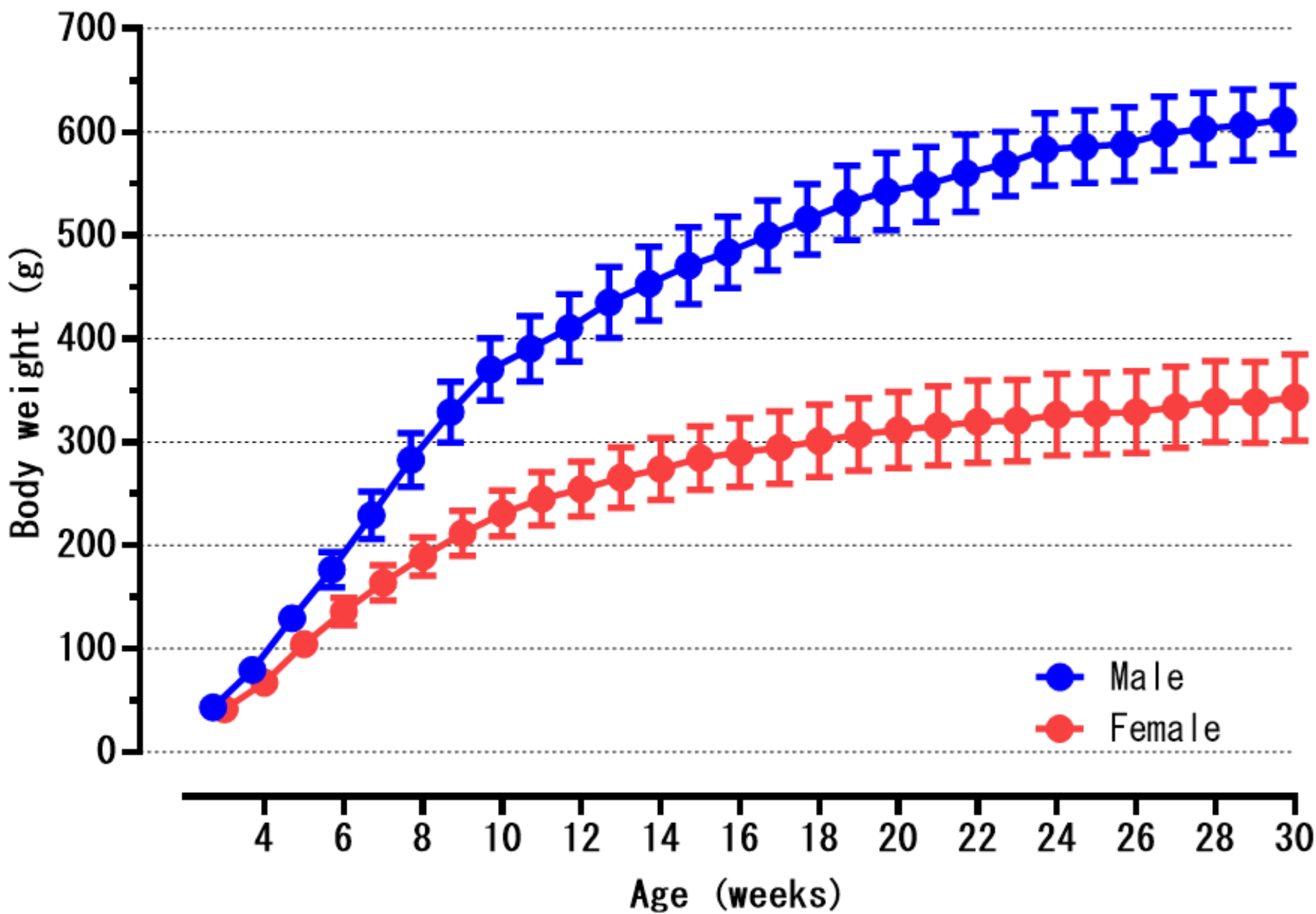
毛色

白化型

來源

1968年由美國 Charles River 公司引進

■ 體重曲線



		Age (weeks)													
		3	4	5	6	7	8	9	10	11	12	13	14	15	16
Male	Mean (g)	43.4	79.5	129.5	176.5	229.2	282.5	329.0	370.3	390.0	410.3	435.1	453.2	470.4	483.6
	S.D.	1.4	4.2	11.1	17.1	22.9	26.2	29.3	30.2	31.8	32.7	34.5	35.9	37.4	34.5
Female	Mean (g)	41.4	67.3	104.3	135.9	163.7	189.3	211.6	231.0	244.9	254.3	265.5	273.8	284.4	289.9
	S.D.	1.8	5.9	10.1	13.5	17.1	18.7	21.6	22.2	25.8	26.7	29.6	30.1	30.6	33.2

		Age (weeks)													
		17	18	19	20	21	22	23	24	25	26	27	28	29	30
Male	Mean (g)	499.9	515.5	531.5	542.3	549.1	560.2	569.1	583.3	585.7	588.4	598.5	603.3	606.8	612.0
	S.D.	33.6	34.0	35.9	37.4	36.3	37.6	31.1	35.2	35.3	35.9	36.1	34.8	34.4	33.3
Female	Mean (g)	294.5	300.9	307.2	311.7	315.5	319.5	320.7	326.6	327.5	328.8	333.9	339.0	338.3	343.2
	S.D.	35.2	35.3	35.1	36.9	38.5	39.9	39.4	39.8	39.5	39.6	39.2	39.3	39.4	41.9

■血液學檢查

Items	Unit	Male		Female	
		10 weeks n=10	30 weeks n=10	10 weeks n=10	30 weeks n=10
WBC	× 10 ² /μL	65.7 ± 16.3	46.5 ± 6.0	36.6 ± 4.2	33.1 ± 6.1
RBC	× 10 ⁴ /μL	814.6 ± 35.1	906.2 ± 29.6	774.3 ± 20.2	801.9 ± 26.0
HGB	g/dL	14.6 ± 0.3	14.1 ± 0.2	14.1 ± 0.3	14.4 ± 0.8
HCT	%	45.6 ± 1.3	45.2 ± 1.2	42.7 ± 0.8	44.7 ± 1.1
MCV	fL	56.1 ± 1.9	49.9 ± 1.3	55.2 ± 0.9	55.8 ± 0.7
MCH	pg	18.0 ± 0.7	15.6 ± 0.4	18.2 ± 0.3	17.9 ± 1.1
MCHC	g/dL	32.1 ± 0.5	31.2 ± 0.5	33.1 ± 0.4	32.2 ± 2.0
PLT	× 10 ⁴ /μL	83.0 ± 11.2	82.1 ± 5.9	75.1 ± 13.6	69.6 ± 8.3

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

■血液生化學檢查

Items	Unit	Male		Female	
		10 weeks n=10	30 weeks n=10	10 weeks n=10	30 weeks n=10
AST	U/L	121.5 ± 19.4	97.8 ± 26.9	107.3 ± 11.2	119.8 ± 59.2
ALT	U/L	45.8 ± 7.0	59.9 ± 11.5	36.3 ± 3.4	50.4 ± 13.5
ALP	U/L	280.4 ± 27.8	91.0 ± 16.1	132.5 ± 22.4	40.1 ± 9.7
ALB	g/dL	4.6 ± 0.2	4.4 ± 0.2	4.7 ± 0.2	5.7 ± 0.4
TP	g/dL	6.0 ± 0.3	6.6 ± 0.4	6.2 ± 0.3	7.6 ± 0.4
A/G		3.1 ± 0.5	2.0 ± 0.2	3.3 ± 0.6	3.2 ± 0.4
GLU	mg/dL	103.1 ± 28.4	169.5 ± 29.6	96.1 ± 12.1	139.1 ± 18.5
T-BIL	mg/dL	0.04 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.07 ± 0.02
T-CHO	mg/dL	58.4 ± 16.0	83.3 ± 14.3	82.7 ± 7.9	127.4 ± 24.8
TG	mg/dL	44.3 ± 6.4	80.2 ± 29.0	32.5 ± 7.4	89.2 ± 50.9
PL	mg/dL	95.9 ± 16.9	128.6 ± 20.5	135.6 ± 11.4	223.5 ± 34.5
Ca	mg/dL	10.0 ± 0.5	10.4 ± 0.2	10.0 ± 0.5	11.1 ± 0.3
IP	mg/dL	7.1 ± 0.7	4.6 ± 0.4	6.2 ± 0.2	4.7 ± 0.4
BUN	mg/dL	14.1 ± 2.8	14.5 ± 1.6	13.3 ± 2.3	14.7 ± 2.1
CRE	mg/dL	0.32 ± 0.05	0.37 ± 0.05	0.29 ± 0.02	0.37 ± 0.04
Na	mEq/L	145.0 ± 1.1	144.1 ± 0.8	144.2 ± 0.7	144.4 ± 1.3
K	mEq/L	4.6 ± 0.3	4.5 ± 0.4	4.5 ± 0.2	4.2 ± 0.3
Cl	mEq/L	102.1 ± 1.9	104.3 ± 1.2	103.3 ± 0.9	102.9 ± 1.4

Values are mean ± 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	295.9 ± 11.7	587.6 ± 37.0	194.6 ± 15.9	327.1 ± 40.4
Absolute organ weight					
Brain	g	1.990 ± 0.081	2.216 ± 0.079	1.911 ± 0.074	2.035 ± 0.077
Heart	g	0.903 ± 0.064	1.342 ± 0.095	0.655 ± 0.048	0.886 ± 0.073
Lung	g	1.099 ± 0.058	1.675 ± 0.115	0.875 ± 0.069	1.179 ± 0.117
Kidney (L)	g	0.930 ± 0.055	1.468 ± 0.161	0.721 ± 0.066	0.898 ± 0.094
(R)	g	0.929 ± 0.047	1.457 ± 0.171	0.737 ± 0.063	0.914 ± 0.086
Spleen	g	0.514 ± 0.053	0.840 ± 0.125	0.399 ± 0.064	0.552 ± 0.089
Liver	g	8.258 ± 0.619	14.382 ± 1.137	5.601 ± 0.425	8.314 ± 1.228
Testis (L)	g	1.542 ± 0.091	1.976 ± 0.156		
(R)	g	1.535 ± 0.082	1.924 ± 0.149		
Ovary (L)	mg			38.1 ± 5.6	38.1 ± 8.2
(R)	mg			39.4 ± 7.1	37.9 ± 12.4
Uterus	g			0.370 ± 0.065	0.654 ± 0.107
Adrenal (L)	mg	23.0 ± 3.2	26.4 ± 3.0	30.0 ± 2.1	31.4 ± 3.0
(R)	mg	20.9 ± 4.2	25.2 ± 2.9	27.2 ± 3.3	28.9 ± 3.3
Thymus	g	0.430 ± 0.078	0.200 ± 0.040	0.379 ± 0.050	0.203 ± 0.045
Pituitary	mg	8.5 ± 1.9	11.6 ± 2.0	11.7 ± 2.8	16.0 ± 5.4
Thyroid gland	mg	12.1 ± 4.4	20.2 ± 6.2	12.6 ± 3.4	15.6 ± 5.4
Salivary gland (L)	g	0.246 ± 0.025	0.386 ± 0.030	0.179 ± 0.018	0.240 ± 0.021
(R)	g	0.250 ± 0.025	0.382 ± 0.037	0.186 ± 0.018	0.242 ± 0.024
Relative organ weight					
Brain	g%	0.67 ± 0.03	0.38 ± 0.02	0.99 ± 0.06	0.63 ± 0.07
Heart	g%	0.30 ± 0.01	0.23 ± 0.01	0.34 ± 0.01	0.27 ± 0.02
Lung	g%	0.37 ± 0.01	0.29 ± 0.02	0.45 ± 0.02	0.36 ± 0.02
Kidney (L)	g%	0.31 ± 0.01	0.25 ± 0.02	0.37 ± 0.03	0.28 ± 0.03
(R)	g%	0.31 ± 0.01	0.25 ± 0.02	0.38 ± 0.02	0.28 ± 0.02
Spleen	g%	0.17 ± 0.02	0.14 ± 0.02	0.21 ± 0.03	0.17 ± 0.02
Liver	g%	2.79 ± 0.13	2.45 ± 0.18	2.88 ± 0.08	2.54 ± 0.21
Testis (L)	g%	0.52 ± 0.03	0.34 ± 0.02		
(R)	g%	0.52 ± 0.03	0.33 ± 0.02		
Ovary (L)	mg%			19.71 ± 3.45	11.82 ± 3.28
(R)	mg%			20.29 ± 3.86	11.64 ± 3.81
Uterus	g%			0.19 ± 0.03	0.20 ± 0.04
Adrenal (L)	mg%	7.78 ± 1.13	4.51 ± 0.67	15.43 ± 1.10	9.66 ± 0.89
(R)	mg%	7.07 ± 1.51	4.29 ± 0.47	13.99 ± 1.41	8.87 ± 0.88
Thymus	g%	0.14 ± 0.02	0.03 ± 0.01	0.19 ± 0.02	0.06 ± 0.01
Pituitary	mg%	2.86 ± 0.58	1.97 ± 0.34	6.01 ± 1.23	4.97 ± 1.77
Thyroid gland	mg%	4.13 ± 1.67	3.46 ± 1.15	6.56 ± 2.06	4.77 ± 1.51
Salivary gland (L)	g%	0.08 ± 0.01	0.07 ± 0.01	0.09 ± 0.01	0.07 ± 0.01
(R)	g%	0.08 ± 0.01	0.07 ± 0.01	0.10 ± 0.01	0.07 ± 0.01

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

品系： Slc:Wistar

- 特色
- 性情溫馴, 易於操作
 - 體型較小且生長發育良好
 - 對環境適應性高, 生理狀態穩定

- 用途
- 廣泛用於各類一般研究領域
- 藥理試驗^{1), 2)}
 - 安全性試驗
 - 免疫與代謝研究

毛色

白化型 (Albino)

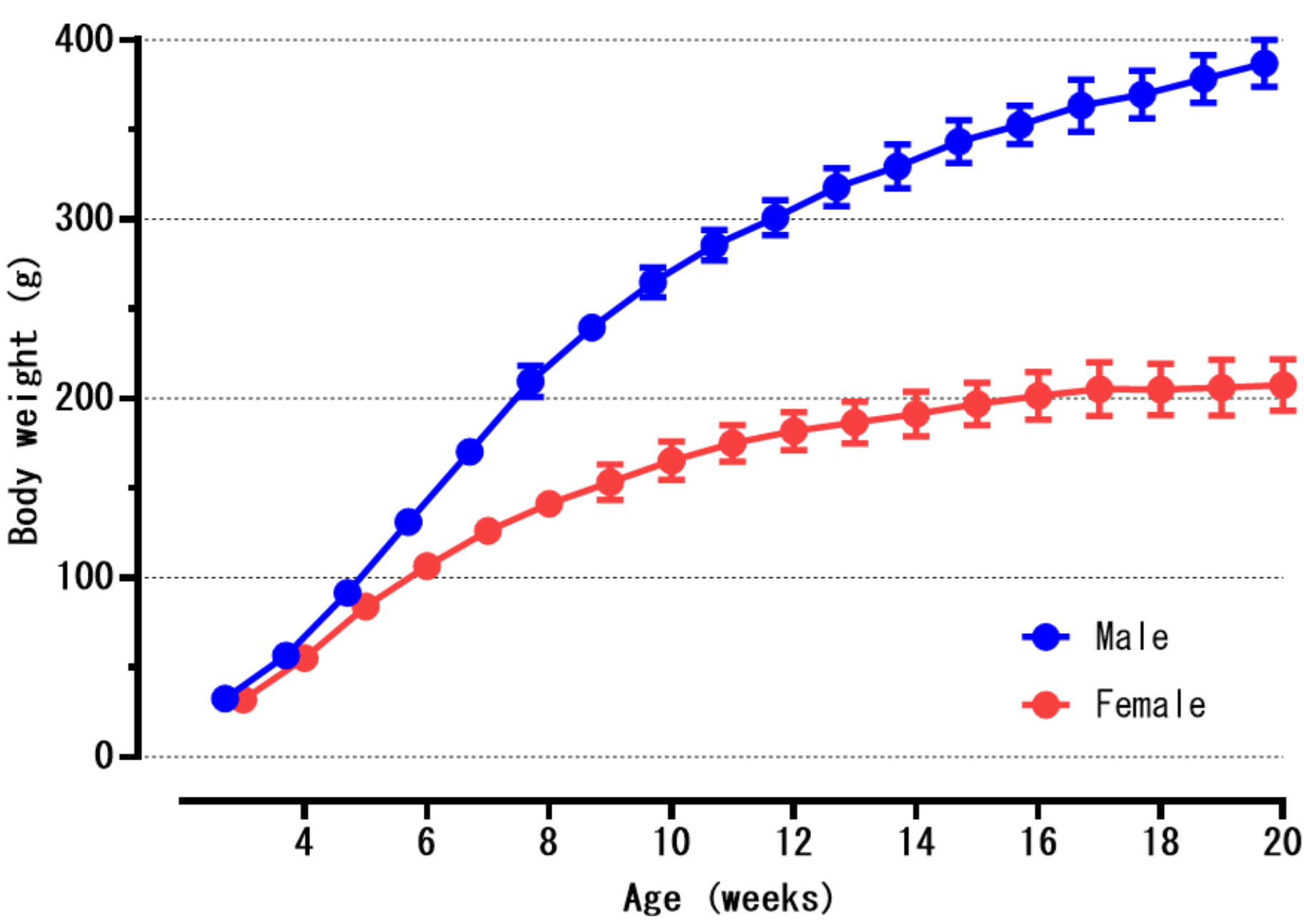
來源

1968年自東京大學醫科學研究所引進



1) Takagi et al. Clin Exp Pharmacol Physiol. 2017. 44:305–312.
2) Takagi et al. J Diabetes Res. 2018. 3671892.

■ 體重曲線



		Age (weeks)																	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Male (n=10)	Mean (g)	32.6	56.6	91.5	131.1	170.2	209.6	239.6	264.7	285.4	300.7	317.8	329.3	343.1	352.6	363.2	369.4	378.2	386.8
	S.D.	1.6	2.0	3.4	4.9	6.7	8.8	6.0	8.3	8.5	9.8	10.6	12.2	12.2	10.8	14.5	13.2	13.3	13.1
Female (n=10)	Mean (g)	31.9	55.2	83.9	106.5	126.1	141.3	153.1	165.3	174.9	181.7	186.5	191.3	197.0	201.5	205.1	205.0	206.0	207.5
	S.D.	1.4	3.1	4.7	5.2	6.2	7.3	10.1	10.9	10.2	10.6	11.6	12.3	11.8	13.3	14.9	14.3	15.4	14.3

■血液學検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=9	20 weeks n=10
WBC	× 10 ² /μL	65.8 ± 16.0	53.9 ± 7.7	30.9 ± 5.1	27.4 ± 4.1
RBC	× 10 ⁴ /μL	853.5 ± 18.6	953.4 ± 12.2	822.2 ± 15.7	824.5 ± 12.9
HGB	g/dL	15.0 ± 0.4	15.1 ± 0.3	14.7 ± 0.2	14.4 ± 0.3
HCT	%	47.6 ± 1.5	47.6 ± 0.6	44.8 ± 0.9	44.6 ± 0.7
MCV	fL	55.7 ± 1.4	49.9 ± 0.4	54.5 ± 0.5	54.0 ± 0.3
MCH	pg	17.6 ± 0.2	15.8 ± 0.2	17.9 ± 0.2	17.4 ± 0.1
MCHC	g/dL	31.6 ± 0.5	31.7 ± 0.3	32.8 ± 0.3	32.3 ± 0.2
PLT	× 10 ⁴ /μL	68.0 ± 6.1	61.4 ± 3.3	68.4 ± 6.5	68.6 ± 4.3

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■血液生化学検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=10
AST	U/L	82.6 ± 4.7	95.5 ± 16.7	79.5 ± 8.4	97.2 ± 26.6
ALT	U/L	43.6 ± 3.5	47.9 ± 8.3	34.7 ± 2.5	50.8 ± 15.7
ALP	U/L	264.6 ± 24.4	125.2 ± 19.0	169.0 ± 21.3	88.1 ± 17.1
ALB	g/dL	4.6 ± 0.1	4.6 ± 0.1	4.9 ± 0.2	5.0 ± 0.4
TP	g/dL	6.0 ± 0.2	6.4 ± 0.1	6.3 ± 0.4	6.8 ± 0.4
A/G		3.1 ± 0.2	2.5 ± 0.2	3.4 ± 0.3	2.8 ± 0.2
GLU	mg/dL	158.1 ± 19.9	166.6 ± 14.4	123.9 ± 9.2	127.4 ± 12.5
T-BIL	mg/dL	0.02 ± 0.01	0.05 ± 0.01	0.03 ± 0.01	0.08 ± 0.02
T-CHO	mg/dL	54.0 ± 4.6	72.7 ± 8.9	80.8 ± 7.2	112.9 ± 20.6
TG	mg/dL	50.3 ± 21.7	66.6 ± 22.8	28.6 ± 11.4	36.4 ± 13.4
PL	mg/dL	100.7 ± 5.9	124.4 ± 8.4	150.8 ± 13.5	207.9 ± 34.4
Ca	mg/dL	10.5 ± 0.8	10.6 ± 0.3	10.8 ± 0.5	10.8 ± 0.3
IP	mg/dL	7.3 ± 0.9	5.9 ± 0.3	6.6 ± 0.3	5.5 ± 0.5
BUN	mg/dL	16.4 ± 1.9	15.8 ± 1.6	15.3 ± 1.5	16.9 ± 1.8
CRE	mg/dL	0.30 ± 0.02	0.27 ± 0.02	0.27 ± 0.01	0.30 ± 0.03
Na	mEq/L	145.3 ± 1.9	143.5 ± 1.7	145.1 ± 1.6	142.5 ± 1.8
K	mEq/L	4.0 ± 0.9	4.0 ± 0.2	4.1 ± 0.3	3.7 ± 0.2
Cl	mEq/L	102.4 ± 0.9	101.8 ± 1.5	104.7 ± 1.7	102.2 ± 1.8

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■ 器官重量

Items	Unit	Male		Female	
		10 weeks n=9	20 weeks n=9	10 weeks n=10	20 weeks n=10
Body weight	g	241.4 ± 12.8	372.4 ± 14.4	148.7 ± 9.0	198.8 ± 14.4
Absolute organ weight					
Brain	g	1.773 ± 0.064	1.959 ± 0.080	1.695 ± 0.058	1.751 ± 0.056
Heart	g	0.729 ± 0.057	0.923 ± 0.031	0.496 ± 0.029	0.551 ± 0.027
Lung	g	0.892 ± 0.049	1.093 ± 0.066	0.660 ± 0.066	0.761 ± 0.046
Kidney (L)	g	0.820 ± 0.081	1.071 ± 0.061	0.502 ± 0.037	0.597 ± 0.036
(R)	g	0.785 ± 0.066	1.019 ± 0.044	0.497 ± 0.037	0.572 ± 0.031
Spleen	g	0.572 ± 0.047	0.691 ± 0.061	0.360 ± 0.023	0.418 ± 0.031
Liver	g	7.055 ± 0.633	9.096 ± 0.471	4.165 ± 0.229	4.699 ± 0.353
Testis (L)	g	1.276 ± 0.076	1.436 ± 0.304		
(R)	g	1.230 ± 0.074	1.379 ± 0.355		
Ovary (L)	mg			30.4 ± 5.3	31.2 ± 6.7
(R)	mg			30.8 ± 4.4	29.8 ± 6.7
Uterus	g			0.288 ± 0.076	0.498 ± 0.136
Adrenal (L)	mg	17.8 ± 1.2	22.7 ± 3.1	20.8 ± 1.9	24.1 ± 3.6
(R)	mg	15.9 ± 2.5	19.9 ± 4.6	18.9 ± 1.8	23.2 ± 3.0
Thymus	g	0.323 ± 0.048	0.214 ± 0.034	0.277 ± 0.034	0.195 ± 0.018
Pituitary	mg	6.2 ± 1.1	7.1 ± 1.2	8.6 ± 1.7	8.8 ± 2.2
Thyroid gland	mg	11.2 ± 1.9	15.9 ± 5.2	8.7 ± 1.9	11.7 ± 4.0
Salivary gland (L)	g	0.207 ± 0.006	0.285 ± 0.023	0.136 ± 0.010	0.169 ± 0.014
(R)	g	0.208 ± 0.012	0.278 ± 0.029	0.139 ± 0.010	0.167 ± 0.017
Relative organ weight					
Brain	g%	0.74 ± 0.03	0.53 ± 0.03	1.14 ± 0.04	0.88 ± 0.05
Heart	g%	0.30 ± 0.01	0.25 ± 0.01	0.33 ± 0.02	0.28 ± 0.01
Lung	g%	0.37 ± 0.01	0.29 ± 0.01	0.44 ± 0.03	0.38 ± 0.01
Kidney (L)	g%	0.34 ± 0.02	0.29 ± 0.02	0.34 ± 0.02	0.30 ± 0.02
(R)	g%	0.33 ± 0.02	0.27 ± 0.02	0.33 ± 0.01	0.29 ± 0.01
Spleen	g%	0.24 ± 0.01	0.19 ± 0.01	0.24 ± 0.01	0.21 ± 0.01
Liver	g%	2.92 ± 0.14	2.44 ± 0.09	2.80 ± 0.06	2.36 ± 0.07
Testis (L)	g%	0.53 ± 0.04	0.39 ± 0.08		
(R)	g%	0.51 ± 0.04	0.37 ± 0.09		
Ovary (L)	mg%			20.49 ± 3.76	15.65 ± 2.87
(R)	mg%			20.71 ± 2.78	14.99 ± 3.31
Uterus	g%			0.19 ± 0.05	0.26 ± 0.09
Adrenal (L)	mg%	7.40 ± 0.59	6.10 ± 0.86	14.00 ± 1.27	12.08 ± 1.45
(R)	mg%	6.61 ± 1.16	5.34 ± 1.24	12.72 ± 1.06	11.67 ± 1.36
Thymus	g%	0.13 ± 0.02	0.06 ± 0.01	0.19 ± 0.02	0.10 ± 0.01
Pituitary	mg%	2.59 ± 0.54	1.92 ± 0.36	5.79 ± 1.14	4.38 ± 0.99
Thyroid gland	mg%	4.64 ± 0.84	4.25 ± 1.33	5.84 ± 1.31	5.86 ± 1.92
Salivary gland (L)	g%	0.09 ± 0.00	0.08 ± 0.01	0.09 ± 0.01	0.09 ± 0.00
(R)	g%	0.09 ± 0.01	0.07 ± 0.01	0.09 ± 0.00	0.08 ± 0.00

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

品系： Slc:Wistar/ST

- 特色
- 性情溫馴, 易於操作
 - 比較的大型で発育良好
 - 繁殖能力高

- 用途
- 用於各類研究
- 安全性試驗
 - 藥效與藥理試驗

毛色

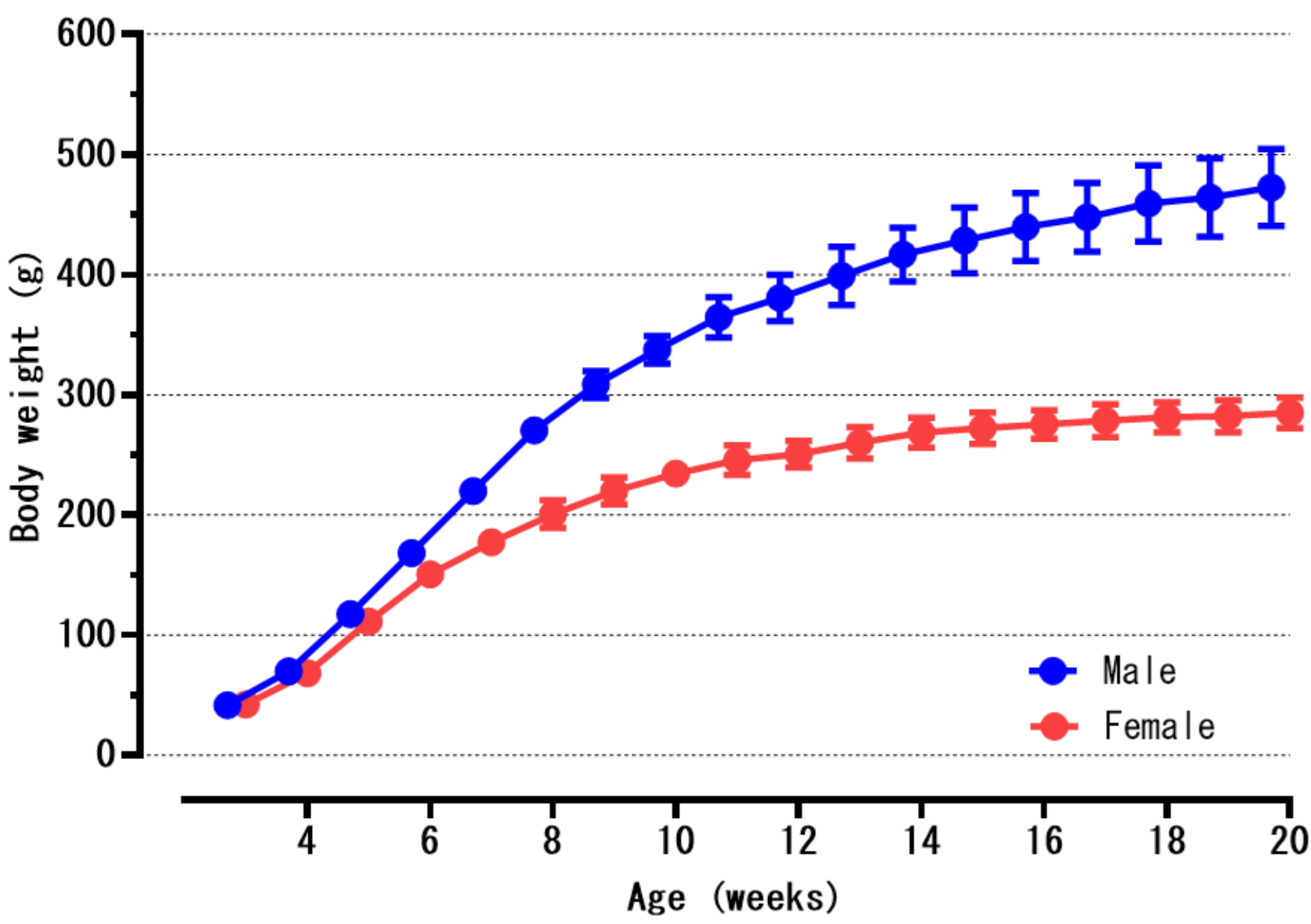
白化型 (Albino)

來源

1974年自東京大學醫科學研究所引進



體重曲線



		Age (weeks)																	
Male (n=10)	Mean (g)	41.7	70.0	117.4	168.4	219.9	270.6	308.5	337.4	364.4	380.6	399.0	416.8	428.6	439.8	447.7	459.1	464.4	472.5
	S.D.	1.2	2.4	4.5	6.3	8.7	10.3	11.3	11.6	16.7	19.4	24.2	22.4	27.4	28.4	28.8	31.7	32.7	32.2
Female (n=10)	Mean (g)	42.3	68.6	111.1	150.6	177.5	200.6	219.9	234.6	245.6	250.8	260.3	268.6	272.5	275.4	278.6	281.5	282.2	285.3
	S.D.	1.4	3.1	5.4	7.0	9.5	11.6	11.3	11.1	12.6	11.3	13.0	12.6	13.2	11.9	13.6	12.5	13.4	12.8

■血液學検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=10
WBC	× 10 ² /μL	54.9 ± 7.7	59.5 ± 14.3	52.2 ± 11.5	53.6 ± 11.7
RBC	× 10 ⁴ /μL	820.5 ± 23.7	891.0 ± 24.5	818.0 ± 20.1	860.3 ± 31.2
HGB	g/dL	16.0 ± 0.3	15.7 ± 0.4	15.7 ± 0.3	15.8 ± 0.5
HCT	%	47.8 ± 1.7	47.5 ± 2.0	47.2 ± 1.3	47.7 ± 2.4
MCV	fL	58.2 ± 1.1	53.4 ± 2.0	57.7 ± 0.7	55.5 ± 1.9
MCH	pg	19.5 ± 0.3	17.6 ± 0.5	19.2 ± 0.2	18.4 ± 0.4
MCHC	g/dL	33.4 ± 0.6	33.0 ± 0.8	33.2 ± 0.4	33.1 ± 0.9
PLT	× 10 ⁴ /μL	81.0 ± 6.5	72.6 ± 6.2	89.7 ± 8.2	72.9 ± 20.6

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■血液生化学検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=10
AST	U/L	114.6 ± 13.6	113.1 ± 12.3	95.1 ± 15.2	85.4 ± 2.8
ALT	U/L	59.6 ± 7.9	61.3 ± 13.6	48.0 ± 6.4	47.7 ± 4.8
ALP	U/L	271.6 ± 72.1	106.2 ± 10.3	160.1 ± 23.8	76.1 ± 14.6
ALB	g/dL	4.3 ± 0.2	4.0 ± 0.1	4.2 ± 0.2	4.4 ± 0.2
TP	g/dL	5.7 ± 0.3	5.8 ± 0.3	5.5 ± 0.2	5.9 ± 0.2
A/G		3.2 ± 0.4	2.4 ± 0.3	3.4 ± 0.4	2.9 ± 0.3
GLU	mg/dL	109.3 ± 8.4	138.7 ± 39.7	113.0 ± 8.4	127.0 ± 27.6
T-BIL	mg/dL	0.04 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.08 ± 0.01
T-CHO	mg/dL	67.3 ± 10.9	62.8 ± 11.3	75.8 ± 9.6	81.6 ± 10.6
TG	mg/dL	36.8 ± 7.4	42.9 ± 14.6	28.7 ± 7.7	32.8 ± 5.7
PL	mg/dL	109.5 ± 14.6	96.8 ± 14.6	125.1 ± 14.2	142.9 ± 12.7
Ca	mg/dL	10.3 ± 0.3	10.1 ± 0.4	10.4 ± 0.3	10.6 ± 0.3
IP	mg/dL	7.4 ± 0.4	6.9 ± 0.4	7.3 ± 0.4	6.2 ± 1.3
BUN	mg/dL	12.5 ± 1.1	11.5 ± 0.7	12.5 ± 1.7	13.5 ± 1.0
CRE	mg/dL	0.21 ± 0.02	0.24 ± 0.02	0.23 ± 0.02	0.29 ± 0.02
Na	mEq/L	146.2 ± 0.7	146.4 ± 1.6	145.3 ± 0.8	144.8 ± 1.1
K	mEq/L	4.4 ± 0.2	4.6 ± 0.2	4.6 ± 0.2	4.9 ± 1.6
Cl	mEq/L	101.8 ± 1.2	104.3 ± 1.7	104.1 ± 0.8	104.0 ± 1.3

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■器官重量

Items	Unit	Male		Female	
		10 weeks	20 weeks	10 weeks	20 weeks
		n=10	n=10	n=10	n=10
Body weight	g	315.3 ± 18.4	450.4 ± 31.8	216.7 ± 11.3	269.2 ± 11.6
Absolute organ weight					
Brain	g	2.068 ± 0.048	2.176 ± 0.082	1.896 ± 0.062	2.023 ± 0.043
Heart	g	1.022 ± 0.087	1.257 ± 0.127	0.756 ± 0.078	0.820 ± 0.049
Lung	g	1.145 ± 0.041	1.321 ± 0.093	0.937 ± 0.064	1.038 ± 0.058
Kidney (L)	g	1.114 ± 0.075	1.274 ± 0.110	0.844 ± 0.074	0.914 ± 0.047
(R)	g	1.086 ± 0.071	1.280 ± 0.090	0.830 ± 0.056	0.929 ± 0.048
Spleen	g	0.480 ± 0.060	0.583 ± 0.067	0.375 ± 0.044	0.429 ± 0.048
Liver	g	8.765 ± 0.699	11.026 ± 1.379	6.324 ± 0.498	6.396 ± 0.522
Testis (L)	g	1.536 ± 0.046	1.655 ± 0.101		
(R)	g	1.503 ± 0.066	1.599 ± 0.129		
Ovary (L)	mg			41.3 ± 5.4	42.9 ± 5.9
(R)	mg			39.3 ± 11.4	41.6 ± 13.1
Uterus	g			0.447 ± 0.145	0.460 ± 0.129
Adrenal (L)	mg	35.5 ± 5.0	29.9 ± 4.3	41.9 ± 5.9	41.1 ± 4.3
(R)	mg	31.9 ± 3.8	28.4 ± 3.2	35.7 ± 4.8	35.5 ± 4.3
Thymus	g	0.639 ± 0.075	0.473 ± 0.086	0.521 ± 0.047	0.402 ± 0.062
Pituitary	mg	9.9 ± 1.0	10.8 ± 1.3	10.9 ± 2.3	13.5 ± 1.9
Thyroid gland	mg	20.2 ± 7.3	32.8 ± 9.2	18.6 ± 7.9	25.1 ± 7.7
Salivary gland (L)	g	0.286 ± 0.015	0.361 ± 0.038	0.200 ± 0.020	0.234 ± 0.015
(R)	g	0.288 ± 0.021	0.356 ± 0.032	0.204 ± 0.017	0.233 ± 0.020
Relative organ weight					
Brain	g%	0.66 ± 0.04	0.48 ± 0.03	0.88 ± 0.03	0.75 ± 0.03
Heart	g%	0.32 ± 0.02	0.28 ± 0.02	0.35 ± 0.02	0.30 ± 0.01
Lung	g%	0.36 ± 0.02	0.29 ± 0.01	0.43 ± 0.01	0.39 ± 0.02
Kidney (L)	g%	0.35 ± 0.02	0.28 ± 0.02	0.39 ± 0.02	0.34 ± 0.02
(R)	g%	0.34 ± 0.02	0.28 ± 0.02	0.38 ± 0.02	0.35 ± 0.02
Spleen	g%	0.15 ± 0.02	0.13 ± 0.01	0.17 ± 0.01	0.16 ± 0.02
Liver	g%	2.78 ± 0.12	2.44 ± 0.17	2.91 ± 0.11	2.38 ± 0.27
Testis (L)	g%	0.49 ± 0.02	0.37 ± 0.04		
(R)	g%	0.48 ± 0.02	0.36 ± 0.04		
Ovary (L)	mg%			19.10 ± 2.56	15.91 ± 1.85
(R)	mg%			18.17 ± 5.43	15.42 ± 4.62
Uterus	g%			0.21 ± 0.08	0.17 ± 0.05
Adrenal (L)	mg%	11.27 ± 1.41	6.62 ± 0.64	19.31 ± 2.19	15.26 ± 1.47
(R)	mg%	10.14 ± 1.29	6.31 ± 0.45	16.51 ± 2.15	13.19 ± 1.48
Thymus	g%	0.20 ± 0.03	0.10 ± 0.02	0.24 ± 0.02	0.15 ± 0.02
Pituitary	mg%	3.14 ± 0.30	2.40 ± 0.28	5.03 ± 0.96	5.01 ± 0.56
Thyroid gland	mg%	6.40 ± 2.30	7.33 ± 2.20	8.54 ± 3.50	9.28 ± 2.76
Salivary gland (L)	g%	0.09 ± 0.01	0.08 ± 0.01	0.09 ± 0.01	0.09 ± 0.01
(R)	g%	0.09 ± 0.01	0.08 ± 0.01	0.09 ± 0.01	0.09 ± 0.01

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

品系： RccHan®:WIST

特色
歐洲使用較多，在全球具有豐富使用實績

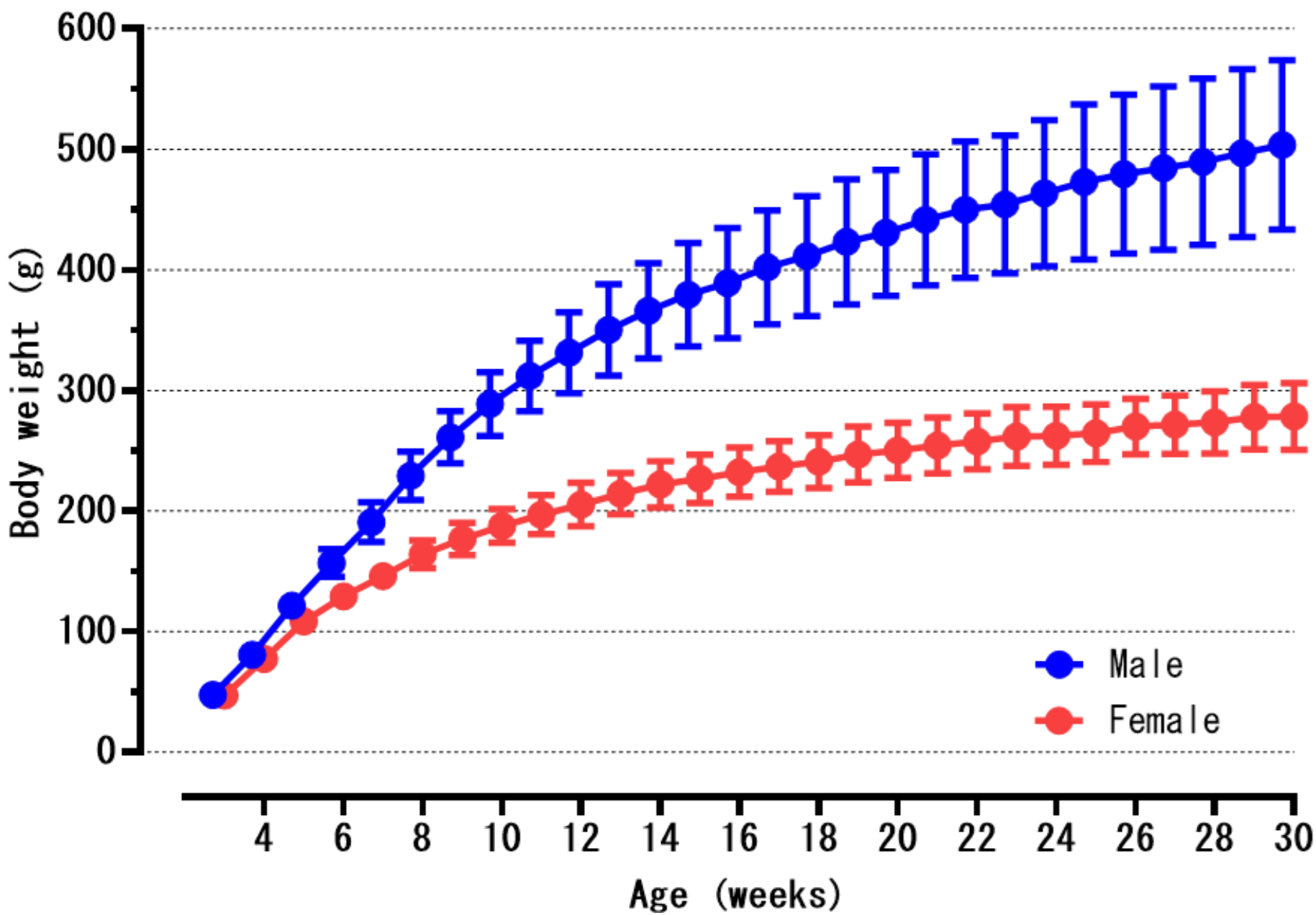
用途
可作為包含長期飼育試驗之一般毒性模型

毛色
白化型(Albino)

來源
1989年自德國 Zentralinstitut für Versuchstierzucht 引進。



■ 體重曲線



		Age (weeks)														
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Male	Mean (g)	47.6	81.0	121.6	156.8	190.8	229.3	261.1	289.0	312.2	331.5	350.4	366.1	379.4	389.0	
	S.D.	1.9	3.4	7.0	11.5	16.5	20.3	22.0	26.5	29.4	33.6	37.9	39.5	43.0	45.6	
Female	Mean (g)	47.1	77.4	108.6	129.2	146.0	164.0	176.7	187.5	197.0	205.4	214.5	222.2	226.7	232.3	
	S.D.	1.4	2.8	3.4	6.4	9.1	11.5	13.3	14.1	16.3	17.9	17.2	19.2	20.1	20.5	

		Age (weeks)													
		17	18	19	20	21	22	23	24	25	26	27	28	29	30
Male	Mean (g)	402.3	411.5	423.2	430.7	441.6	449.9	454.3	463.5	472.9	479.5	484.4	489.6	496.9	503.5
	S.D.	47.2	49.8	51.7	52.1	54.5	56.5	57.1	60.7	64.4	66.0	67.8	68.8	69.7	70.3
Female	Mean (g)	237.1	241.2	247.0	250.5	254.4	257.9	261.9	262.6	264.7	270.2	271.8	273.7	278.0	278.5
	S.D.	21.3	22.3	23.5	23.0	23.3	23.5	24.6	24.3	24.0	23.1	24.2	25.7	26.6	27.7

■血液學檢查

Items	Unit	Male		Female	
		10 weeks n=9	30 weeks n=10	10 weeks n=10	30 weeks n=10
WBC	× 10 ² /μL	41.9 ± 12.2	30.8 ± 6.7	20.1 ± 4.7	15.7 ± 3.8
RBC	× 10 ⁴ /μL	786.0 ± 24.7	856.1 ± 53.7	751.1 ± 29.2	775.6 ± 21.9
HGB	g/dL	14.6 ± 0.4	14.9 ± 0.4	13.9 ± 0.3	14.4 ± 0.2
HCT	%	44.1 ± 1.2	45.9 ± 2.0	42.5 ± 0.7	44.2 ± 0.8
MCV	fL	56.2 ± 0.6	53.6 ± 1.7	56.6 ± 1.7	57.0 ± 1.1
MCH	pg	18.5 ± 0.3	17.5 ± 0.9	18.5 ± 0.6	18.5 ± 0.4
MCHC	g/dL	33.0 ± 0.4	32.6 ± 0.9	32.6 ± 0.4	32.5 ± 0.4
PLT	× 10 ⁴ /μL	87.1 ± 10.8	78.2 ± 3.3	81.9 ± 7.8	79.2 ± 6.0

Values are mean ± S.D.
飼料:2018S (Inotiv, Inc.)

■血液生化學檢查

Items	Unit	Male		Female	
		10 weeks n=9	30 weeks n=10	10 weeks n=10	30 weeks n=10
AST	U/L	131.8 ± 23.5	87.1 ± 9.8	124.6 ± 24.6	136.8 ± 40.7
ALT	U/L	46.0 ± 9.5	41.6 ± 7.1	41.6 ± 9.5	58.6 ± 29.1
ALP	U/L	122.6 ± 14.6	80.6 ± 17.9	61.1 ± 14.4	23.7 ± 7.8
ALB	g/dL	4.6 ± 0.1	4.7 ± 0.1	5.2 ± 0.2	5.7 ± 0.3
TP	g/dL	6.2 ± 0.2	6.7 ± 0.2	6.4 ± 0.2	7.2 ± 0.3
A/G		3.1 ± 0.3	2.4 ± 0.2	4.2 ± 0.5	4.1 ± 0.5
GLU	mg/dL	106.9 ± 21.2	148.4 ± 44.7	79.2 ± 10.6	115.0 ± 21.8
T-BIL	mg/dL	0.08 ± 0.01	0.08 ± 0.02	0.08 ± 0.01	0.12 ± 0.03
T-CHO	mg/dL	71.4 ± 9.4	96.4 ± 9.1	66.6 ± 10.2	83.5 ± 15.9
TG	mg/dL	59.1 ± 24.9	121.2 ± 45.1	24.9 ± 4.4	46.3 ± 10.8
PL	mg/dL	124.9 ± 12.6	156.2 ± 13.3	128.7 ± 17.4	178.2 ± 29.8
Ca	mg/dL	10.3 ± 0.3	10.8 ± 0.3	10.6 ± 0.2	11.2 ± 0.3
IP	mg/dL	7.0 ± 0.5	5.6 ± 0.7	6.5 ± 0.5	4.9 ± 0.4
BUN	mg/dL	19.2 ± 3.5	14.3 ± 1.5	16.6 ± 1.6	15.9 ± 1.7
CRE	mg/dL	0.31 ± 0.03	0.30 ± 0.03	0.31 ± 0.02	0.36 ± 0.03
Na	mEq/L	148.4 ± 1.3	150.1 ± 1.0	149.1 ± 1.0	149.6 ± 0.8
K	mEq/L	4.4 ± 0.3	4.5 ± 0.2	4.2 ± 0.3	3.7 ± 0.2
Cl	mEq/L	103.5 ± 1.3	106.9 ± 1.9	107.2 ± 1.6	107.1 ± 1.7

Values are mean ± S.D.
飼料:2018S (Inotiv, Inc.)

■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	264.2 ± 22.2	488.7 ± 68.2	180.1 ± 14.8	267.2 ± 27.5
Absolute organ weight					
Brain	g	1.834 ± 0.052	2.034 ± 0.083	1.749 ± 0.063	1.862 ± 0.075
Heart	g	0.655 ± 0.062	0.964 ± 0.102	0.505 ± 0.049	0.644 ± 0.059
Lung	g	0.912 ± 0.099	1.198 ± 0.101	0.749 ± 0.056	0.881 ± 0.054
Kidney (L)	g	0.783 ± 0.109	1.044 ± 0.124	0.557 ± 0.057	0.674 ± 0.063
(R)	g	0.804 ± 0.123	1.055 ± 0.119	0.558 ± 0.052	0.691 ± 0.052
Spleen	g	0.497 ± 0.044	0.650 ± 0.065	0.358 ± 0.041	0.471 ± 0.039
Liver	g	7.401 ± 1.313	10.775 ± 1.630	4.938 ± 0.486	6.099 ± 0.638
Testis (L)	g	1.532 ± 0.072	1.905 ± 0.164		
(R)	g	1.537 ± 0.074	1.881 ± 0.151		
Ovary (L)	mg			35.5 ± 9.2	34.3 ± 12.3
(R)	mg			36.8 ± 12.0	32.1 ± 14.5
Uterus	g			0.355 ± 0.084	0.604 ± 0.149
Adrenal (L)	mg	27.6 ± 5.6	24.7 ± 2.6	30.7 ± 2.6	34.0 ± 4.4
(R)	mg	27.3 ± 4.4	24.2 ± 2.4	29.6 ± 3.0	30.7 ± 4.6
Thymus	g	0.433 ± 0.069	0.248 ± 0.048	0.439 ± 0.062	0.207 ± 0.029
Pituitary	mg	6.8 ± 1.2	8.5 ± 1.3	9.5 ± 1.2	13.9 ± 4.7
Thyroid gland	mg	15.4 ± 5.4	18.9 ± 5.5	12.9 ± 3.1	16.2 ± 4.3
Salivary gland (L)	g	0.224 ± 0.015	0.322 ± 0.047	0.172 ± 0.011	0.240 ± 0.033
(R)	g	0.218 ± 0.016	0.318 ± 0.047	0.170 ± 0.010	0.241 ± 0.038
Relative organ weight					
Brain	g%	0.70 ± 0.06	0.42 ± 0.06	0.97 ± 0.05	0.70 ± 0.09
Heart	g%	0.25 ± 0.01	0.20 ± 0.02	0.28 ± 0.01	0.24 ± 0.02
Lung	g%	0.34 ± 0.01	0.25 ± 0.03	0.42 ± 0.02	0.33 ± 0.02
Kidney (L)	g%	0.30 ± 0.02	0.22 ± 0.02	0.31 ± 0.02	0.25 ± 0.02
(R)	g%	0.30 ± 0.03	0.22 ± 0.02	0.31 ± 0.01	0.26 ± 0.02
Spleen	g%	0.19 ± 0.02	0.13 ± 0.01	0.20 ± 0.02	0.18 ± 0.01
Liver	g%	2.79 ± 0.29	2.21 ± 0.15	2.74 ± 0.10	2.29 ± 0.21
Testis (L)	g%	0.58 ± 0.04	0.40 ± 0.07		
(R)	g%	0.58 ± 0.04	0.39 ± 0.06		
Ovary (L)	mg%			19.69 ± 5.02	12.74 ± 4.04
(R)	mg%			20.71 ± 7.17	11.86 ± 4.78
Uterus	g%			0.20 ± 0.04	0.23 ± 0.07
Adrenal (L)	mg%	10.46 ± 1.90	5.11 ± 0.60	17.06 ± 1.28	12.78 ± 1.56
(R)	mg%	10.32 ± 1.43	5.00 ± 0.46	16.49 ± 1.66	11.54 ± 1.63
Thymus	g%	0.17 ± 0.03	0.05 ± 0.01	0.24 ± 0.03	0.08 ± 0.01
Pituitary	mg%	2.58 ± 0.46	1.76 ± 0.25	5.30 ± 0.56	5.26 ± 1.75
Thyroid gland	mg%	5.81 ± 1.94	4.02 ± 1.56	7.25 ± 2.06	6.16 ± 1.84
Salivary gland (L)	g%	0.09 ± 0.00	0.07 ± 0.01	0.10 ± 0.01	0.09 ± 0.01
(R)	g%	0.08 ± 0.00	0.07 ± 0.01	0.09 ± 0.01	0.09 ± 0.01

Values are mean ± S.D.
飼料:2018S(Inotiv, Inc.)

品系:BN/SsNSIc

特色

- 具有高 IgE 抗體產生能力
- 對多種過敏原及化學物質具有高氣道反應性

用途

- 移植免疫研究
- 免疫與過敏研究

毛色

棕色 (a, b, h)

遺傳型態

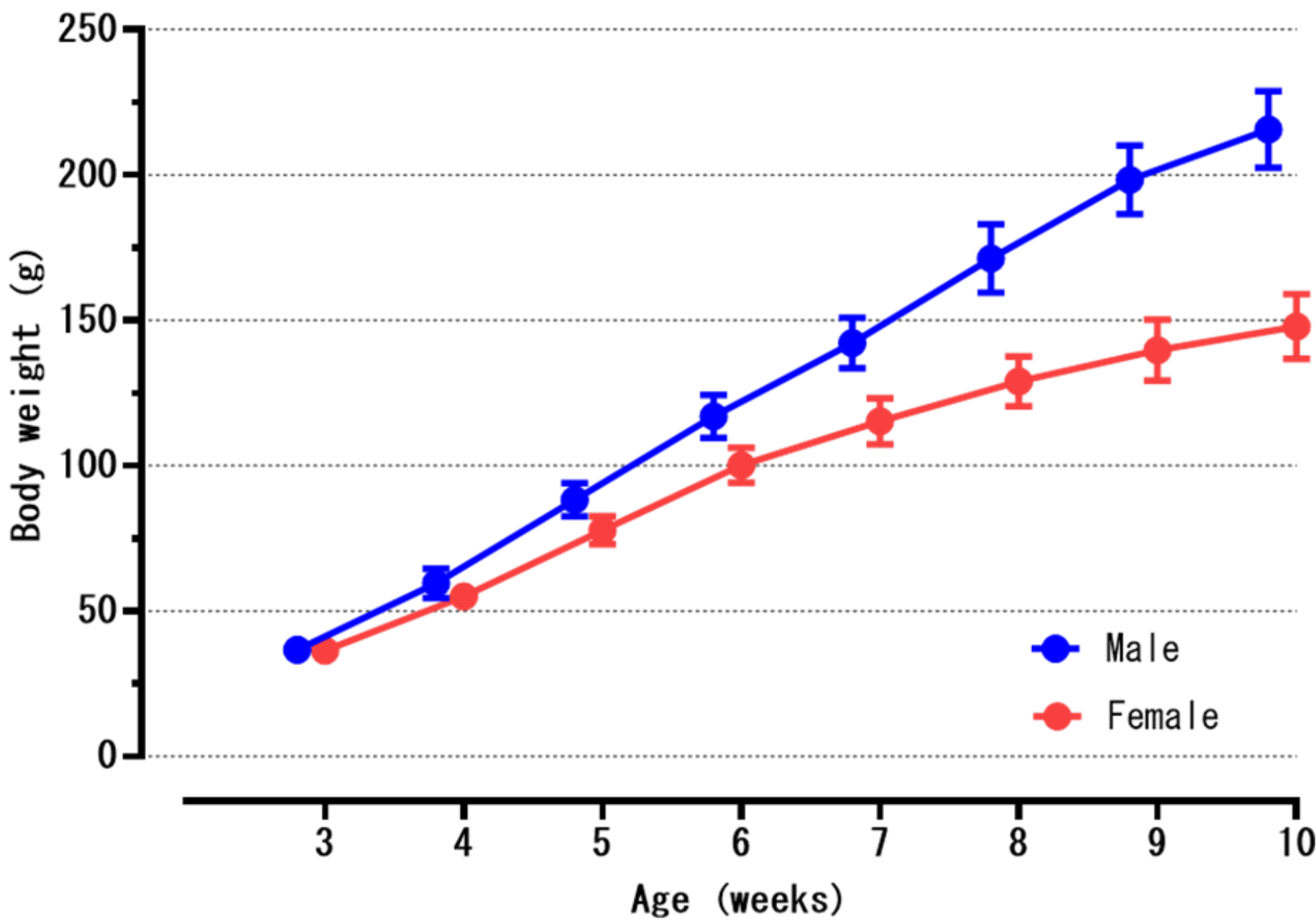
RT1.A:n

來源

1994年自美國 NIH 引進



■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=10)	Mean (g)	36.7	59.6	88.3	117.0	142.2	171.3	198.3	215.7
	S.D.	4.0	5.1	5.7	7.4	8.7	11.8	11.8	13.2
Female (n=10)	Mean (g)	36.4	55.0	77.8	100.2	115.4	129.0	139.8	147.9
	S.D.	2.2	3.2	4.8	6.1	8.0	8.5	10.6	11.1

■ 血液學検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	36.9 ± 5.6	35.0 ± 10.5
RBC	× 10 ⁴ /μL	785.9 ± 18.9	769.3 ± 18.5
HGB	g/dL	13.8 ± 0.3	13.4 ± 0.3
HCT	%	44.9 ± 1.0	43.0 ± 0.8
MCV	fL	57.1 ± 0.8	55.9 ± 0.4
MCH	pg	17.5 ± 0.3	17.4 ± 0.2
MCHC	g/dL	30.7 ± 0.6	31.1 ± 0.4
PLT	× 10 ⁴ /μL	92.6 ± 6.8	91.8 ± 10.6

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■ 血液生化学検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	92.9 ± 9.4	93.5 ± 8.3
ALT	U/L	31.9 ± 2.5	25.6 ± 2.8
ALP	U/L	111.9 ± 8.7	69.2 ± 5.3
ALB	g/dL	4.1 ± 0.1	3.8 ± 0.2
TP	g/dL	5.6 ± 0.1	5.1 ± 0.2
A/G		2.8 ± 0.2	3.1 ± 0.4
GLU	mg/dL	104.2 ± 11.5	96.4 ± 9.1
T-BIL	mg/dL	0.04 ± 0.01	0.04 ± 0.01
T-CHO	mg/dL	58.6 ± 2.9	54.1 ± 3.4
TG	mg/dL	43.4 ± 11.1	44.3 ± 10.4
PL	mg/dL	89.9 ± 3.8	87.4 ± 5.3
Ca	mg/dL	9.5 ± 0.3	9.2 ± 0.2
IP	mg/dL	5.9 ± 0.5	5.8 ± 0.3
BUN	mg/dL	18.5 ± 1.2	19.3 ± 1.6
CRE	mg/dL	0.27 ± 0.01	0.33 ± 0.02
Na	mEq/L	143.5 ± 0.5	141.5 ± 1.2
K	mEq/L	4.4 ± 0.2	4.4 ± 0.1
Cl	mEq/L	103.4 ± 0.6	104.4 ± 0.7

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

■ 器官重量

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
Body weight	g	203.3 ± 11.8	140.8 ± 10.8
Absolute organ weight			
Brain	g	1.832 ± 0.035	1.715 ± 0.038
Heart	g	0.630 ± 0.034	0.444 ± 0.038
Lung	g	0.982 ± 0.092	1.078 ± 0.191
Kidney (L)	g	0.648 ± 0.043	0.464 ± 0.042
(R)	g	0.648 ± 0.032	0.452 ± 0.046
Spleen	g	0.380 ± 0.033	0.292 ± 0.024
Liver	g	5.088 ± 0.273	3.650 ± 0.364
Testis (L)	g	1.232 ± 0.073	
(R)	g	1.214 ± 0.075	
Ovary (L)	mg		17.7 ± 3.4
(R)	mg		15.9 ± 4.0
Uterus	g		0.455 ± 0.181
Adrenal (L)	mg	20.4 ± 1.9	23.7 ± 2.7
(R)	mg	17.1 ± 3.4	21.7 ± 2.4
Thymus	g	0.367 ± 0.040	0.299 ± 0.055
Pituitary	mg	4.9 ± 1.1	4.7 ± 1.0
Thyroid gland	mg	8.7 ± 3.3	6.8 ± 1.9
Salivary gland (L)	g	0.199 ± 0.014	0.157 ± 0.016
(R)	g	0.203 ± 0.018	0.158 ± 0.008
Relative organ weight			
Brain	g%	0.90 ± 0.05	1.22 ± 0.09
Heart	g%	0.31 ± 0.02	0.32 ± 0.02
Lung	g%	0.48 ± 0.06	0.77 ± 0.16
Kidney (L)	g%	0.32 ± 0.01	0.33 ± 0.02
(R)	g%	0.32 ± 0.01	0.32 ± 0.02
Spleen	g%	0.19 ± 0.01	0.21 ± 0.02
Liver	g%	2.50 ± 0.06	2.59 ± 0.19
Testis (L)	g%	0.61 ± 0.02	
(R)	g%	0.60 ± 0.02	
Ovary (L)	mg%		12.66 ± 2.60
(R)	mg%		11.34 ± 2.84
Uterus	g%		0.32 ± 0.12
Adrenal (L)	mg%	10.03 ± 0.81	16.79 ± 1.41
(R)	mg%	8.39 ± 1.60	15.44 ± 1.68
Thymus	g%	0.18 ± 0.02	0.21 ± 0.04
Pituitary	mg%	2.42 ± 0.51	3.34 ± 0.71
Thyroid gland	mg%	4.30 ± 1.65	4.91 ± 1.53
Salivary gland (L)	g%	0.10 ± 0.01	0.11 ± 0.01
(R)	g%	0.10 ± 0.01	0.11 ± 0.01

Values are mean ± S.D.
飼料: ラボR-A2(日本農産工業)

品系： F344/NSlc
(Fischer 344)

特色

- 性情溫馴, 易於操作
- 體型較小且生長發育良好

用途

廣泛應用於各類一般研究

- 安全性試驗(致癌性試驗)
- 毒性評估^{1), 2)}
- 藥效與藥理試驗
- 免疫與癌症研究

毛色

白化型(a, c, h)

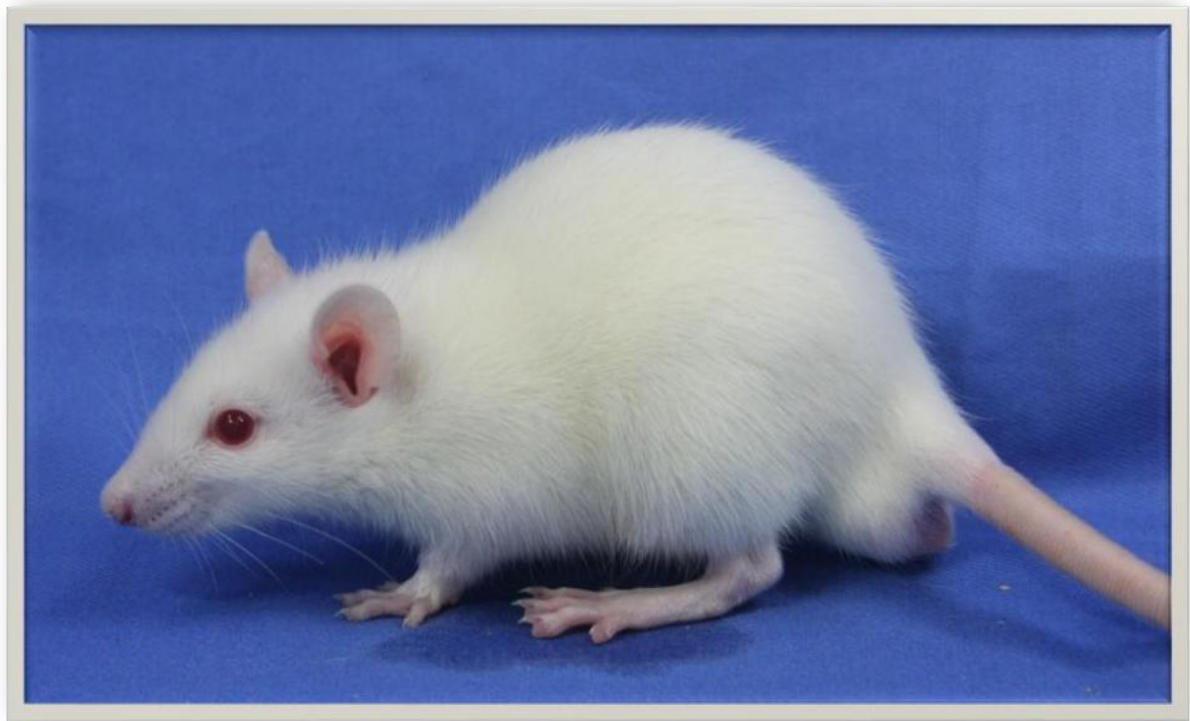
遺傳型態

RT1.A:I

來源

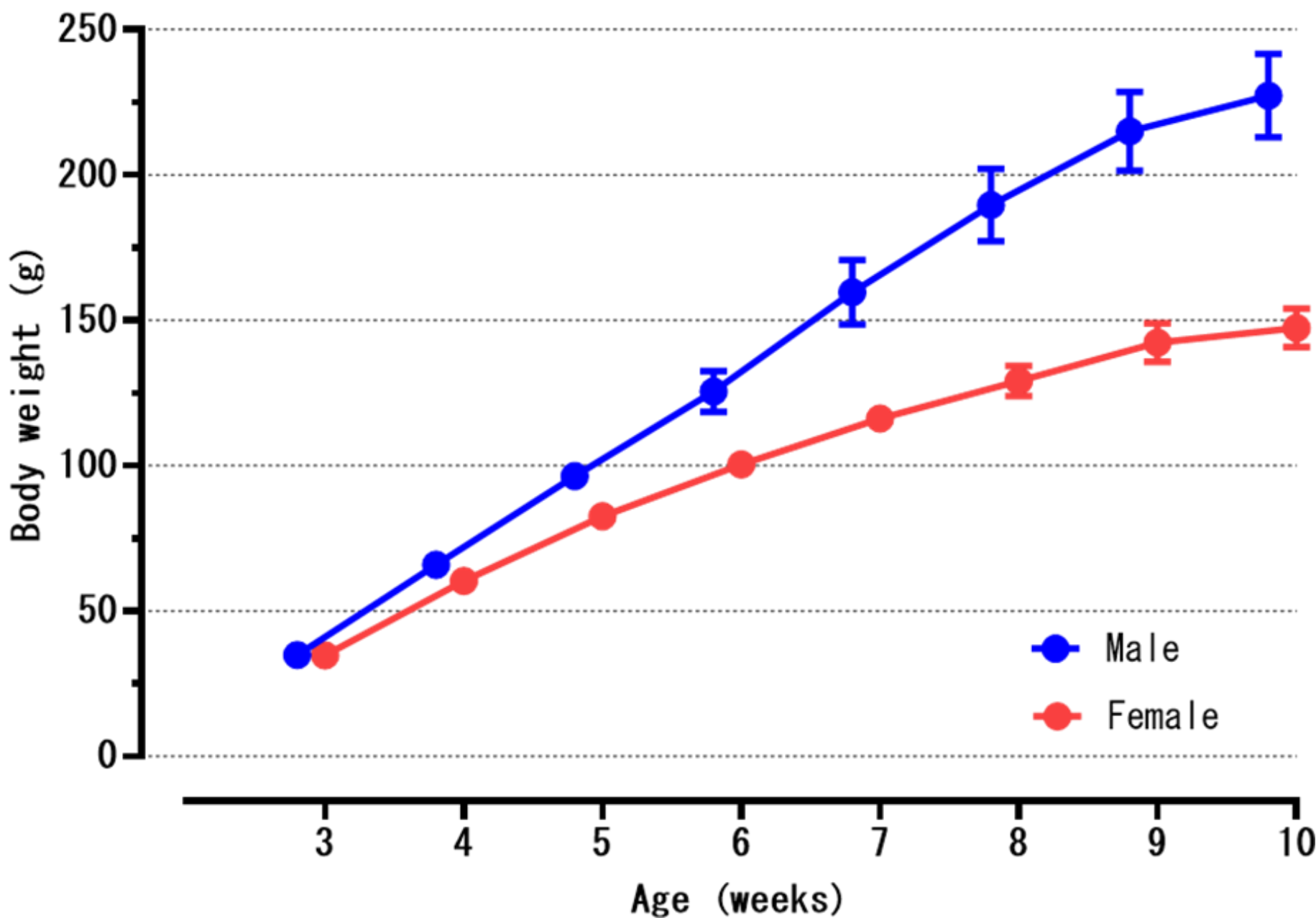
1980年自東京大學醫科學研究所引進

(源自 Curtis 等為癌症研究建立之近交系大鼠)



1) Mizukami et al. Toxicol Sci. 2017. 159:211–223.
2) Ito et al. Toxicol Sci. 2019. 169:122–136.

■ 體重曲線



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=10)	Mean (g)	34.9	65.9	96.5	125.5	159.6	189.7	215.0	227.3
	S.D.	1.6	2.3	3.8	7.0	11.2	12.5	13.6	14.4
Female (n=10)	Mean (g)	34.8	60.4	82.5	100.4	116.2	129.2	142.3	147.4
	S.D.	2.0	3.4	3.6	4.0	4.2	5.3	6.7	6.6

■血液學検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	30.7 ± 4.4	20.8 ± 4.4
RBC	× 10 ⁴ /μL	850.2 ± 17.3	810.4 ± 13.2
HGB	g/dL	14.8 ± 0.3	14.3 ± 0.2
HCT	%	46.9 ± 1.0	44.4 ± 1.0
MCV	fL	55.1 ± 0.3	54.8 ± 0.5
MCH	pg	17.4 ± 0.1	17.7 ± 0.2
MCHC	g/dL	31.4 ± 0.3	32.3 ± 0.6
PLT	× 10 ⁴ /μL	65.1 ± 6.5	62.5 ± 5.6

Values are mean ± S.D.
飼料: ラボMRストック(日本農産工業)

■血液生化学検査

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
AST	U/L	95.0 ± 5.4	91.2 ± 5.2
ALT	U/L	56.7 ± 5.9	42.7 ± 3.1
ALP	U/L	260.5 ± 16.7	192.7 ± 11.7
ALB	g/dL	4.6 ± 0.2	4.6 ± 0.1
TP	g/dL	6.1 ± 0.2	6.0 ± 0.2
A/G		3.0 ± 0.3	3.2 ± 0.4
GLU	mg/dL	122.5 ± 9.9	95.7 ± 10.4
T-BIL	mg/dL	0.05 ± 0.01	0.05 ± 0.01
T-CHO	mg/dL	57.6 ± 3.8	85.6 ± 5.7
TG	mg/dL	40.3 ± 6.7	37.3 ± 6.5
PL	mg/dL	103.3 ± 5.7	135.1 ± 6.7
Ca	mg/dL	10.7 ± 0.3	10.6 ± 0.2
IP	mg/dL	7.0 ± 0.5	7.2 ± 0.6
BUN	mg/dL	19.9 ± 1.9	18.0 ± 1.2
CRE	mg/dL	0.32 ± 0.02	0.32 ± 0.01
Na	mEq/L	143.0 ± 0.8	143.3 ± 1.0
K	mEq/L	4.0 ± 0.1	4.2 ± 0.2
Cl	mEq/L	101.8 ± 1.0	103.3 ± 0.8

Values are mean ± S.D.
飼料: ラボMRストック(日本農産工業)

■器官重量

Items	Unit	Male	Female
		10 weeks n=10	10 weeks n=10
Body weight	g	216.8 ± 16.3	138.8 ± 6.3
Absolute organ weight			
Brain	g	1.789 ± 0.061	1.708 ± 0.031
Heart	g	0.629 ± 0.037	0.439 ± 0.025
Lung	g	0.822 ± 0.059	0.609 ± 0.043
Kidney (L)	g	0.731 ± 0.073	0.478 ± 0.021
(R)	g	0.689 ± 0.059	0.466 ± 0.022
Spleen	g	0.477 ± 0.041	0.358 ± 0.026
Liver	g	6.258 ± 0.539	3.928 ± 0.242
Testis (L)	g	1.287 ± 0.073	
(R)	g	1.234 ± 0.060	
Ovary (L)	mg		24.1 ± 2.6
(R)	mg		24.7 ± 4.8
Uterus	g		0.244 ± 0.079
Adrenal (L)	mg	18.6 ± 1.8	20.5 ± 1.7
(R)	mg	18.1 ± 2.1	18.7 ± 1.8
Thymus	g	0.241 ± 0.017	0.229 ± 0.013
Pituitary	mg	6.0 ± 1.5	8.0 ± 1.7
Thyroid gland	mg	11.9 ± 1.8	9.1 ± 2.1
Salivary gland (L)	g	0.190 ± 0.017	0.136 ± 0.014
(R)	g	0.194 ± 0.017	0.139 ± 0.010
Relative organ weight			
Brain	g%	0.83 ± 0.06	1.23 ± 0.05
Heart	g%	0.29 ± 0.01	0.32 ± 0.01
Lung	g%	0.38 ± 0.01	0.44 ± 0.02
Kidney (L)	g%	0.34 ± 0.01	0.34 ± 0.01
(R)	g%	0.32 ± 0.01	0.34 ± 0.01
Spleen	g%	0.22 ± 0.01	0.26 ± 0.01
Liver	g%	2.88 ± 0.06	2.83 ± 0.08
Testis (L)	g%	0.59 ± 0.02	
(R)	g%	0.57 ± 0.03	
Ovary (L)	mg%		17.33 ± 1.35
(R)	mg%		17.75 ± 2.97
Uterus	g%		0.18 ± 0.06
Adrenal (L)	mg%	8.59 ± 0.53	14.75 ± 1.20
(R)	mg%	8.33 ± 0.58	13.49 ± 1.20
Thymus	g%	0.11 ± 0.00	0.16 ± 0.01
Pituitary	mg%	2.74 ± 0.64	5.75 ± 1.26
Thyroid gland	mg%	5.49 ± 0.84	6.50 ± 1.40
Salivary gland (L)	g%	0.09 ± 0.00	0.10 ± 0.01
(R)	g%	0.09 ± 0.00	0.10 ± 0.00

Values are mean ± S.D.
飼料: ラボMRストック(日本農産工業)

品系: Slc:Syrian

- 特色
- 在低溫環境下會進入冬眠狀態
 - 頰囊(頰袋)部位對移植片不產生排斥反應
 - 容易誘發飲食性高脂血症

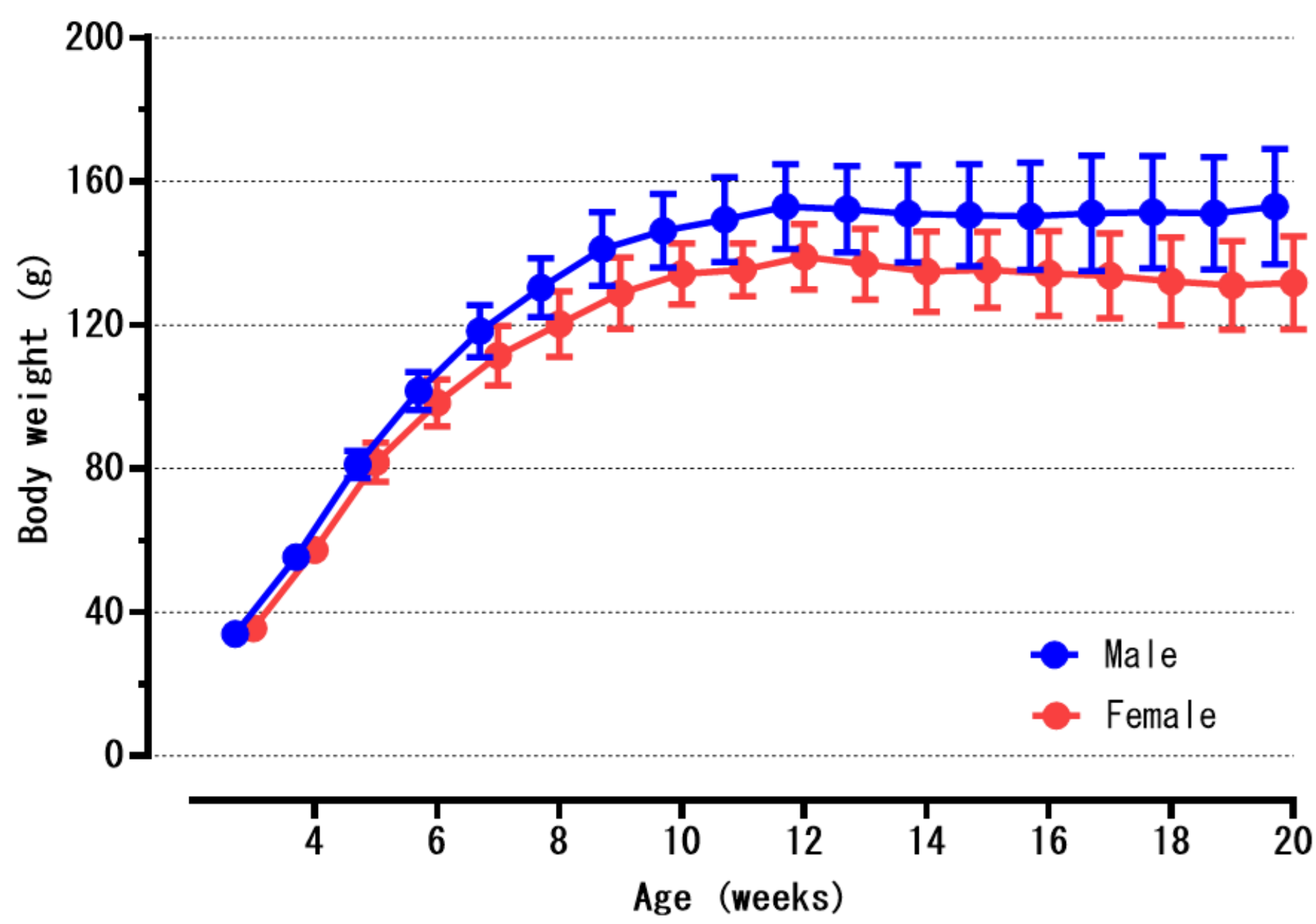
- 用途
- 感染性疾病研究(如 SARS-CoV-2 等)¹⁾
 - 癌症研究(致癌性研究)
 - 抗癌治療誘發口腔黏膜炎研究²⁾
 - 倉鼠來源細胞研究

來源
1978年自日本生物科學研究所引進



1) Imai et al. Proc Natl Acad Sci. 2020. 117:16587–16595.
2) Watanabe et al. J Pharmacol Sci. 2013. 121:110–118.

■ 體重曲線



		Age (weeks)																	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Male	Mean (g)	34.0	55.4	81.1	101.6	118.3	130.4	141.2	146.3	149.4	153.0	152.2	151.0	150.6	150.3	151.1	151.4	151.1	153.0
	S.D.	1.7	2.6	3.9	5.3	7.3	8.2	10.2	10.3	11.9	11.8	12.0	13.6	14.2	15.0	16.0	15.6	15.6	16.0
Female	Mean (g)	35.5	57.3	81.8	98.4	111.5	120.2	128.9	134.2	135.4	139.0	136.9	134.9	135.4	134.3	133.7	132.2	131.0	131.8
	S.D.	2.5	3.1	5.5	6.5	8.3	9.2	9.9	8.4	7.3	9.1	9.9	11.2	10.6	11.8	11.7	12.2	12.3	13.0

飼料: ラボHスタンダード(日本農産工業)
※個別飼育下での測定

■血液學検査

Items	Unit	Male		Female	
		10 weeks	20 weeks	10 weeks	20 weeks
		n=8	n=9	n=9	n=10
WBC	× 10 ² /μL	47.8 ± 14.7	25.8 ± 14.2	60.9 ± 9.9	33.7 ± 8.4
RBC	× 10 ⁴ /μL	985.1 ± 44.3	934.7 ± 19.5	916.8 ± 28.3	878.4 ± 29.2
HGB	g/dL	19.5 ± 0.9	18.9 ± 0.5	18.2 ± 0.4	18.0 ± 0.5
HCT	%	60.0 ± 3.2	53.4 ± 1.2	55.7 ± 1.2	51.8 ± 1.4
MCV	fL	60.9 ± 1.2	57.2 ± 0.9	60.8 ± 1.4	59.0 ± 0.9
MCH	pg	19.8 ± 0.4	20.2 ± 0.4	19.8 ± 0.3	20.5 ± 0.3
MCHC	g/dL	32.5 ± 0.5	35.4 ± 0.3	32.6 ± 0.5	34.7 ± 0.3
PLT	× 10 ⁴ /μL	65.9 ± 9.9	56.6 ± 6.2	80.4 ± 11.2	71.7 ± 12.0

Values are mean ± S.D.
飼料: ラボHスタンダード(日本農産工業)

■血液生化学検査

Items	Unit	Male		Female	
		10 weeks	20 weeks	10 weeks	20 weeks
		n=10	n=9	n=10	n=10
AST	U/L	74.1 ± 21.9	71.6 ± 25.3	52.5 ± 11.4	48.1 ± 19.7
ALT	U/L	133.0 ± 47.8	135.1 ± 36.0	62.8 ± 12.8	55.7 ± 10.8
ALP	U/L	301.9 ± 45.3	155.6 ± 24.5	297.8 ± 41.9	177.7 ± 12.7
ALB	g/dL	3.6 ± 0.2	3.6 ± 0.1	3.2 ± 0.1	3.2 ± 0.1
TP	g/dL	6.2 ± 0.2	6.4 ± 0.3	5.9 ± 0.2	6.0 ± 0.2
A/G		1.3 ± 0.1	1.3 ± 0.1	1.2 ± 0.1	1.1 ± 0.1
GLU	mg/dL	107.2 ± 23.0	116.8 ± 32.3	127.2 ± 23.7	148.4 ± 19.9
T-BIL	mg/dL	0.05 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.04 ± 0.01
T-CHO	mg/dL	214.0 ± 22.2	222.8 ± 22.5	176.9 ± 18.3	175.3 ± 20.6
TG	mg/dL	36.4 ± 8.7	67.3 ± 34.8	49.6 ± 13.3	99.8 ± 43.6
PL	mg/dL	213.3 ± 17.0	229.9 ± 16.6	208.0 ± 12.5	209.3 ± 14.8
Ca	mg/dL	10.8 ± 0.3	11.2 ± 0.4	10.5 ± 0.4	11.5 ± 0.4
IP	mg/dL	4.9 ± 0.5	5.0 ± 0.4	5.7 ± 0.6	5.6 ± 0.4
BUN	mg/dL	26.4 ± 3.1	24.5 ± 3.9	30.3 ± 3.1	24.7 ± 4.1
CRE	mg/dL	0.25 ± 0.03	0.24 ± 0.04	0.21 ± 0.02	0.20 ± 0.04
Na	mEq/L	139.6 ± 1.3	139.3 ± 1.6	138.4 ± 1.1	140.8 ± 1.4
K	mEq/L	5.0 ± 0.3	5.3 ± 0.5	5.6 ± 0.3	5.4 ± 0.5
Cl	mEq/L	102.4 ± 0.7	102.1 ± 1.4	104.5 ± 1.6	104.7 ± 1.2

Values are mean ± S.D.
飼料: ラボHスタンダード(日本農産工業)

■ 器官重量

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=10
Body weight	g	110.7 ± 10.8	146.9 ± 15.0	82.1 ± 7.6	127.6 ± 12.0
Absolute organ weight					
Brain	g	1.090 ± 0.039	1.112 ± 0.044	1.022 ± 0.047	1.122 ± 0.047
Heart	g	0.313 ± 0.023	0.401 ± 0.025	0.267 ± 0.022	0.379 ± 0.022
Lung	g	0.513 ± 0.048	0.698 ± 0.266	0.464 ± 0.040	0.669 ± 0.044
Kidney (L)	g	0.454 ± 0.030	0.581 ± 0.056	0.399 ± 0.033	0.530 ± 0.060
(R)	g	0.451 ± 0.035	0.565 ± 0.043	0.377 ± 0.044	0.529 ± 0.060
Spleen	g	0.101 ± 0.018	0.113 ± 0.018	0.089 ± 0.020	0.143 ± 0.024
Liver	g	3.909 ± 0.372	5.633 ± 1.007	2.863 ± 0.227	4.419 ± 0.381
Testis (L)	g	1.903 ± 0.128	2.016 ± 0.225		
(R)	g	1.918 ± 0.142	1.943 ± 0.158		
Ovary (L)	mg			13.2 ± 4.2	16.4 ± 5.5
(R)	mg			14.0 ± 3.6	16.7 ± 3.7
Uterus	g			0.326 ± 0.090	0.421 ± 0.119
Adrenal (L)	mg	12.1 ± 0.9	14.5 ± 1.5	7.2 ± 1.2	9.7 ± 1.2
(R)	mg	10.0 ± 1.8	12.9 ± 1.5	6.7 ± 1.0	9.0 ± 1.2
Thymus	g	0.052 ± 0.004	0.039 ± 0.005	0.054 ± 0.008	0.042 ± 0.007
Pituitary	mg	2.7 ± 0.5	3.6 ± 0.6	3.5 ± 1.0	4.2 ± 1.0
Thyroid gland	mg	9.2 ± 4.2	9.8 ± 4.4	9.1 ± 3.9	9.5 ± 7.0
Salivary gland (L)	g	0.201 ± 0.052	0.272 ± 0.032	0.154 ± 0.025	0.222 ± 0.020
(R)	g	0.207 ± 0.040	0.266 ± 0.036	0.156 ± 0.018	0.223 ± 0.024
Relative organ weight					
Brain	g%	0.99 ± 0.10	0.76 ± 0.08	1.25 ± 0.10	0.89 ± 0.08
Heart	g%	0.28 ± 0.02	0.27 ± 0.02	0.33 ± 0.01	0.30 ± 0.02
Lung	g%	0.46 ± 0.01	0.48 ± 0.20	0.57 ± 0.02	0.53 ± 0.04
Kidney (L)	g%	0.41 ± 0.03	0.40 ± 0.03	0.49 ± 0.02	0.42 ± 0.05
(R)	g%	0.41 ± 0.02	0.39 ± 0.03	0.46 ± 0.04	0.42 ± 0.05
Spleen	g%	0.09 ± 0.01	0.08 ± 0.01	0.11 ± 0.02	0.11 ± 0.01
Liver	g%	3.53 ± 0.13	3.85 ± 0.70	3.49 ± 0.14	3.47 ± 0.17
Testis (L)	g%	1.73 ± 0.13	1.39 ± 0.23		
(R)	g%	1.74 ± 0.16	1.33 ± 0.14		
Ovary (L)	mg%			16.09 ± 4.55	12.81 ± 4.16
(R)	mg%			17.03 ± 4.11	13.11 ± 3.03
Uterus	g%			0.40 ± 0.12	0.33 ± 0.07
Adrenal (L)	mg%	10.99 ± 1.07	9.99 ± 1.58	8.82 ± 1.42	7.66 ± 1.06
(R)	mg%	9.07 ± 1.71	8.88 ± 1.50	8.16 ± 0.98	7.02 ± 0.67
Thymus	g%	0.05 ± 0.00	0.03 ± 0.00	0.07 ± 0.01	0.03 ± 0.00
Pituitary	mg%	2.47 ± 0.46	2.45 ± 0.52	4.28 ± 1.28	3.37 ± 0.95
Thyroid gland	mg%	8.29 ± 3.82	6.53 ± 2.66	11.19 ± 4.78	7.34 ± 5.16
Salivary gland (L)	g%	0.18 ± 0.05	0.19 ± 0.02	0.19 ± 0.03	0.18 ± 0.02
(R)	g%	0.19 ± 0.04	0.18 ± 0.02	0.19 ± 0.02	0.18 ± 0.02

Values are mean ± S.D.
飼料: ラボHスタンダード (日本農産工業)

品系： Slc:Hartley

特色

原為常規(conventional)封閉群 Hartley 天竺鼠, 於
1981 年透過子宮切除及人工哺乳方式建立 SPF 化系統

用途

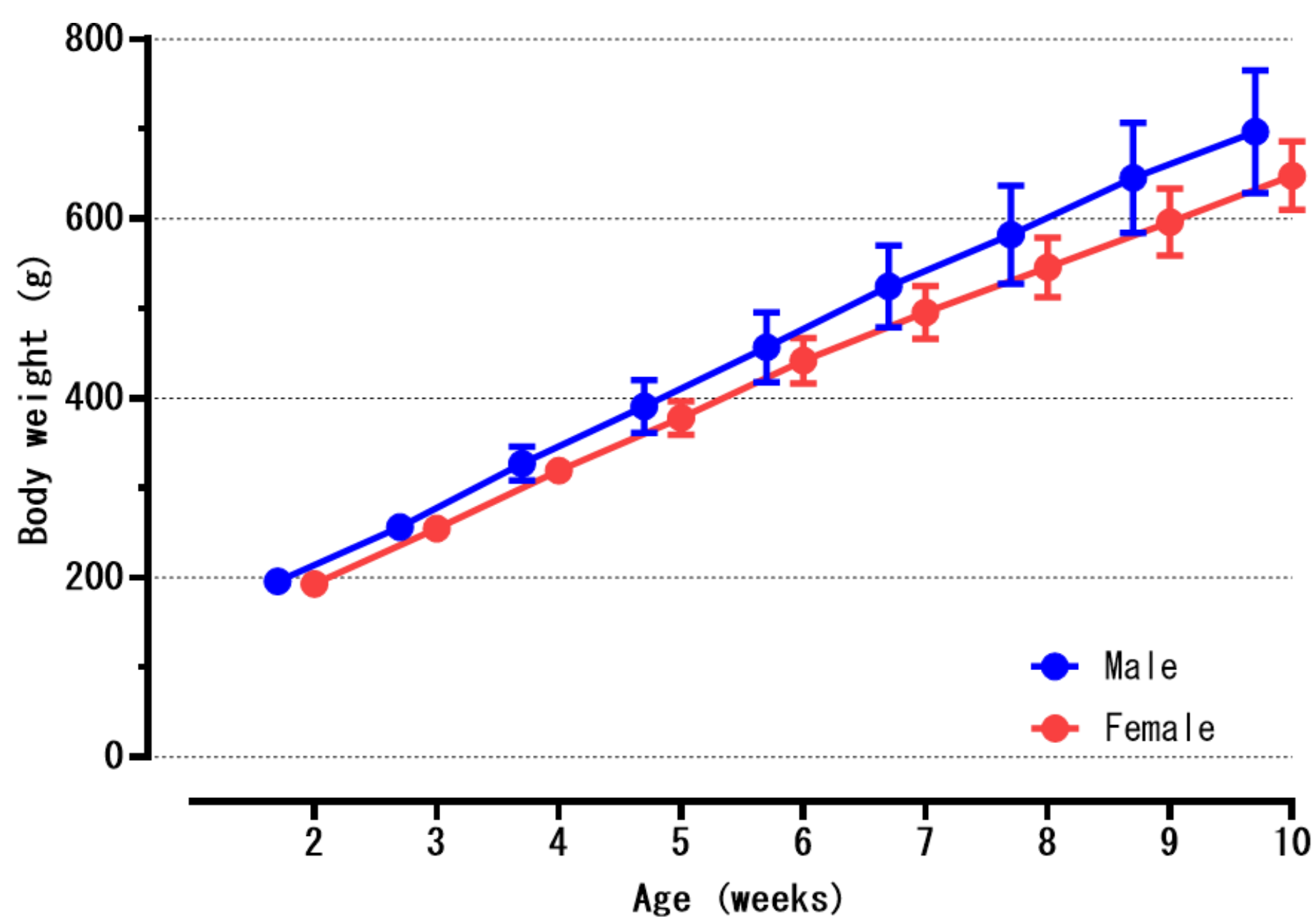
- 疫苗試驗
- 皮膚致敏性試驗
- 支氣管過敏性／氣喘相關試驗
- 用於聽覺研究領域



來源

1959年自國立預防衛生研究所(現國立健康危機管理機構 國立感染症研究所)引進

■ 體重曲線



		Age (weeks)								
		2	3	4	5	6	7	8	9	10
Male (n=9)	Mean (g)	195.8	256.4	327.1	390.8	456.9	524.8	582.2	645.2	696.9
	S.D.	3.9	11.3	19.1	29.6	38.9	45.8	54.8	61.5	68.4
Female (n=10)	Mean (g)	193.2	254.7	319.1	377.9	441.7	495.4	545.5	596.1	647.9
	S.D.	6.5	10.4	12.4	18.9	25.3	29.7	33.5	37.1	37.9

飼料: ラボGスタンダードA(日本農産工業)

■血液學検査

Items	Unit	Male		Female	
		5 weeks n=10	10 weeks n=9	5 weeks n=10	10 weeks n=10
WBC	× 10 ² /μL	23.9 ± 8.0	32.4 ± 7.3	24.4 ± 7.0	31.8 ± 5.9
RBC	× 10 ⁴ /μL	513.3 ± 27.1	543.3 ± 12.1	524.8 ± 24.5	545.4 ± 19.0
HGB	g/dL	13.4 ± 0.5	14.7 ± 0.3	13.7 ± 0.7	14.9 ± 0.7
HCT	%	45.8 ± 1.8	48.2 ± 1.3	47.5 ± 2.4	49.5 ± 2.2
MCV	fL	89.3 ± 3.3	88.8 ± 1.9	90.5 ± 2.2	90.7 ± 2.3
MCH	pg	26.1 ± 1.1	27.1 ± 0.5	26.1 ± 0.7	27.3 ± 0.7
MCHC	g/dL	29.2 ± 1.0	30.6 ± 0.6	28.9 ± 0.4	30.1 ± 0.4
PLT	× 10 ⁴ /μL	50.5 ± 5.3	47.4 ± 8.0	45.1 ± 7.5	59.6 ± 5.0

Values are mean ± S.D.
飼料: ラボGスタンダードA (日本農産工業)

■血液生化学検査

Items	Unit	Male		Female	
		5 weeks n=10	10 weeks n=9	5 weeks n=10	10 weeks n=9
AST	U/L	93.9 ± 58.0	164.0 ± 95.1	96.6 ± 50.4	139.4 ± 55.5
ALT	U/L	53.9 ± 11.9	67.8 ± 24.5	60.6 ± 15.4	61.8 ± 13.3
ALP	U/L	297.8 ± 19.9	152.2 ± 23.0	238.2 ± 41.7	141.3 ± 20.8
ALB	g/dL	2.9 ± 0.2	3.3 ± 0.1	3.0 ± 0.2	3.4 ± 0.3
TP	g/dL	4.6 ± 0.3	5.3 ± 0.2	4.6 ± 0.2	5.6 ± 0.5
A/G		1.7 ± 0.1	1.7 ± 0.1	1.8 ± 0.2	1.6 ± 0.1
GLU	mg/dL	148.4 ± 33.4	159.0 ± 40.8	159.3 ± 13.9	177.1 ± 33.7
T-BIL	mg/dL	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01
T-CHO	mg/dL	36.5 ± 10.0	49.6 ± 14.4	43.6 ± 10.3	72.0 ± 20.7
TG	mg/dL	50.9 ± 25.9	109.2 ± 31.4	55.6 ± 23.9	173.6 ± 106.0
PL	mg/dL	38.0 ± 7.7	50.3 ± 11.3	39.4 ± 8.3	57.7 ± 17.1
Ca	mg/dL	9.9 ± 0.5	9.5 ± 0.5	9.9 ± 0.6	9.2 ± 0.5
IP	mg/dL	9.8 ± 1.3	8.9 ± 0.5	8.8 ± 0.6	9.2 ± 0.8
BUN	mg/dL	27.5 ± 2.4	37.6 ± 4.3	30.6 ± 5.1	36.2 ± 7.2
CRE	mg/dL	0.30 ± 0.04	0.41 ± 0.06	0.28 ± 0.04	0.45 ± 0.07
Na	mEq/L	139.0 ± 1.5	139.2 ± 1.8	140.1 ± 1.5	139.7 ± 1.9
K	mEq/L	5.5 ± 1.9	3.5 ± 0.5	4.0 ± 1.2	3.7 ± 0.4
Cl	mEq/L	106.1 ± 3.0	104.0 ± 2.7	106.8 ± 1.2	104.8 ± 3.0

Values are mean ± S.D.
飼料: ラボGスタンダードA (日本農産工業)

■ 器官重量

Items	Unit	Male		Female	
		5 weeks	10 weeks	5 weeks	10 weeks
		n=10	n=9	n=10	n=10
Body weight	g	367.8 ± 31.3	656.8 ± 56.9	334.4 ± 19.3	608.2 ± 36.6
Absolute organ weight					
Brain	g	3.601 ± 0.055	3.926 ± 0.326	3.450 ± 0.190	3.837 ± 0.173
Heart	g	1.508 ± 0.154	2.286 ± 0.340	1.449 ± 0.119	2.034 ± 0.171
Lung	g	2.431 ± 0.301	2.948 ± 0.328	2.286 ± 0.290	2.999 ± 0.147
Kidney (L)	g	1.853 ± 0.245	2.741 ± 0.248	1.620 ± 0.142	2.508 ± 0.225
(R)	g	1.808 ± 0.248	2.644 ± 0.227	1.592 ± 0.152	2.440 ± 0.232
Spleen	g	0.514 ± 0.067	0.638 ± 0.132	0.530 ± 0.131	0.757 ± 0.147
Liver	g	15.348 ± 2.020	26.901 ± 3.629	14.108 ± 1.022	25.317 ± 3.489
Testis (L)	g	0.469 ± 0.077	1.477 ± 0.122		
(R)	g	0.483 ± 0.082	1.455 ± 0.150		
Ovary (L)	mg			47.0 ± 9.7	46.8 ± 14.0
(R)	mg			45.2 ± 10.2	51.9 ± 8.4
Uterus	g			1.002 ± 0.416	1.164 ± 0.262
Adrenal (L)	mg	79.9 ± 14.6	146.7 ± 31.0	87.3 ± 14.3	160.5 ± 25.8
(R)	mg	72.4 ± 9.8	137.1 ± 40.0	80.6 ± 22.1	151.3 ± 24.7
Thymus	g	0.643 ± 0.078	0.659 ± 0.113	0.721 ± 0.100	0.910 ± 0.096
Pituitary	mg	9.7 ± 7.2	16.8 ± 7.6	11.8 ± 5.0	12.1 ± 3.7
Thyroid gland	mg	75.3 ± 18.0	83.4 ± 14.9	66.8 ± 17.5	75.6 ± 15.2
Salivary gland (L)	g	0.232 ± 0.115	0.332 ± 0.149	0.246 ± 0.071	0.320 ± 0.131
(R)	g	0.214 ± 0.071	0.336 ± 0.144	0.228 ± 0.090	0.315 ± 0.105
Relative organ weight					
Brain	g%	0.98 ± 0.08	0.60 ± 0.05	1.04 ± 0.10	0.63 ± 0.05
Heart	g%	0.41 ± 0.06	0.35 ± 0.04	0.43 ± 0.03	0.33 ± 0.03
Lung	g%	0.66 ± 0.07	0.45 ± 0.02	0.68 ± 0.06	0.49 ± 0.03
Kidney (L)	g%	0.50 ± 0.05	0.42 ± 0.02	0.48 ± 0.04	0.41 ± 0.03
(R)	g%	0.49 ± 0.05	0.40 ± 0.02	0.48 ± 0.04	0.40 ± 0.02
Spleen	g%	0.14 ± 0.01	0.10 ± 0.02	0.16 ± 0.04	0.12 ± 0.02
Liver	g%	4.16 ± 0.31	4.08 ± 0.28	4.22 ± 0.21	4.15 ± 0.36
Testis (L)	g%	0.13 ± 0.02	0.23 ± 0.03		
(R)	g%	0.13 ± 0.02	0.22 ± 0.03		
Ovary (L)	mg%			14.01 ± 2.44	7.75 ± 2.34
(R)	mg%			13.49 ± 2.86	8.57 ± 1.55
Uterus	g%			0.30 ± 0.12	0.19 ± 0.05
Adrenal (L)	mg%	21.82 ± 3.99	22.45 ± 5.07	26.18 ± 4.60	26.50 ± 4.59
(R)	mg%	19.81 ± 3.13	20.97 ± 5.97	24.06 ± 6.34	24.96 ± 4.39
Thymus	g%	0.17 ± 0.02	0.10 ± 0.02	0.22 ± 0.03	0.15 ± 0.01
Pituitary	mg%	2.61 ± 1.69	2.57 ± 1.19	3.52 ± 1.44	1.99 ± 0.57
Thyroid gland	mg%	20.45 ± 4.58	12.63 ± 1.54	19.88 ± 4.54	12.43 ± 2.41
Salivary gland (L)	g%	0.06 ± 0.03	0.05 ± 0.02	0.07 ± 0.02	0.05 ± 0.02
(R)	g%	0.06 ± 0.02	0.05 ± 0.02	0.07 ± 0.03	0.05 ± 0.02

Values are mean ± S.D.
飼料: ラボGスタンダードA (日本農産工業)

老化小鼠／加齢模型



104週齢のC57BL/6NCrSlc小鼠

品系： C57BL/6NCrSlc

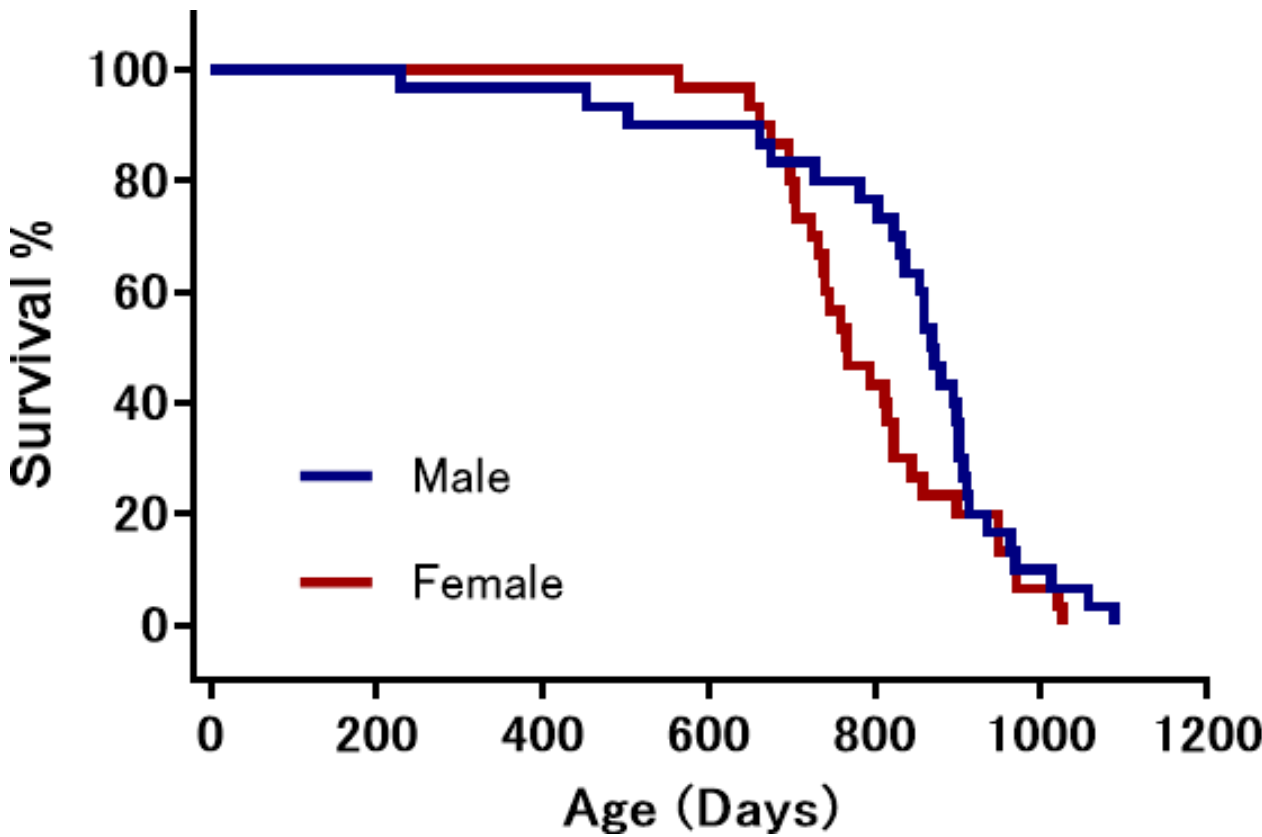
用途

- 老化與衰老機制解析
- 老化調控研究
- 失智症、骨質疏鬆、衰弱症 (frailty) 等老年疾病研究
- 免疫功能的年齡相關變化 ¹⁾

1) Ishida et al. Toxicol Res (Camb). 2025. 14:tfaf110.

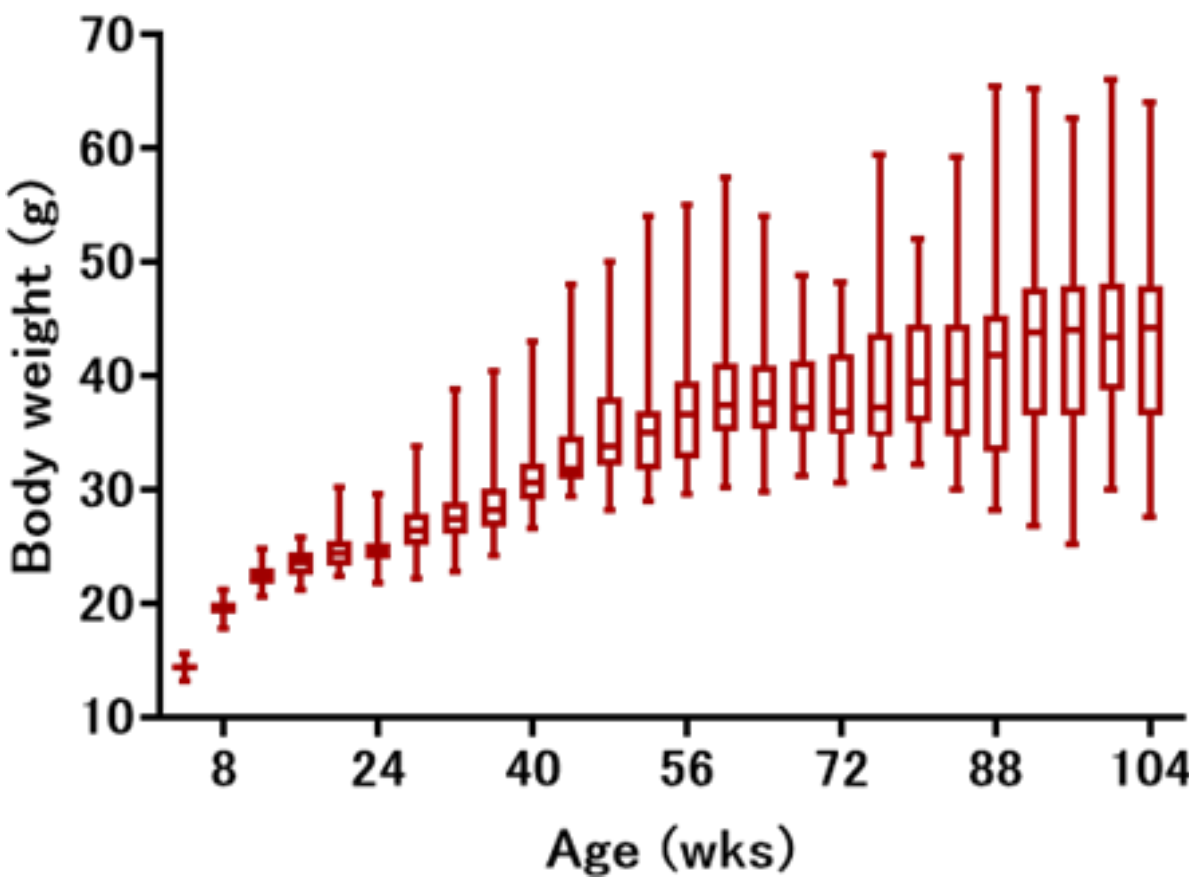
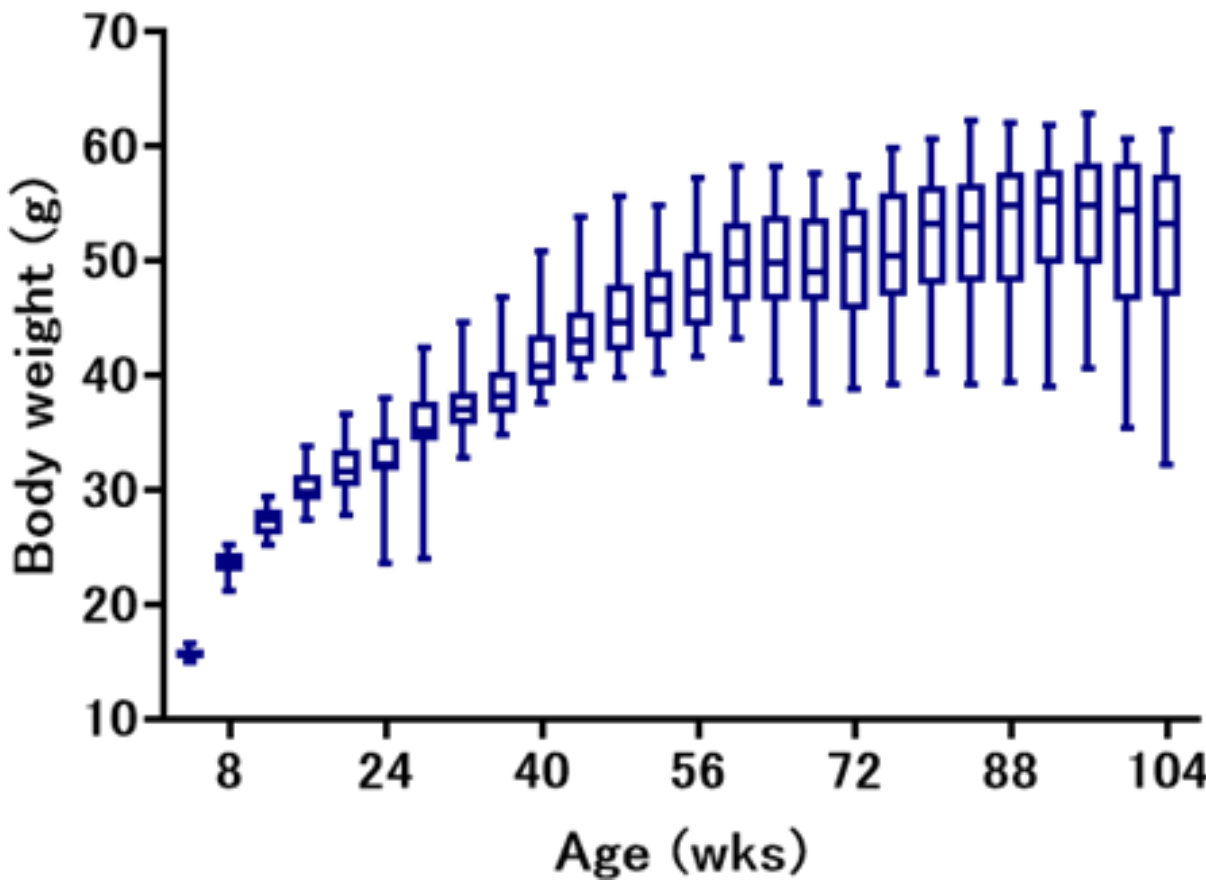
將雌雄 C57BL/6NCrSlc 小鼠餵食標準飼料 5L3R (PMI Nutrition International)，並進行長期飼養。同時實施體重測定、血液學檢查、血液生化學檢查及器官重量測定，並評估運動功能 (rotarod test) 及認知功能 (Morris water maze test)。

■生存曲線



雌雄 N=30ずつ
飼育: 5匹/ケージ (群飼育)
飼料: 5L3R (PMI Nutrition International)

■體重曲線



飼料: 5L3R (PMI Nutrition International)

■血液學検査

Items	Unit	Male			
		2 months n=10	12 months n=10	18 months n=10	24 months n=10
WBC	×10 ² /μL	33.0 ± 3.4	21.0 ± 1.8	20.6 ± 2.7	33.5 ± 5.2
RBC	×10 ⁴ /μL	944.1 ± 7.8	903.8 ± 9.9	903.3 ± 8.1	823.9 ± 42.5
HGB	g/dL	14.4 ± 0.1	12.8 ± 0.1	12.4 ± 0.2	11.6 ± 0.4
HCT	%	50.9 ± 0.5	45.6 ± 0.6	43.4 ± 0.4	40.7 ± 1.3
MCV	fL	53.9 ± 0.3	50.5 ± 0.2	48.1 ± 0.2	50.0 ± 1.4
MCH	pg	15.3 ± 0.1	14.1 ± 0.1	13.8 ± 0.1	14.2 ± 0.4
MCHC	g/dL	28.4 ± 0.1	28.0 ± 0.2	28.6 ± 0.1	28.4 ± 0.3
PLT	×10 ⁴ /μL	100.2 ± 2.5	142.7 ± 4.3	147.9 ± 6.1	167.5 ± 18.6

Items	Unit	Female			
		2 months n=10	12 months n=10	18 months n=10	24 months n=9
WBC	×10 ² /μL	20.2 ± 3.8	25.6 ± 4.4	18.2 ± 2.4	13.0 ± 2.2
RBC	×10 ⁴ /μL	883.2 ± 5.8	881.4 ± 10.3	825.3 ± 21.8	804.4 ± 5.4
HGB	g/dL	13.6 ± 0.1	12.5 ± 0.1	11.7 ± 0.4	12.0 ± 0.1
HCT	%	48.8 ± 0.5	44.4 ± 0.4	41.3 ± 1.1	40.4 ± 0.3
MCV	fL	55.2 ± 0.4	50.4 ± 0.2	50.1 ± 0.4	50.2 ± 0.3
MCH	pg	15.4 ± 0.1	14.2 ± 0.1	14.1 ± 0.2	15.0 ± 0.1
MCHC	g/dL	27.9 ± 0.3	28.2 ± 0.1	28.2 ± 0.3	29.8 ± 0.1
PLT	×10 ⁴ /μL	85.9 ± 2.3	104.8 ± 7.1	110.4 ± 7.5	68.4 ± 10.6

Values are mean ± S.E.
飼料: 5L3R(PMI Nutrition International)

■血液生化學檢查

		Male			
Items	Unit	2 months n=10	12 months n=10	18 months n=10	24 months n=9
AST	U/L	64.8 ± 4.2	71.9 ± 5.0	98.9 ± 22.1	116.6 ± 16.0
ALT	U/L	24.6 ± 1.0	27.4 ± 2.0	58.5 ± 12.0	52.1 ± 10.3
ALP	U/L	115.0 ± 3.8	63.8 ± 1.0	81.2 ± 7.8	77.9 ± 4.1
ALB	g/dL	3.4 ± 0.1	3.3 ± 0.0	3.4 ± 0.1	3.2 ± 0.1
TP	g/dL	5.1 ± 0.1	5.2 ± 0.1	5.3 ± 0.1	5.1 ± 0.1
A/G		2.0 ± 0.1	1.8 ± 0.0	1.8 ± 0.1	1.8 ± 0.1
GLU	mg/dL	119.8 ± 6.1	134.9 ± 10.1	185.0 ± 8.0	110.9 ± 7.4
T-BIL	mg/dL	0.05 ± 0.01	0.04 ± 0.00	0.04 ± 0.00	0.03 ± 0.00
T-CHO	mg/dL	120.5 ± 5.1	95.5 ± 2.6	116.2 ± 4.6	97.2 ± 4.5
TG	mg/dL	148.3 ± 15.7	74.3 ± 7.3	61.9 ± 7.2	57.1 ± 3.7
PL	mg/dL	252.1 ± 9.5	190.8 ± 4.0	196.8 ± 7.7	176.7 ± 7.0
Ca	mg/dL	9.8 ± 0.1	9.5 ± 0.1	9.6 ± 0.1	9.4 ± 0.1
IP	mg/dL	9.7 ± 0.2	10.2 ± 0.5	8.9 ± 0.2	9.4 ± 0.5
BUN	mg/dL	25.3 ± 1.3	26.4 ± 1.0	25.6 ± 1.1	23.0 ± 1.3
CRE	mg/dL	0.13 ± 0.02	0.13 ± 0.01	0.12 ± 0.01	0.09 ± 0.01
Na	mEq/L	152.0 ± 0.6	149.8 ± 0.4	152.7 ± 0.5	157.3 ± 0.3
K	mEq/L	4.2 ± 0.1	4.1 ± 0.1	4.5 ± 0.2	4.6 ± 0.1
Cl	mEq/L	116.9 ± 0.5	113.7 ± 0.4	112.8 ± 1.1	115.3 ± 0.6

		Female			
Items	Unit	2 months n=10	12 months n=10	18 months n=10	24 months n=10
AST	U/L	61.4 ± 1.9	84.5 ± 2.3	88.7 ± 3.1	119.3 ± 8.1
ALT	U/L	27.8 ± 0.6	34.4 ± 1.0	35.5 ± 2.3	48.4 ± 5.2
ALP	U/L	156.1 ± 4.7	94.3 ± 8.1	117.7 ± 8.3	123.1 ± 26.6
ALB	g/dL	3.6 ± 0.0	3.4 ± 0.0	3.3 ± 0.1	3.2 ± 0.1
TP	g/dL	5.1 ± 0.0	5.3 ± 0.0	5.3 ± 0.1	5.4 ± 0.1
A/G		2.5 ± 0.1	1.8 ± 0.1	1.7 ± 0.1	1.5 ± 0.1
GLU	mg/dL	132.1 ± 7.4	116.7 ± 4.4	139.5 ± 7.8	92.0 ± 8.0
T-BIL	mg/dL	0.04 ± 0.00	0.02 ± 0.00	0.04 ± 0.00	0.04 ± 0.01
T-CHO	mg/dL	93.5 ± 2.9	81.1 ± 2.9	82.3 ± 2.6	96.3 ± 10.9
TG	mg/dL	39.0 ± 4.5	49.3 ± 4.6	37.3 ± 2.6	36.0 ± 4.2
PL	mg/dL	183.0 ± 4.9	151.9 ± 4.9	149.6 ± 5.1	165.7 ± 15.9
Ca	mg/dL	10.0 ± 0.1	9.5 ± 0.1	9.4 ± 0.1	9.7 ± 0.1
IP	mg/dL	9.0 ± 0.4	11.3 ± 0.8	7.6 ± 0.3	8.5 ± 0.4
BUN	mg/dL	22.9 ± 0.9	23.7 ± 0.8	23.8 ± 0.6	24.9 ± 2.8
CRE	mg/dL	0.17 ± 0.01	0.13 ± 0.01	0.11 ± 0.01	0.12 ± 0.02
Na	mEq/L	151.0 ± 0.2	149.8 ± 0.5	152.6 ± 0.5	156.5 ± 0.7
K	mEq/L	3.9 ± 0.1	4.0 ± 0.2	3.867 ± 0.1	4.1 ± 0.1
Cl	mEq/L	115.4 ± 0.4	111.1 ± 1.6	116.7 ± 0.3	114.6 ± 1.1

Values are mean ± S.E.
飼料: 5L3R(PMI Nutrition International)

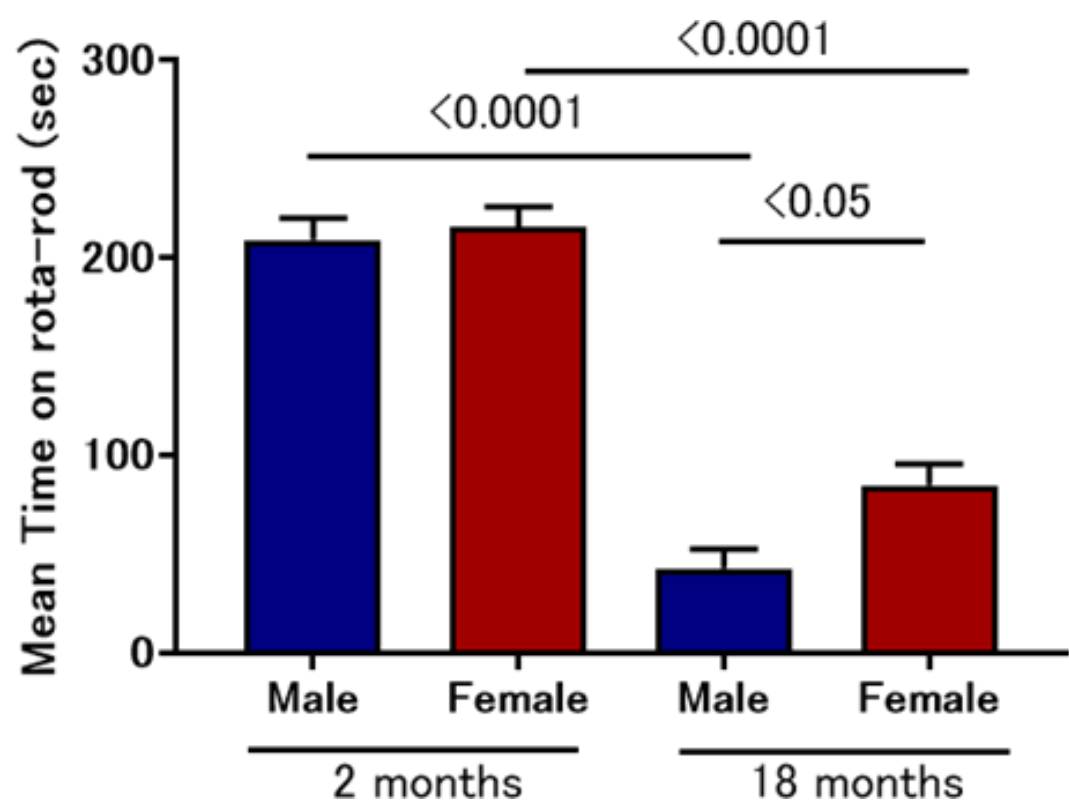
■器官重量

Items	Unit	Male			
		2 months n=20	12 months n=20	18 months n=20	24 months n=19
Body weight	g	23.2 ± 0.3	35.9 ± 1.3	45.0 ± 1.2	40.8 ± 1.7
Absolute organ weight					
Brain	g	0.444 ± 0.003	0.449 ± 0.002	0.454 ± 0.004	0.458 ± 0.004
Heart	g	0.114 ± 0.003	0.134 ± 0.003	0.143 ± 0.003	0.165 ± 0.006
Lung	g	0.140 ± 0.002	0.142 ± 0.002	0.160 ± 0.003	0.195 ± 0.032
Kidney (L)	g	0.146 ± 0.002	0.199 ± 0.005	0.202 ± 0.005	0.221 ± 0.006
(R)	g	0.154 ± 0.002	0.211 ± 0.004	0.198 ± 0.007	0.486 ± 0.259
Spleen	g	0.061 ± 0.002	0.060 ± 0.001	0.062 ± 0.003	0.107 ± 0.025
Liver	g	0.968 ± 0.018	1.277 ± 0.048	1.719 ± 0.116	1.743 ± 0.174
Testis (L)	g	0.076 ± 0.003	0.084 ± 0.002	0.085 ± 0.002	0.078 ± 0.002
(R)	g	0.077 ± 0.003	0.089 ± 0.002	0.085 ± 0.004	0.082 ± 0.003
Ovary (L)	mg				
(R)	mg				
Uterus	g				
Thymus	g	0.047 ± 0.001	0.031 ± 0.002	0.036 ± 0.004	0.022 ± 0.002
Salivary gland (L)	g	0.070 ± 0.002	0.090 ± 0.002	0.089 ± 0.002	0.088 ± 0.002
(R)	g	0.070 ± 0.003	0.093 ± 0.003	0.089 ± 0.003	0.090 ± 0.002
Relative organ weight					
Brain	g%	1.92 ± 0.03	1.28 ± 0.04	1.02 ± 0.03	1.12 ± 0.05
Heart	g%	0.49 ± 0.01	0.38 ± 0.01	0.32 ± 0.01	0.40 ± 0.02
Lung	g%	0.61 ± 0.01	0.41 ± 0.02	0.36 ± 0.01	0.48 ± 0.12
Kidney (L)	g%	0.63 ± 0.01	0.56 ± 0.02	0.45 ± 0.02	0.54 ± 0.02
(R)	g%	0.66 ± 0.01	0.60 ± 0.02	0.44 ± 0.01	1.19 ± 0.54
Spleen	g%	0.26 ± 0.01	0.17 ± 0.01	0.14 ± 0.00	0.26 ± 0.05
Liver	g%	4.17 ± 0.08	3.67 ± 0.23	3.76 ± 0.15	4.27 ± 0.29
Testis (L)	g%	0.33 ± 0.01	0.24 ± 0.01	0.19 ± 0.01	0.19 ± 0.01
(R)	g%	0.33 ± 0.01	0.25 ± 0.01	0.19 ± 0.01	0.20 ± 0.01
Ovary (L)	mg%				
(R)	mg%				
Uterus	g%				
Thymus	g%	0.20 ± 0.01	0.09 ± 0.01	0.08 ± 0.01	0.05 ± 0.01
Salivary gland (L)	g%	0.30 ± 0.01	0.26 ± 0.01	0.20 ± 0.01	0.22 ± 0.01
(R)	g%	0.30 ± 0.01	0.26 ± 0.01	0.20 ± 0.01	0.22 ± 0.01

Items	Unit	Female			
		2 months n=20	12 months n=20	18 months n=20	24 months n=19
Body weight	g	18.4 ± 0.2	29.2 ± 0.7	33.0 ± 0.9	34.1 ± 1.2
Absolute organ weight					
Brain	g	0.447 ± 0.003	0.469 ± 0.003	0.469 ± 0.003	0.470 ± 0.004
Heart	g	0.095 ± 0.002	0.110 ± 0.002	0.119 ± 0.004	0.143 ± 0.006
Lung	g	0.128 ± 0.003	0.150 ± 0.003	0.158 ± 0.002	0.169 ± 0.004
Kidney (L)	g	0.131 ± 0.015	0.150 ± 0.002	0.162 ± 0.007	0.257 ± 0.067
(R)	g	0.128 ± 0.003	0.159 ± 0.003	0.179 ± 0.006	0.213 ± 0.005
Spleen	g	0.075 ± 0.003	0.082 ± 0.003	0.096 ± 0.005	0.152 ± 0.011
Liver	g	0.806 ± 0.010	1.120 ± 0.015	1.208 ± 0.019	1.400 ± 0.064
Testis (L)	g				
(R)	g				
Ovary (L)	mg	4.8 ± 0.6	3.3 ± 0.3	2.9 ± 0.3	1.9 ± 0.2
(R)	mg	4.3 ± 0.4	3.2 ± 0.2	3.2 ± 0.3	6.0 ± 3.6
Uterus	g	0.106 ± 0.039	0.098 ± 0.006	0.125 ± 0.005	0.089 ± 0.008
Thymus	g	0.059 ± 0.002	0.037 ± 0.002	0.037 ± 0.002	0.019 ± 0.002
Salivary gland (L)	g	0.041 ± 0.001	0.042 ± 0.001	0.044 ± 0.001	0.042 ± 0.001
(R)	g	0.042 ± 0.001	0.042 ± 0.001	0.045 ± 0.002	0.043 ± 0.001
Relative organ weight					
Brain	g%	2.43 ± 0.03	1.63 ± 0.04	1.44 ± 0.04	1.42 ± 0.06
Heart	g%	0.52 ± 0.01	0.38 ± 0.02	0.37 ± 0.02	0.44 ± 0.03
Lung	g%	0.69 ± 0.01	0.52 ± 0.02	0.49 ± 0.02	0.51 ± 0.02
Kidney (L)	g%	0.72 ± 0.09	0.52 ± 0.01	0.50 ± 0.03	0.80 ± 0.24
(R)	g%	0.70 ± 0.02	0.55 ± 0.02	0.56 ± 0.03	0.65 ± 0.04
Spleen	g%	0.41 ± 0.02	0.28 ± 0.01	0.30 ± 0.02	0.45 ± 0.03
Liver	g%	4.38 ± 0.03	3.87 ± 0.07	3.71 ± 0.10	4.19 ± 0.24
Testis (L)	g%				
(R)	g%				
Ovary (L)	mg%	25.94 ± 3.12	11.61 ± 1.08	9.08 ± 1.13	5.59 ± 0.76
(R)	mg%	23.49 ± 1.89	11.22 ± 0.70	9.99 ± 1.09	18.24 ± 10.84
Uterus	g%	0.55 ± 0.19	0.34 ± 0.02	0.39 ± 0.02	0.27 ± 0.03
Thymus	g%	0.32 ± 0.01	0.13 ± 0.01	0.11 ± 0.01	0.06 ± 0.01
Salivary gland (L)	g%	0.22 ± 0.00	0.15 ± 0.00	0.14 ± 0.01	0.13 ± 0.01
(R)	g%	0.23 ± 0.00	0.15 ± 0.00	0.14 ± 0.01	0.13 ± 0.01

Values are mean ± S.E.
飼料: 5L3R(PMI Nutrition International)

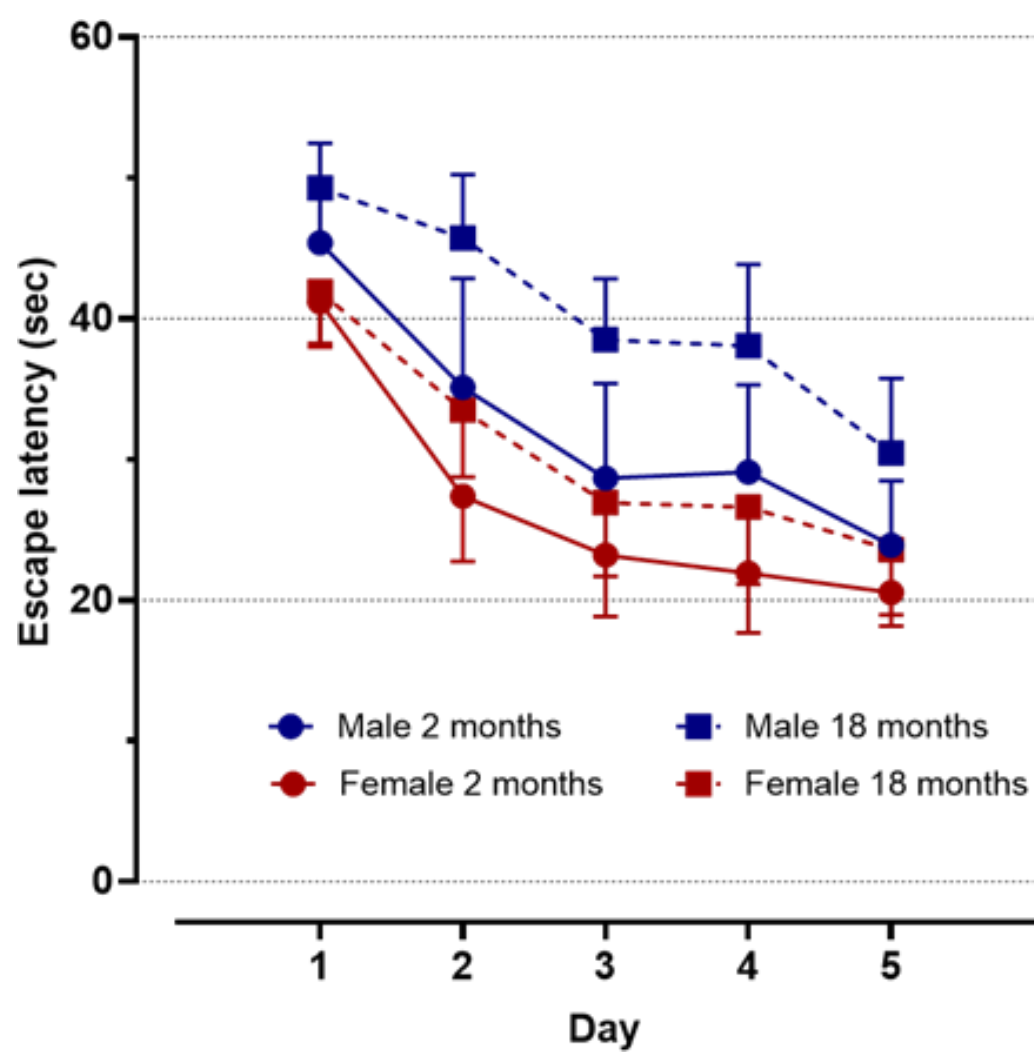
運動機能



Values are mean $\pm$ S.E.
飼料: 5L3R(PMI Nutrition International)

為了調查隨年齡變化的運動功能，對2個月齡與18個月齡的雌雄小鼠進行轉棒試驗(rotarod test)雌雄小鼠皆顯示，相較於2個月齡，18個月齡的運動持續時間出現統計學上顯著下降。

認知機能



Values are mean $\pm$ S.E.
飼料: 5L3R(PMI Nutrition International)

為了調查隨年齡變化的認知功能，對2個月齡與18個月齡的雌雄小鼠進行莫里斯水迷宮試驗(Morris water maze)。雌雄小鼠皆顯示，18個月齡相較於2個月齡，空間學習時間有延長趨勢。

免疫不全老鼠一覽

品系	變異類型	背景系統	被毛	T細胞	B細胞	NK細胞	補体
BALB/cSlc- <i>nu</i> / <i>nu</i>	自然變異	BALB/ c	—	—	+	+	+
KSN/Slc	自然變異	DDD/1	—	—	+	+	+
C. B-17/IcrHsd- <i>Prkdc</i> <i>scid</i>	自然變異	C. B-17	+	—	—	+	+
BRJ (BALB/c <i>Rag-2</i> ^{-/-} <i>Jak3</i> ^{-/-})	基因改造	BALB/ c	+	—	—	—	+

高度免疫缺陷小鼠：BRJ小鼠 (BALB/c Rag-2^{-/-}Jak3^{-/-})

- 特色^{1), 2)}
- Rag-2 與 Jak3 基因雙敲除
 - 雖為高度免疫缺陷，但體質強健、具高抗壓性，並對藥物與放射線具有較高耐受性
 - 可進行人類正常細胞與腫瘤細胞的植入與存活
 - 最適用於 PDX(病人來源腫瘤異種移植) 模型建立

毛色
白化型(Albino)

來源
2023年自熊本大學引進(由熊本大學岡田誠治教授開發)
※由 Setsurotech 公司委託生產與銷售物



1) Ono et al. J Biomed Biotechnol. 2011. 539748.
2) Panaampon et al. Cancer Immunol Immunother. 2022. 71:1017-1031.

造腫瘍性試験

使用 6-8 週齡 BRJ 小鼠, 並以同齡 BALB/c nu/nu 與 CB-17 SCID 小鼠作為對照進行造腫瘤性試験
移植 HeLa 細胞亞株 HeLa S3 細胞
移植後第84天評估腫瘤形成使用 6-8 週齡 BRJ 小鼠, 並以同齡 BALB/c nu/nu 與 CB-17 SCID 小鼠作為對照進行造腫瘤性試験
移植 HeLa 細胞亞株 HeLa S3 細胞
移植後第84天評估腫瘤形成た。

Cell dose (cells/head)	Sex	Number of mice with tumores (% engraftment)		
		BALB/c-nu /nu	SCID	BRJ
1 × 10 ²	Male	NT	NT	0/4 (0%)
	Female	NT	NT	0/6 (0%)
	Total	NT	NT	0/10 (0%)
1 × 10 ³	Male	0/10 (0%)	0/5 (0%)	2/4 (50%)
	Female	NT	0/5 (0%)	2/6 (33%)
	Total	0/10 (0%)	0/10 (0%)	4/10 (40%)
1 × 10 ⁴	Male	1/10 (10%)	3/5 (60%)	4/4 (100%)
	Female	NT	1/5 (20%)	5/6 (83%)
	Total	1/10 (10%)	4/10 (40%)	9/10 (90%)
1 × 10 ⁵	Male	10/10 (100%)	5/5 (100%)	NT
	Female	NT	5/5 (100%)	NT
	Total	10/10 (100%)	10/10 (100%)	NT

NT: not tested.

KSN/Slc小鼠

KSN 小鼠由須藤等人將 BALB/c 裸鼠來源的 nu 基因導入 DDD/1 近交系小鼠所建立之免疫缺陷裸鼠。

一般而言，免疫缺陷小鼠相較正常小鼠體型較小且較虛弱因免疫能力低下，操作需於 SPF 等級屏障設施進行

與其他免疫缺陷小鼠相比，KSN 小鼠較為強健，在一般 (conventional) 設施中亦可短期飼養

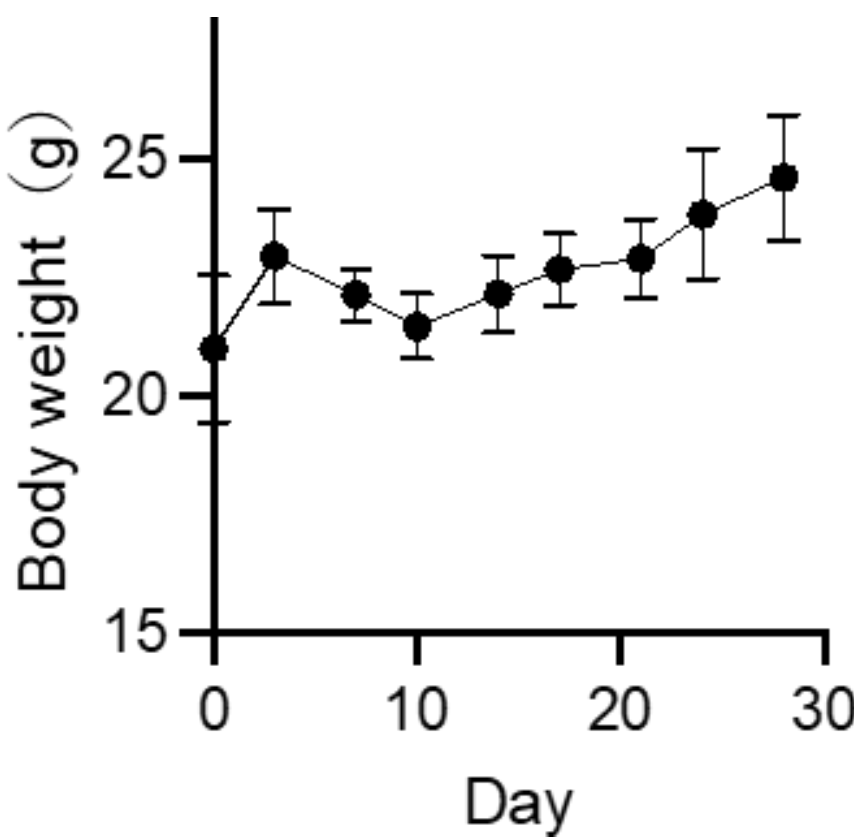
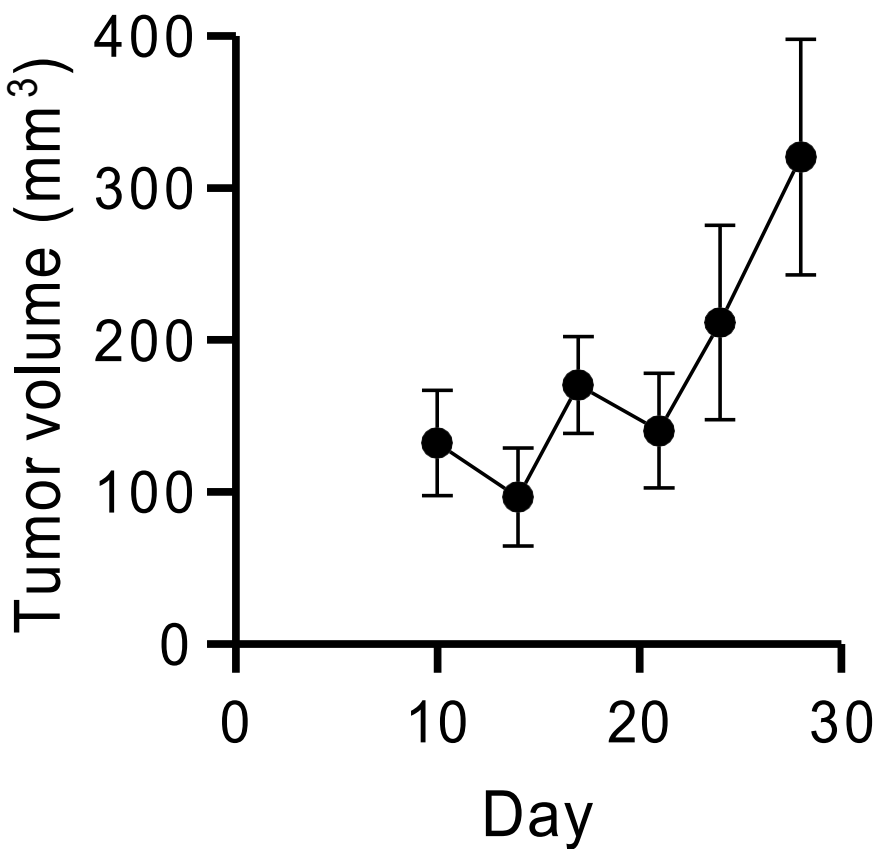
不受設備限制即可建立腫瘤移植模型

乳腺發育良好，可用於乳癌原位移植模型

缺乏 T 細胞免疫功能，因此可用於腫瘤免疫評估。

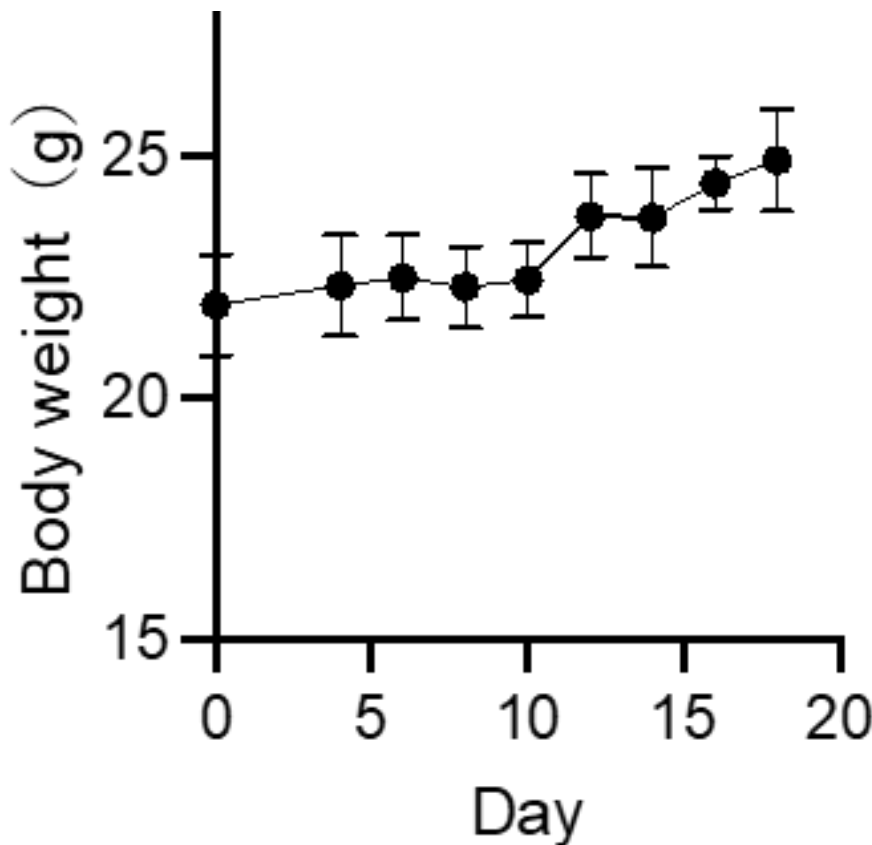
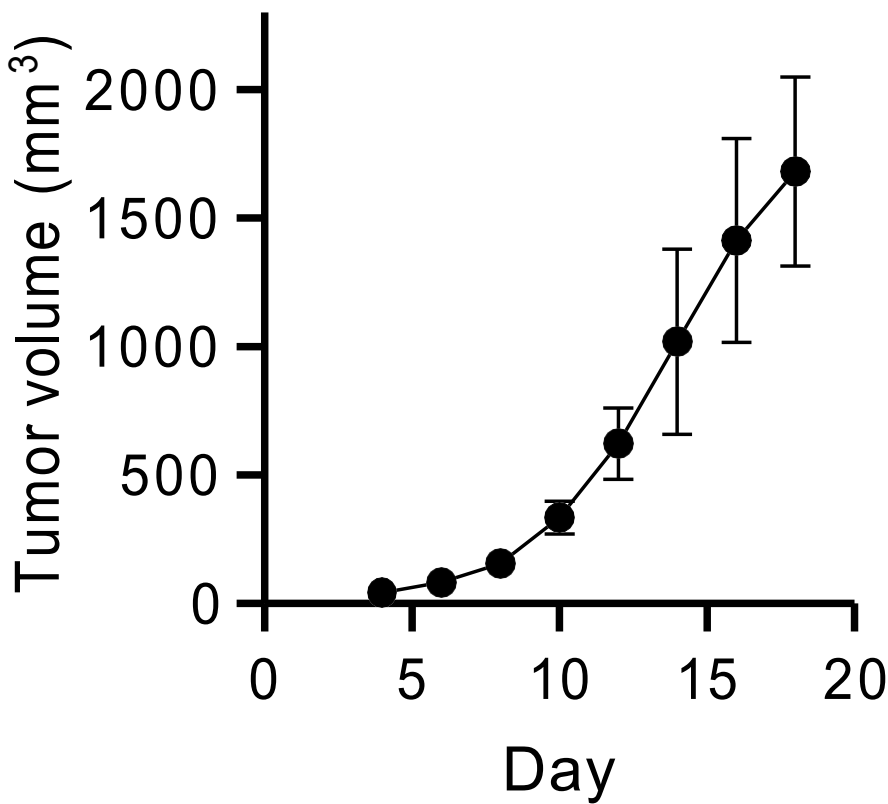


A549



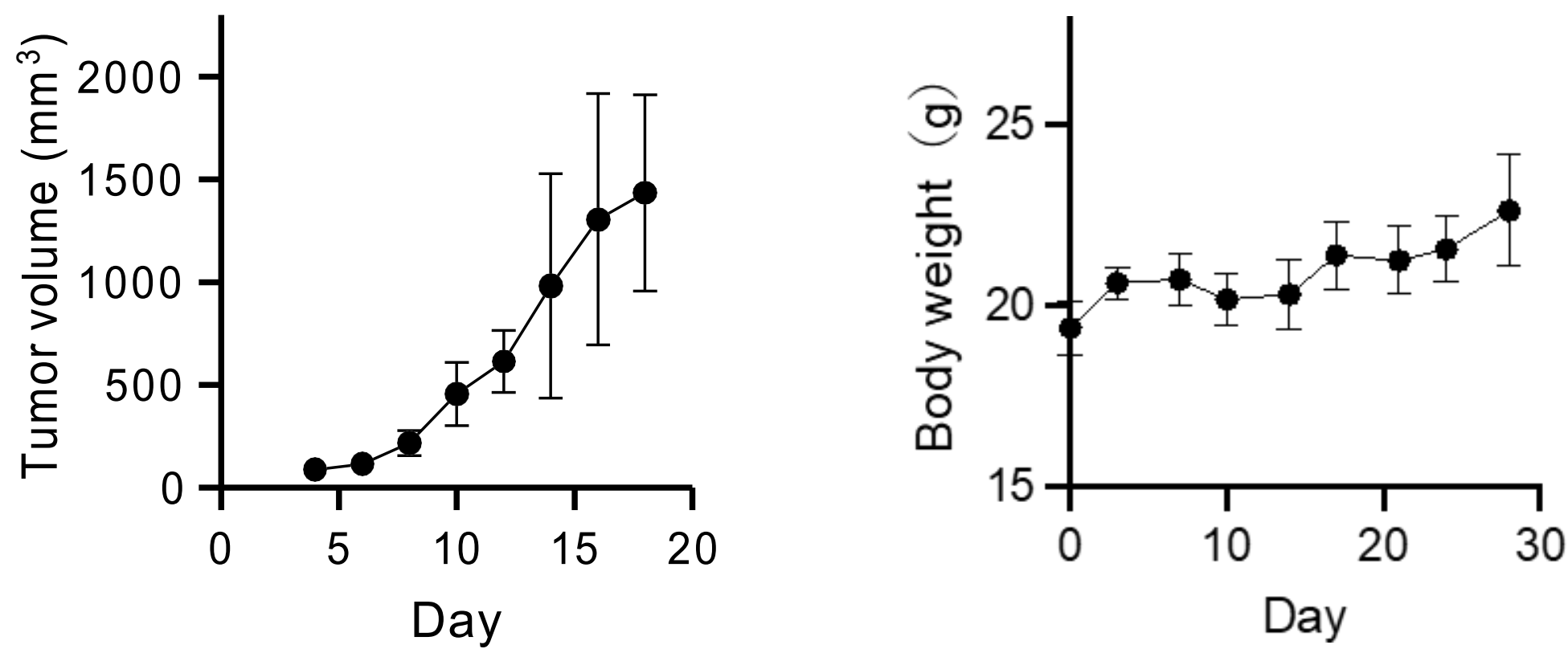
實驗例1. 將人類肺癌 A549 細胞 (5×10^4) 懸浮於含 50% Matrigel 的無血清 DMEM 培養液中，並皮下注射至背部。

E0771



實驗例2. 將小鼠乳癌 E0771 細胞 (1×10^4) 懸浮於含 Matrigel 無血清培養液中，移植至乳腺。

B16F10



實驗例3. 將小鼠惡性黑色素瘤 B16F10 細胞 (5×10^x) 懸浮於含 50% Matrigel 的無血清 RPMI1640 培養液中，並皮下注射至背部。

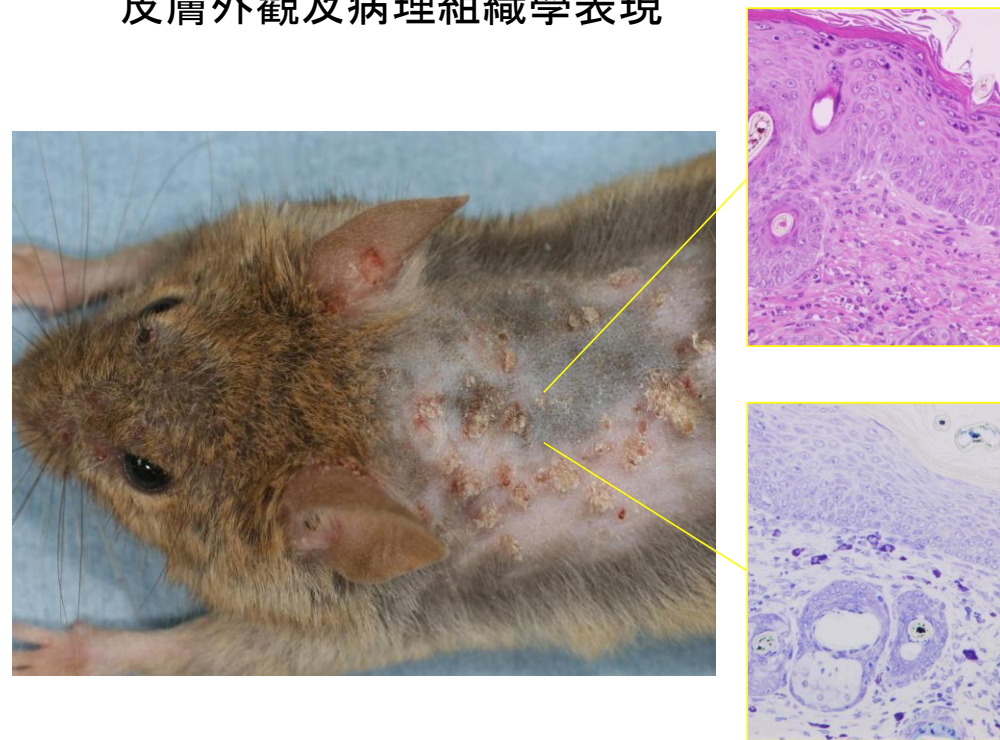
データ提供: 麻布大学 獣医学部生化学研究室 永根先生

■ 使用 NC/Nga 小鼠建立之自然發生異位性皮膚炎模型

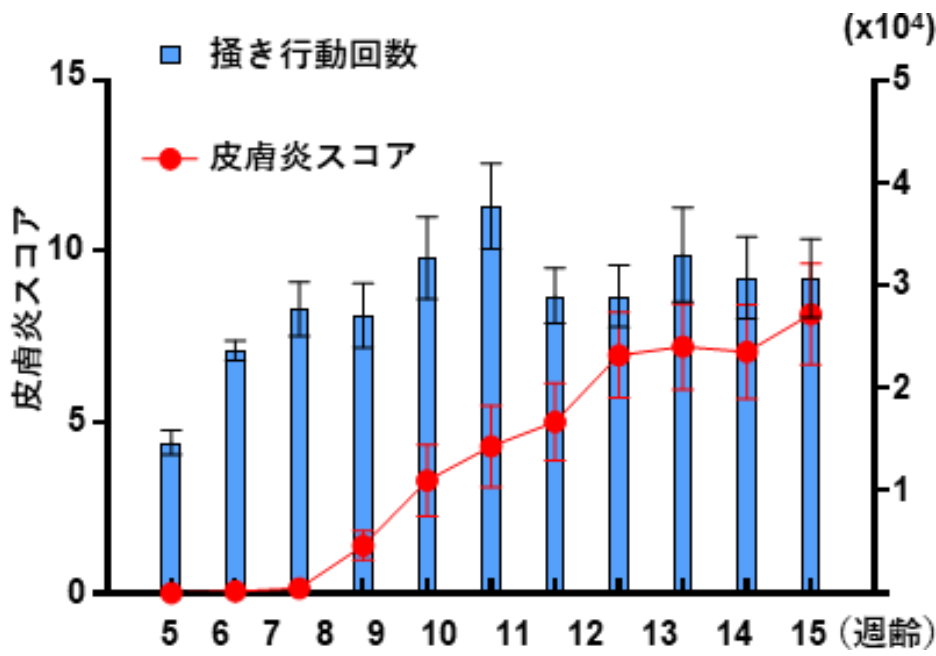
異位性皮膚炎是一種伴隨劇烈搔癢的發炎性皮膚疾病，屬於反覆惡化與緩解的慢性疾病。異位性皮膚炎除了異位性體質外，皮膚屏障功能異常、刺激物接觸、過敏原暴露、皮膚感染、精神壓力、飲食及飲酒等多種因素共同參與病程形成。針對定殖有小鼠毛蟎 (Myobia musculi) 的 NC/Nga 小鼠，評估其疾病表現及藥效。

基礎病理特徵

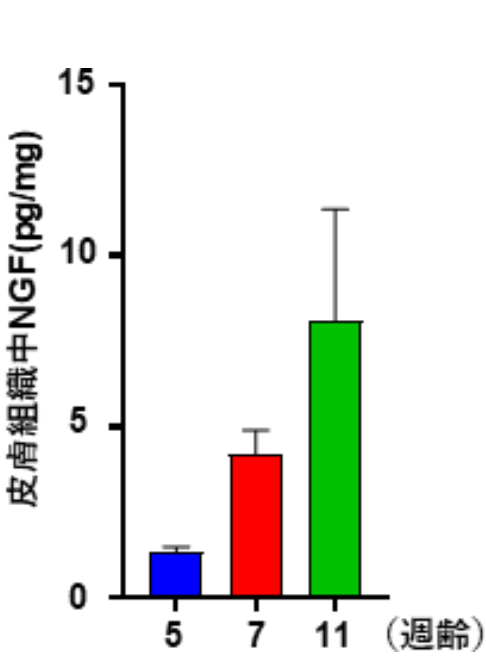
皮膚外觀及病理組織學表現



皮膚炎評分



皮膚中 NGF (神經生長因子)

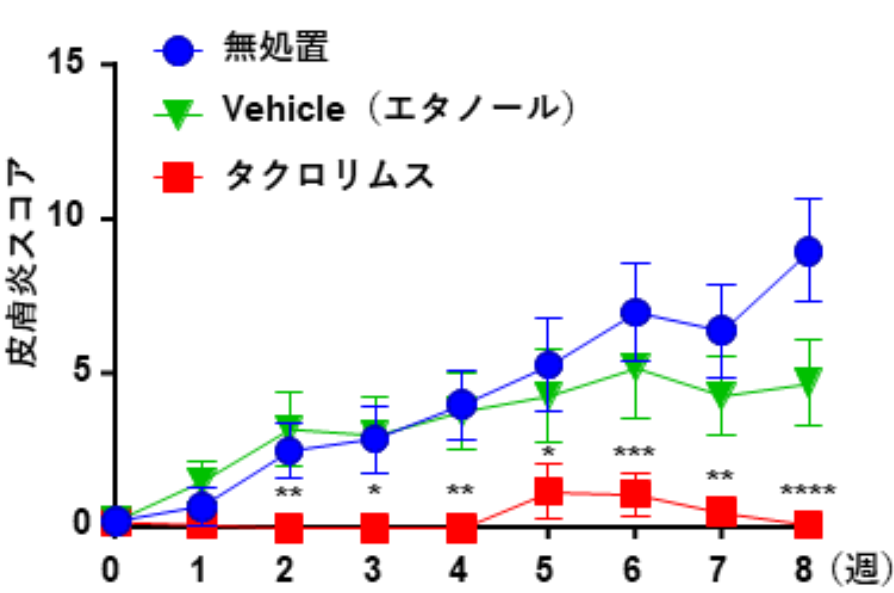


約自 6~7 週齡開始，耳部、臉部及背部出現伴隨搔癢的皮膚炎。隨著皮膚炎惡化，血清總 IgE 濃度、搔抓行為次數及經皮水分散失量均會增加。病灶皮膚可見表皮增厚、嗜酸性球浸潤、肥大細胞增加等病理變化，同時也可觀察到與搔癢神經纖維延伸相關的神經生長因子 (NGF) 增加。。

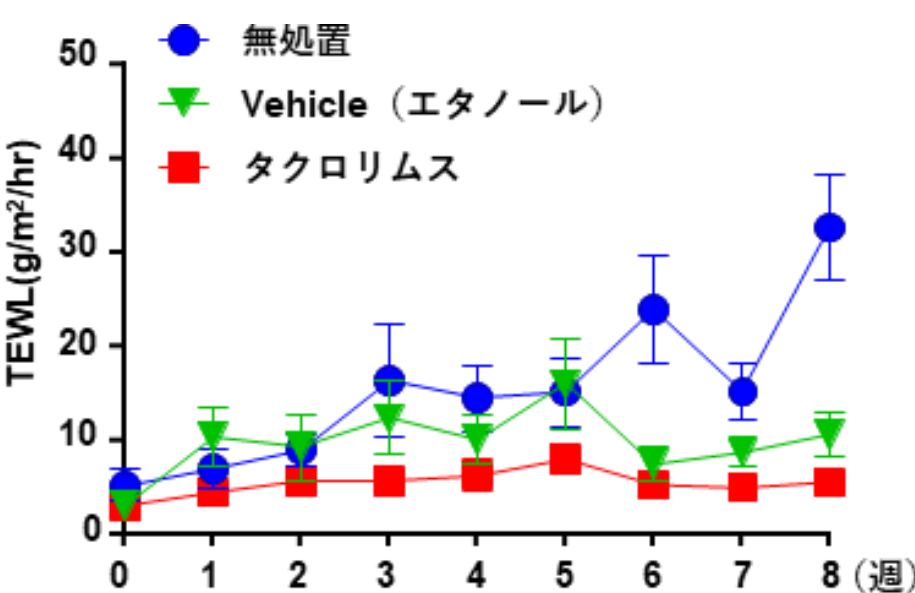
預防效果

對定殖有小鼠毛蟎的 NC/Nga 小鼠每日塗抹一次 0.1% Tacrolimus，測定皮膚炎評分、搔抓行為次數及經皮水分散失量 (TEWL)，評估其對皮膚症狀發生的預防效果。

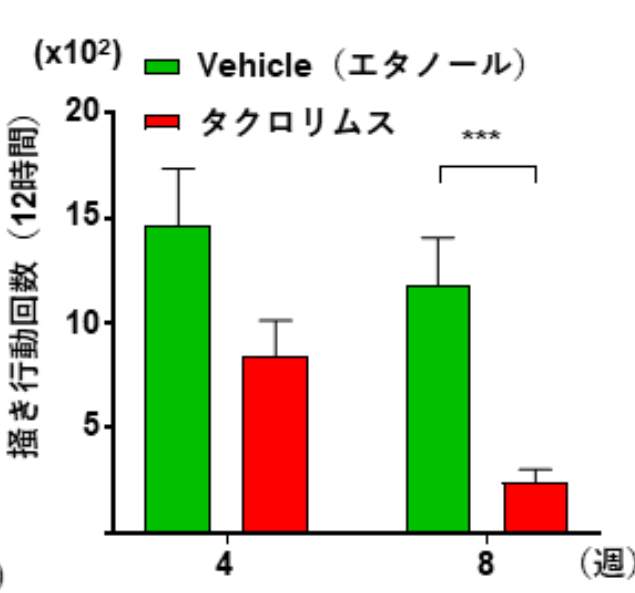
皮膚症狀的時間變化



經皮水分散失量 (TEWL) 的時間變化



搔抓行為的時間變化



止癢藥效評估

已知異位性皮膚炎患者因搔癢而產生的搔抓行為會使症狀惡化，因此抑制搔癢是治療異位性皮膚炎的重要策略。作為止癢藥效評估，使用自然發生異位性皮膚炎的 NC/Nga 小鼠模型，評估 κ 型鴉片受體致效劑 Nalfurafine 單次皮下注射對抑制搔抓行為的效果。

