

General Test Conditions

Hematological and blood biochemical examinations were conducted under the following conditions unless otherwise specified.

Hematological Examination

- **Fasting:** Approximately 16 hours
- **Anesthesia:** Isoflurane inhalation anesthesia
- **Blood Sampling Site:** Posterior vena cava (mice, hamsters), Abdominal aorta (rats, guinea pigs)
- **Specimen:** Blood (with Anglot/ET: Alfresa Pharma added)
- **Measuring Instrument:** Automated hematology analyzer (ADVIA2120: Siemens Healthcare Diagnostics K.K.)

Examination Items

WBC	:	White blood cell count
RBC	:	Red blood cell count
HGB	:	Hemoglobin concentration
HCT	:	Hematocrit value
MCV	:	Mean corpuscular volume
MCH	:	Mean corpuscular hemoglobin
MCHC	:	Mean corpuscular hemoglobin concentration
PLT	:	Platelet count

Blood Biochemical Examination

- **Fasting:** Approximately 16 hours
- **Anesthesia:** Isoflurane inhalation anesthesia
- **Blood Sampling Site:** Posterior vena cava (mice, hamsters), Abdominal aorta (rats, guinea pigs)
- **Specimen:** Serum (stored at −80° C)
- **Measuring Instrument:** Automated analyzer (7180: Hitachi High-Tech Corporation)

[Examination Items & Methods]

Examination Items		Methods
AST	: Aspartate aminotransferase	JSCC transferable method
ALT	: Alanine aminotransferase	JSCC transferable method
ALP	: Alkaline phosphatase	IFCC transferable method
ALB	: Albumin	BCG method
TP	: Total protein	Biuret法
A/G	: Albumin/Globulin ratio	Calculated value: ALB / (TP – ALB)
GLU	: Glucose	HK・G-6-PDH法 Hexokinase UV法 ¹⁾
T-BIL	: Total bilirubin	Enzymatic method
T-CHO	: Total cholesterol	Enzymatic method
TG	: Triglyceride	Enzymatic method, Enzymatic UV method ²⁾
PL	: Phospholipid	Enzymatic method
Ca	: Calcium	OCPC法, CPZ-Ⅲmethod ³⁾
IP	: Inorganic phosphorus	Modified Fiske-Subbarow method
BUN	: Urea nitrogen	Urease LED avoidance method
CRE	: Creatinine	Enzymatic method
Na	: Sodium	on-selective electrode method
K	: Potassium	on-selective electrode method
Cl	: Chloride	on-selective electrode method

1), 2) Adopted for inbred mice and rats

3) Adopted for Slc: Hartley

In collecting these data, the following laws, standards, and guidelines were strictly complied with, and the procedures were implemented in accordance with the “Japan SLC, Inc. Experimental Animal Welfare Regulations”:

- Act on Welfare and Management of Animals (Act No. 105 of October 1, 1973, as amended by Act No. 39 of June 19, 2019)
- Standards Relating to the Care and Keeping and Reducing Pain of Laboratory Animals (Ministry of the Environment Notification No. 84, August 30, 2013)
- “Guidelines for Animal Euthanasia” (Revised: Notice No. 105 of November 12, 2007, Ministry of the Environment)
- “Guidelines for Proper Conduct of Animal Experiments” (June 1, 2006, Science Council of Japan)

Strain: Slc:ddY

Characteristics

- Excellent growth and reproductive performance.

Applications

Widely used in a broad range of general research applications.

- Vaccine testing
- Toxicity assessment



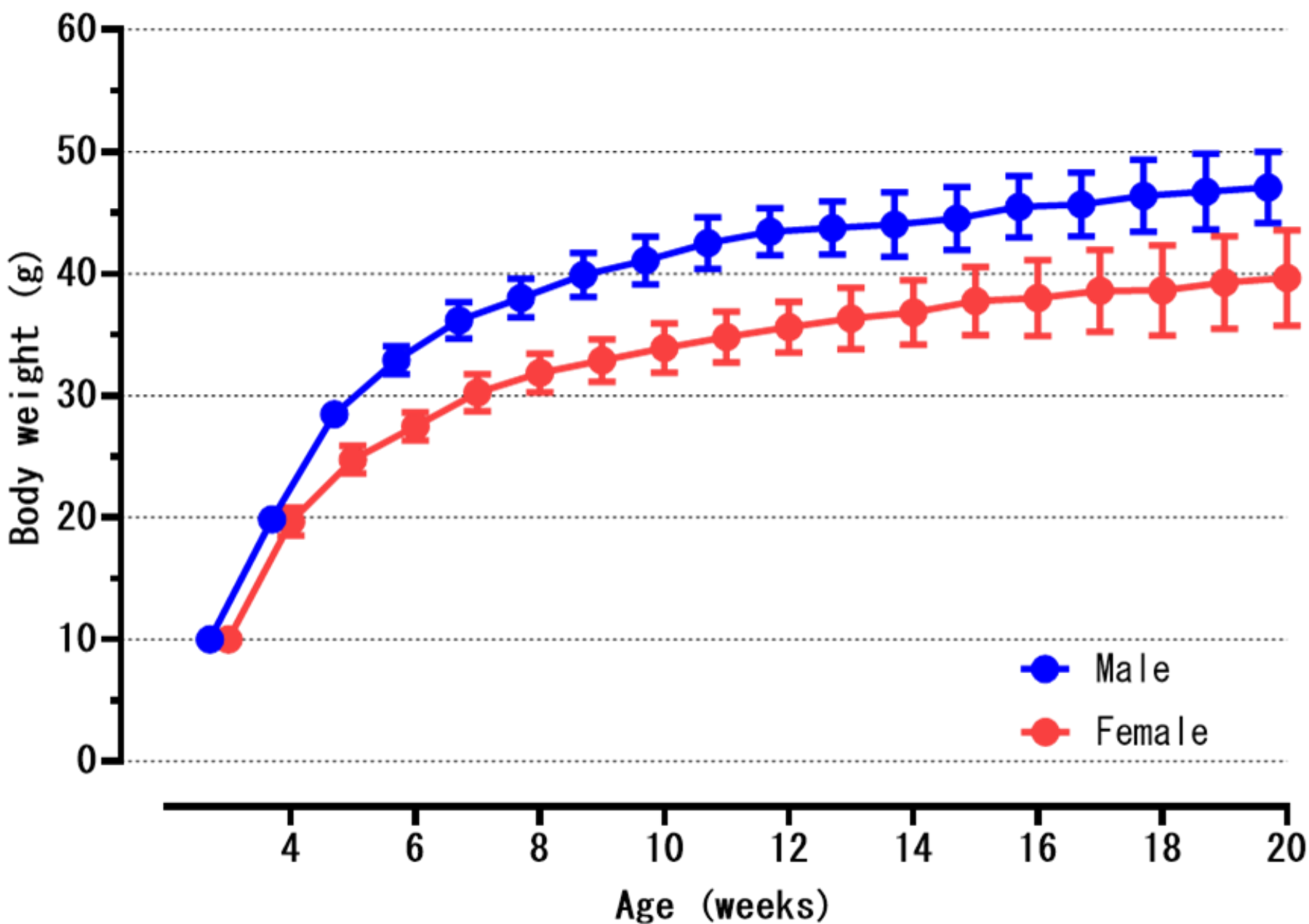
Coat color

Albino

Origin

Introduced in 1963 from the National Institute of Preventive Health (currently the [National Institute of Infectious Diseases, Japan Institute for Health Security](#)).

■ Body Weight Curve



	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

飼料: ラボM-A2(日本農産工業)

Hematology

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)

Clinical Chemistry

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)

■ Organ Weights

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)

Strain: Slc:ICR

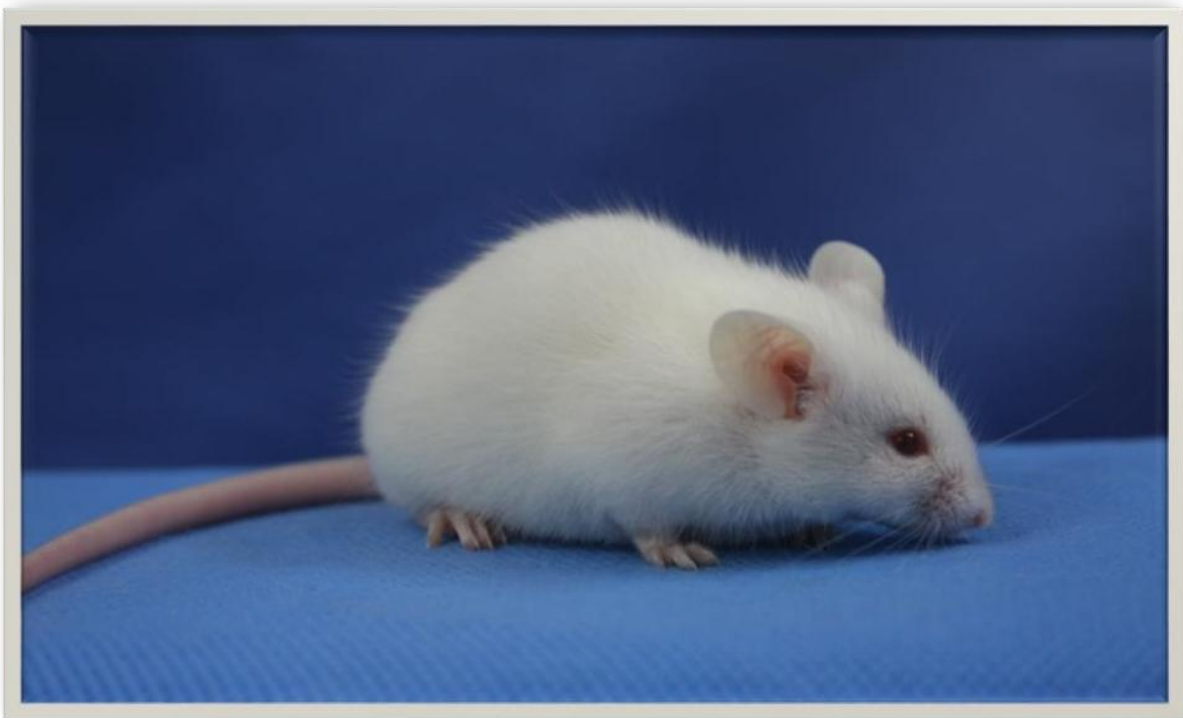
Characteristics

- Relatively large body size with excellent growth performance.
- Docile and easy to handle.
- Excellent reproductive performance.

Applications

Widely used in a broad range of general research applications.

- Safety studies
- Toxicity assessment ^{1), 2)}
- Pharmacological efficacy studies ^{3), 4)}
- Immunological studies
- Generation of pregnant animals

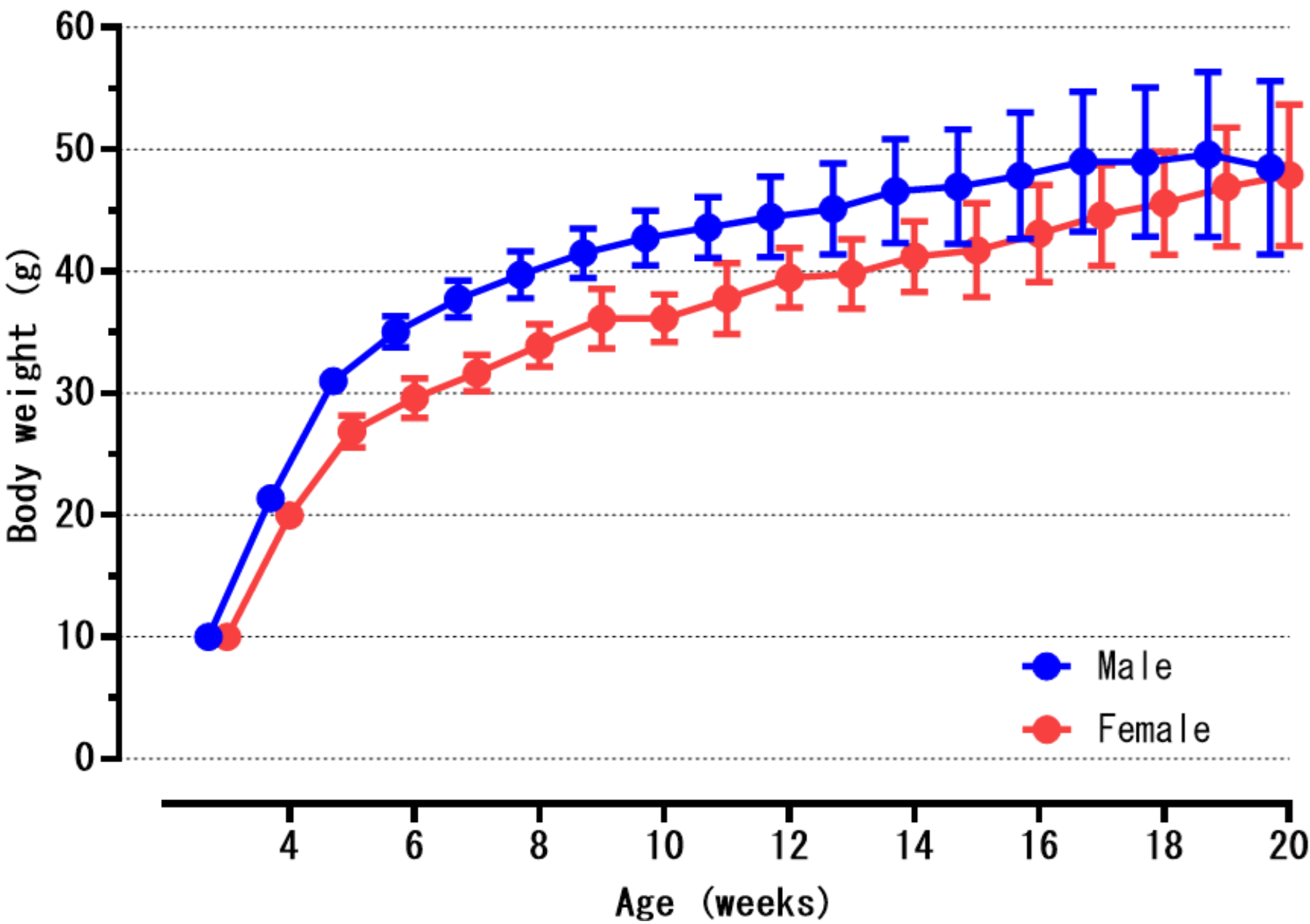


1) Nakajima et al. Food Chem Toxicol. 2020. 136:111046.
2) Yamaguchi et al. Toxins (Basel). 2025. 17:318.
3) Yasuda et al. J Pharmacol Sci. 2025. 158:368–372.
4) Akiyama et al. Sci Rep. 2022. 12:11385.

Coat color
Albino

Origin
Introduced in 1965 from Charles River Laboratories (USA). Originated from albino Swiss mice.

Body Weight Curve



		Age (weeks)																	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Male (n=20)	Mean (g)	10.0	21.4	31.0	35.0	37.7	39.7	41.5	42.7	43.6	44.5	45.1	46.6	47.0	47.8	49.0	49.0	49.6	48.5
	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)	10.0	20.0	26.9	29.6	31.7	33.9	36.1	36.2	37.8	39.5	39.8	41.2	41.7	43.1	44.6	45.6	46.9	47.9
	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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: BALB/cCrSlc

Characteristics

- Relatively large reticuloendothelial system (RES) organs in proportion to body weight.
- Highly sensitive to X-ray irradiation.
- High incidence of cardiac calcification with aging ¹⁾
- Male mice tend to exhibit aggressive behavior toward each other from a relatively young age.
- Exhibits a strong Th2-type immune response ²⁾

Applications

- Immunology ³⁾
- Allergy research (e.g., asthma, dermatitis) ^{4), 5), 6)}
- Monoclonal antibody production, etc.

Coat color

Albino (AAbbccDD)

H-2 Haplotype

H2^d

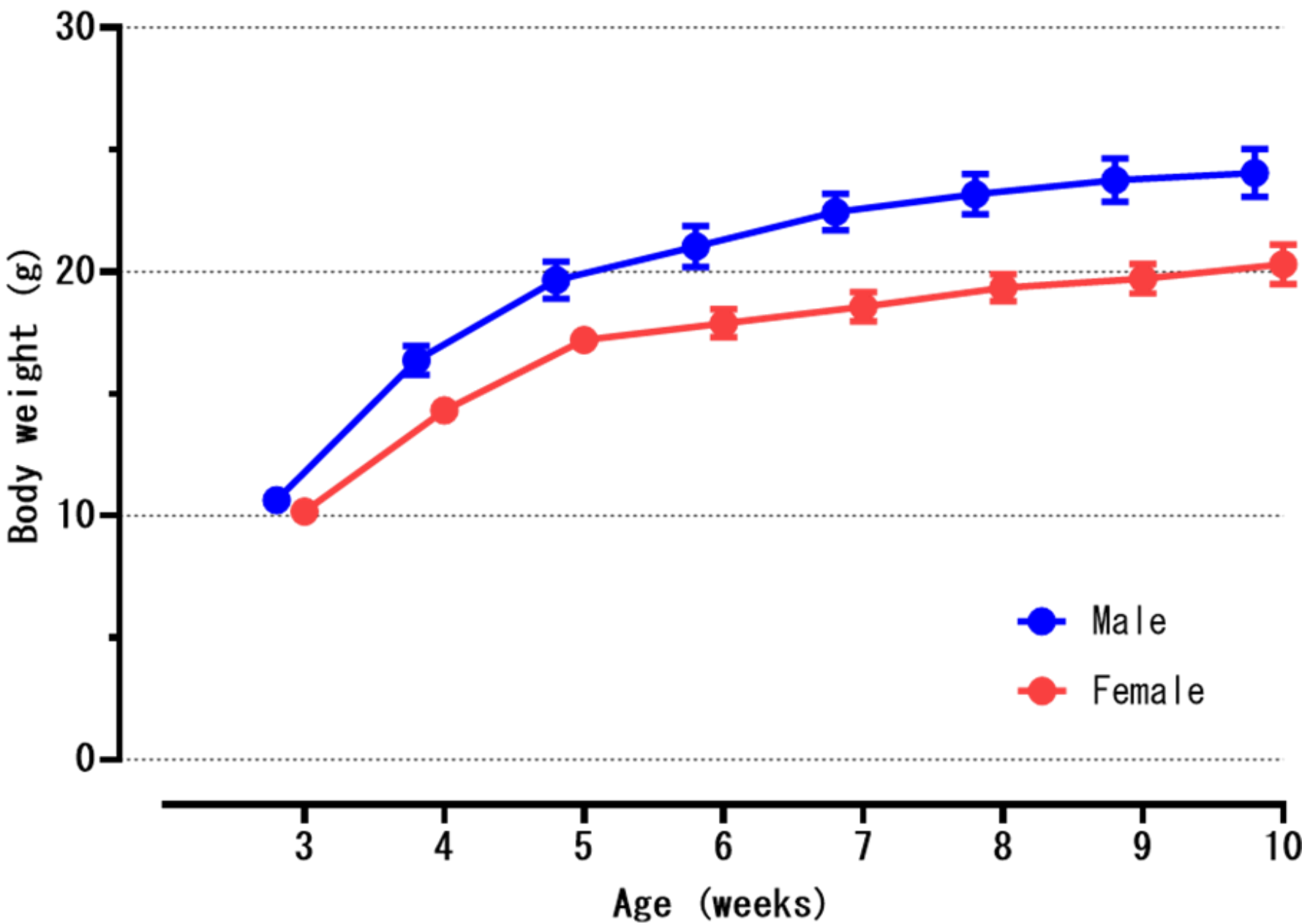
Origin

Introduced in 1975 from the Institute of Medical Science, The University of Tokyo.



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.

■ Body Weight Curve



		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

Inbred Mice

BALB/cCrSlc

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: C3H/HeSlc

Characteristics

- Stable hair growth cycle.
- Genetically predisposed to retinal abnormalities.
- Sensitive to lipopolysaccharide (LPS).
- High spontaneous incidence of hepatocellular carcinoma in males.

Applications

- Immunology and cancer research.
- Hair growth research 2), 3)

Coat color

Agouti (AABBCCDD)

H-2Haplotype

H2^k

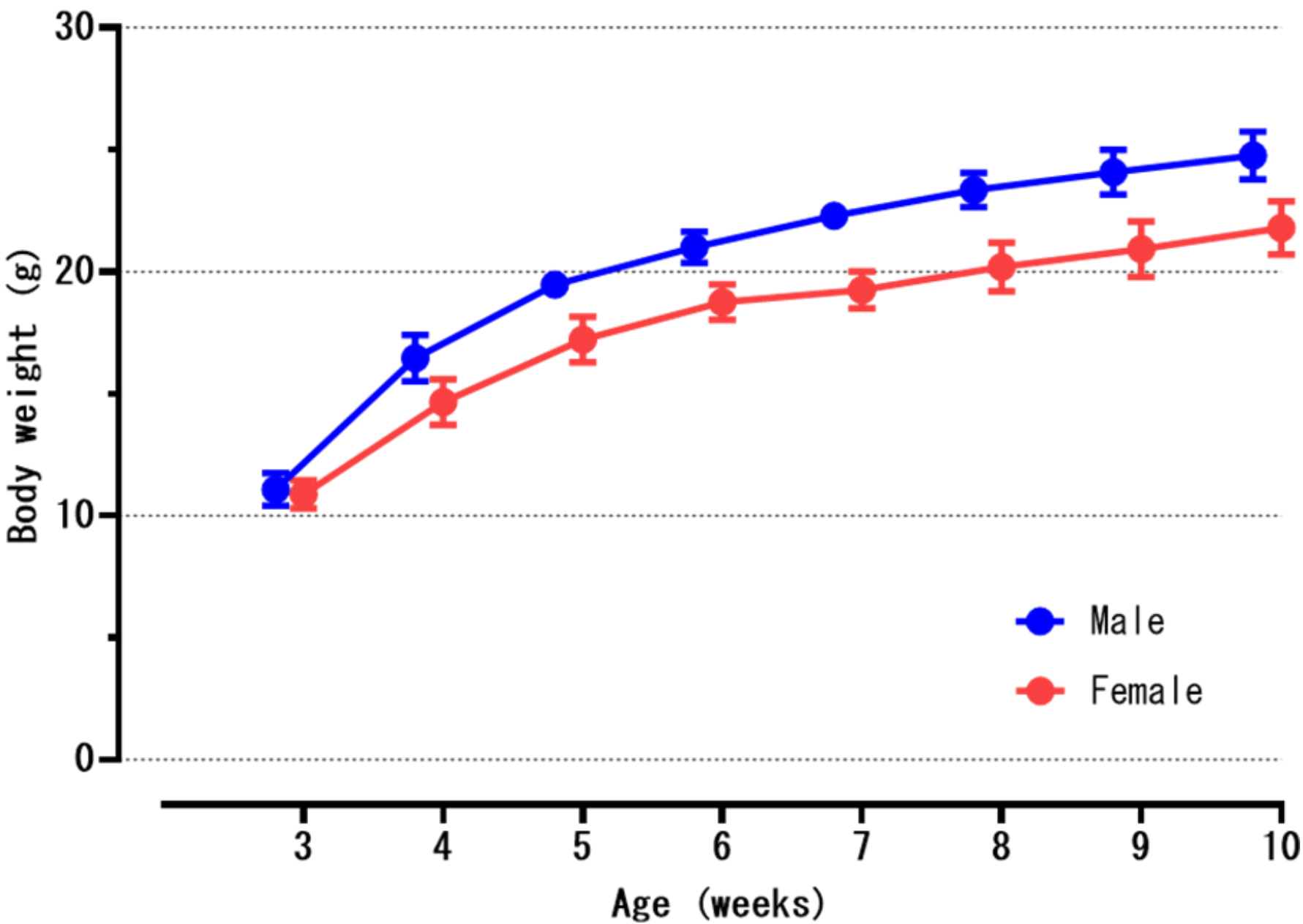
Origin

Introduced in 1975 from the Institute of Medical Science, The University of Tokyo.



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.

■ Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: C3H/HeNSlc

Characteristics

- Stable hair growth cycle.
- Genetically predisposed to retinal abnormalities.
- Sensitive to lipopolysaccharide (LPS).
- High spontaneous incidence of hepatocellular carcinoma in males.

Applications

- Immunology and cancer research.
- Hair growth research 2), 3)

Coat color

Agouti (AABBCCDD)

H-2 Haplotype

H2^k

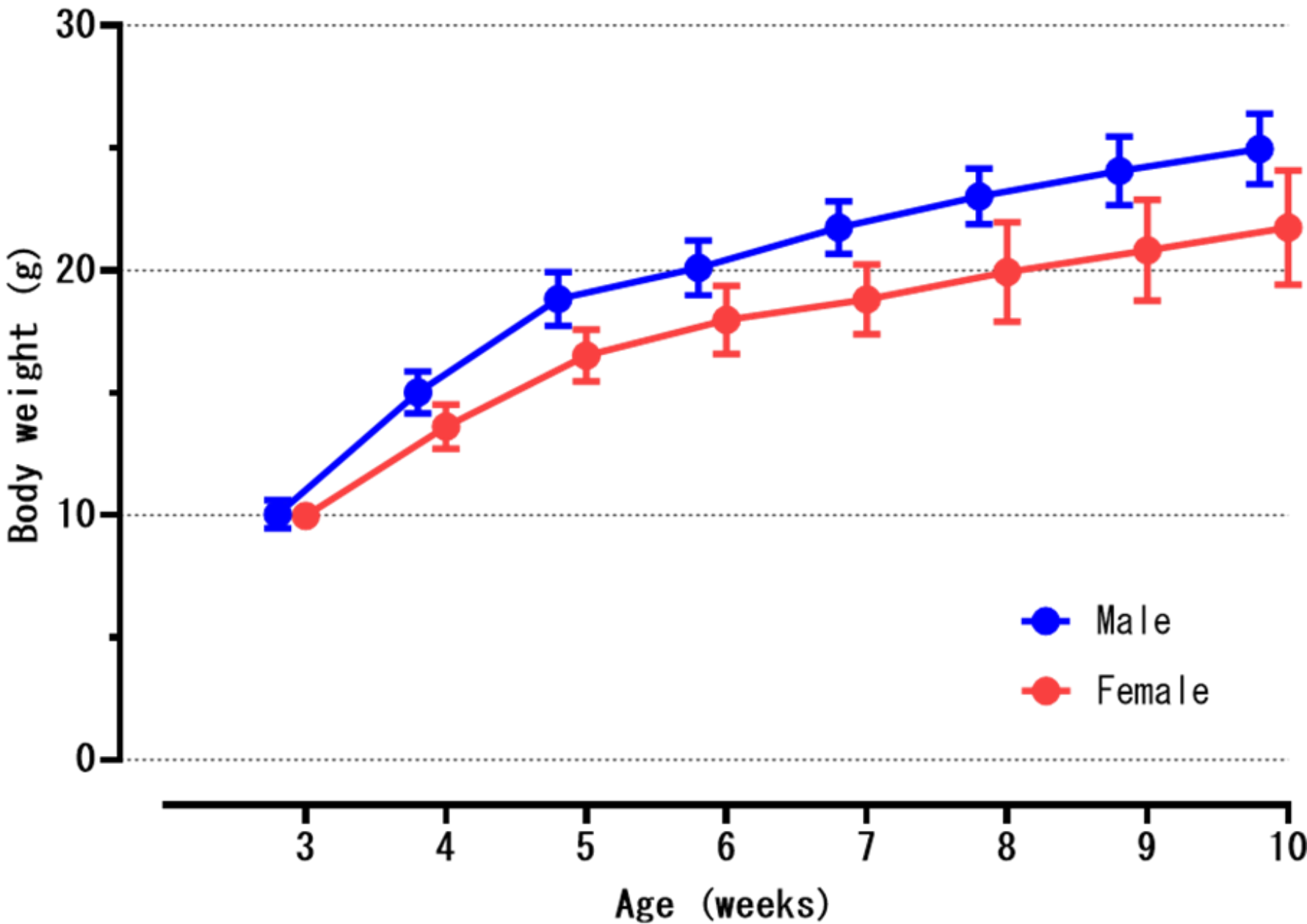
Origin

Introduced in 1985 from the National Institute of Preventive Health (currently the National Institute of Infectious Diseases, Japan Institute for Health Security).



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.

■ Body Weight Curve



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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: C57BL/6NCrSlc

Characteristics

- Cellular immune function shows relatively little decline with aging.
- Low incidence of spontaneous tumors.
- High preference for alcohol.
- Ocular abnormalities (e.g., anophthalmia and ocular malformations) are frequently observed in offspring.
- Prone to hair loss.
- Stable hair growth cycle.¹⁾
- Exhibits a strong Th1-type immune response²⁾

Applications

Widely used in a broad range of general research applications.

- Generation of genetically modified animals.
- Immunology and cancer research.
- Hair growth research.
- Aging research.
- Obesity and diabetes research.

Coat color

Black(aaBBCCDD)

H-2 Haplotype

H2^b

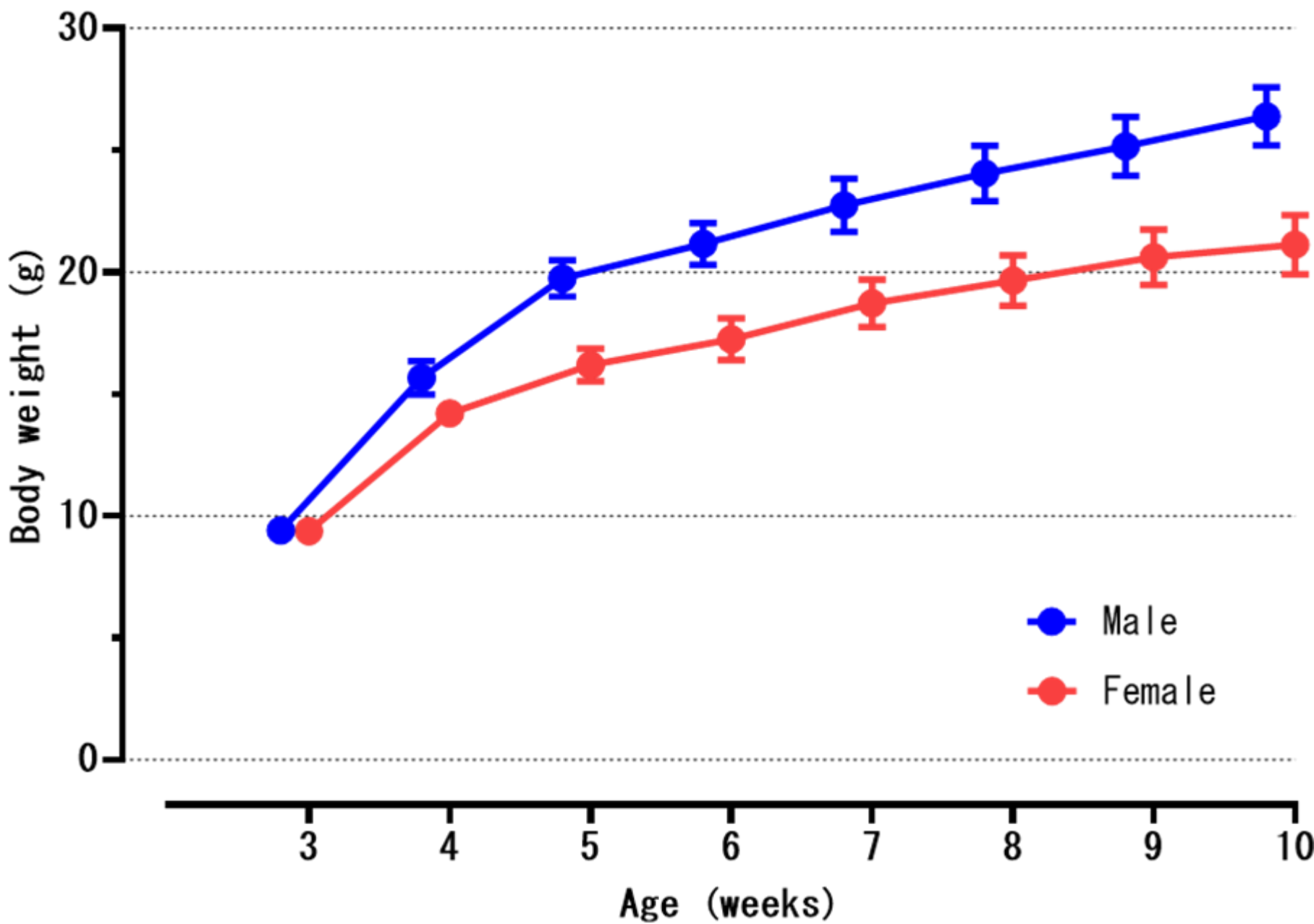


Origin

Introduced in 1975 from the Institute of Medical Science, The University of Tokyo.^{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

Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: C57BL/6JmsSlc

Characteristics

- Cellular immune function shows relatively little decline with aging.
- Low incidence of spontaneous tumors.
- High preference for alcohol.
- Ocular abnormalities (e.g., anophthalmia and ocular malformations) are frequently observed in offspring.
- Prone to hair loss.
- Stable hair growth cycle.¹⁾
- Exhibits a strong Th1-type immune response²⁾

Applications

Widely used in a broad range of general research applications.

- Generation of genetically modified animals.
- Immunology and cancer research.
- Hair growth research.
- Aging research.
- Obesity and diabetes research.

Coat color

Black(aaBBCCDD)

H-2 Haplotype

H2^b

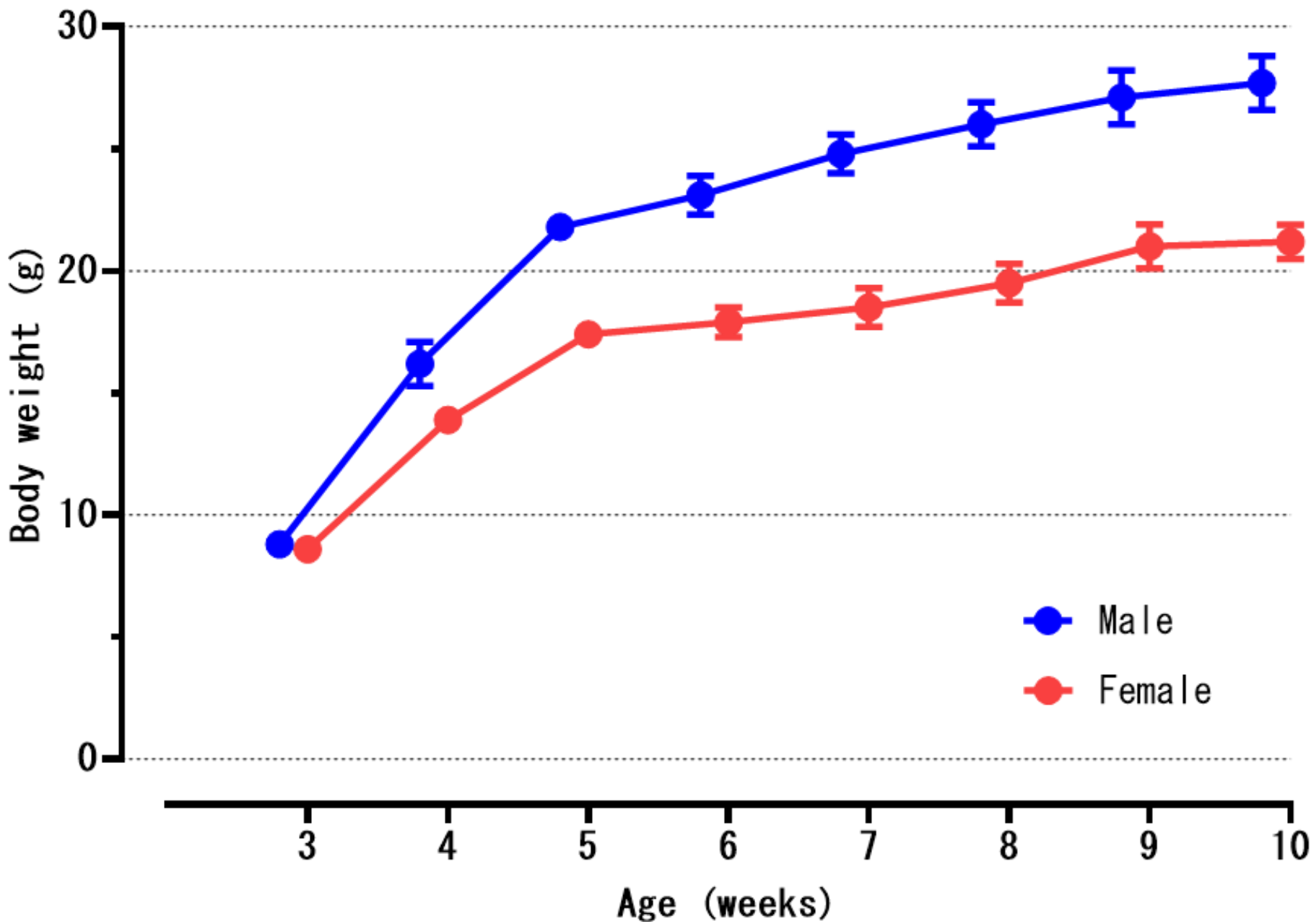


Origin

Introduced in 1975 from the Institute of Medical Science, The University of Tokyo³⁾

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.

■ Body Weight Curve



		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

■ Hematology

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)

■ Clinical Chemistry

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)

■ Organ Weights

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)

Strain: DBA/1JmsSlc

Characteristics

- Low average litter size and poor reproductive efficiency.

Applications

- Drug-induced arthritis model
- Collagen-induced arthritis (CIA) model
- Infection defense and immunology studies
- Experimental model for human rheumatoid arthritis (RA)



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

Coat color

Light chocolate(aabbCCdd)

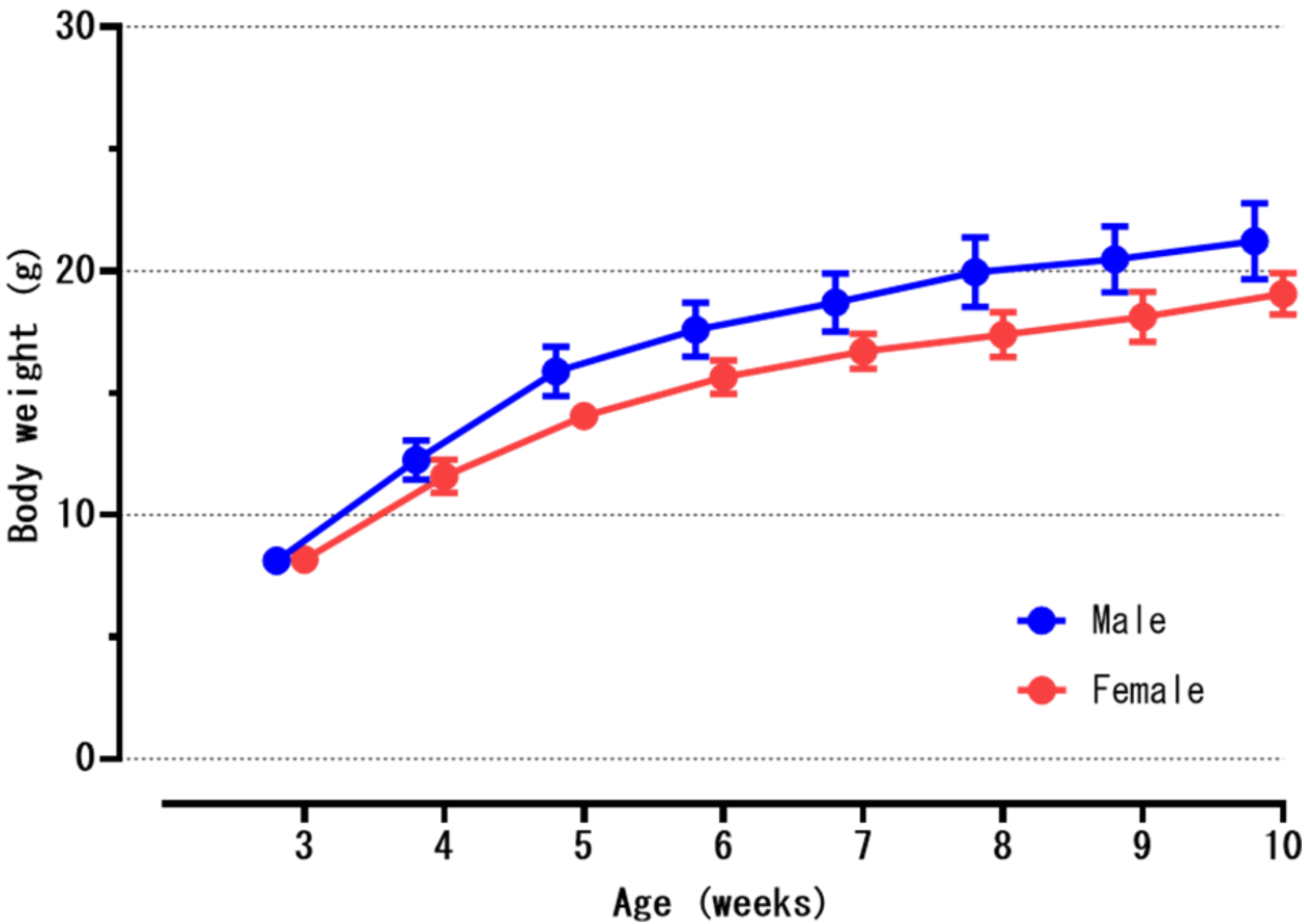
H -2 Haplotype

H2^a

Origin

Introduced in 1997 from the Institute of Medical Science, The University of Tokyo.

Body Weight Curve



		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)

Hematology

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)

Organ Weights

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)

Clinical Chemistry

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)

Strain: DBA/2CrSlc

Characteristics

- Prone to audiogenic seizure at a young age.
- Deficiency of complement component C5'.
- Low average litter size and poor reproductive efficiency.
- Relatively low blood pressure.
- High incidence of cardiac calcification with aging.

Coat color

Light chocolate (aabbCCdd)

H-2 Haplotype

H2^d

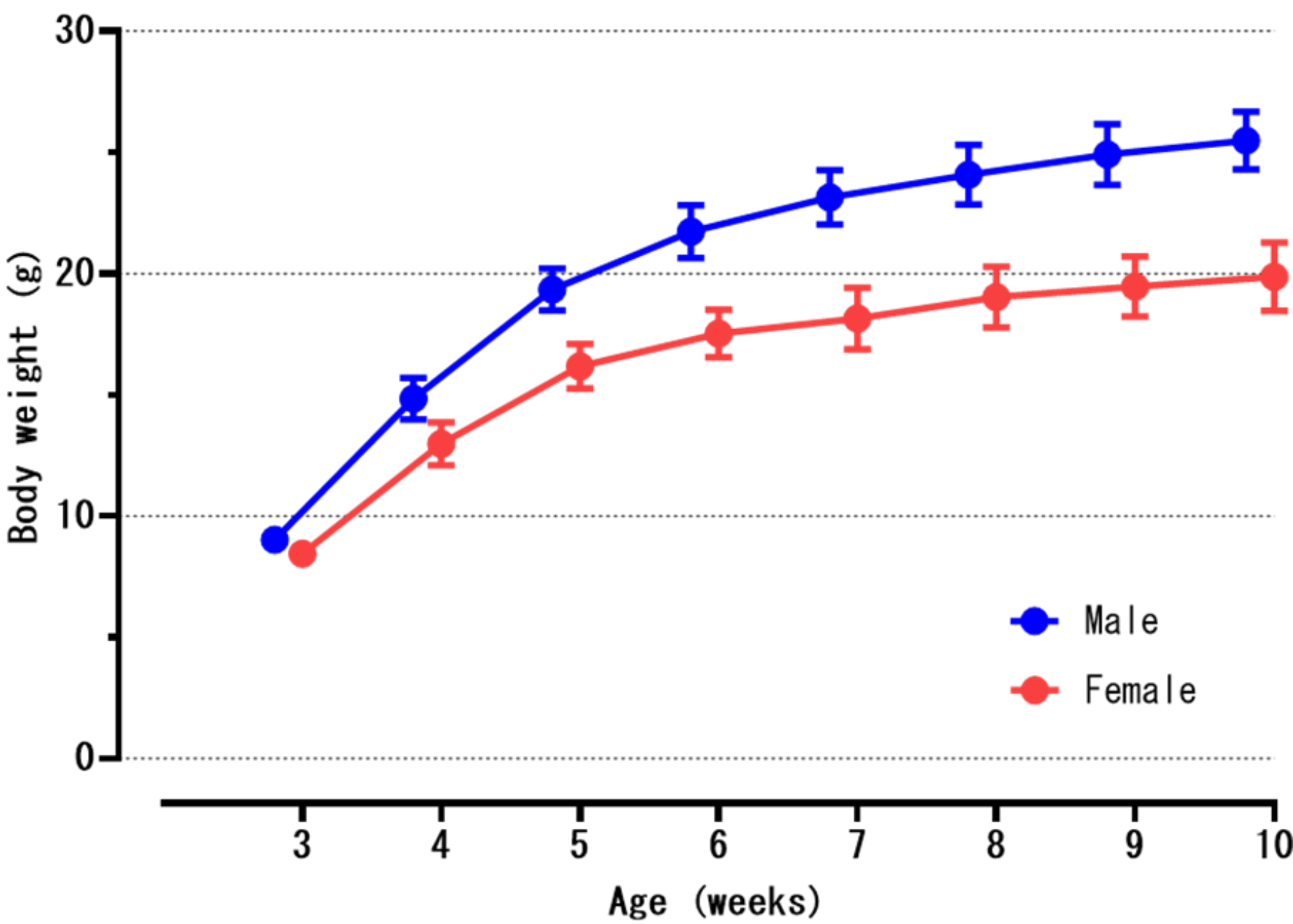
Origin

Introduced in 1975 from the Institute of Medical Science, The University of Tokyo.



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

Body Weight Curve



		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)

Hematology

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	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)

Clinical Chemistry

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	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)

Organ Weights

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	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)

Strain: NC/NgaSlc

Characteristics

Genetically predisposed to dermatitis, which can be induced by environmental factors.
(Does not spontaneously develop dermatitis under SPF conditions.)

Applications

- Drug-induced atopic dermatitis model
- Drug-induced skin inflammation model
- Animals can also be supplied with mite application to induce dermatitis

Coat color

Cinnamon (AAbbCCDD)

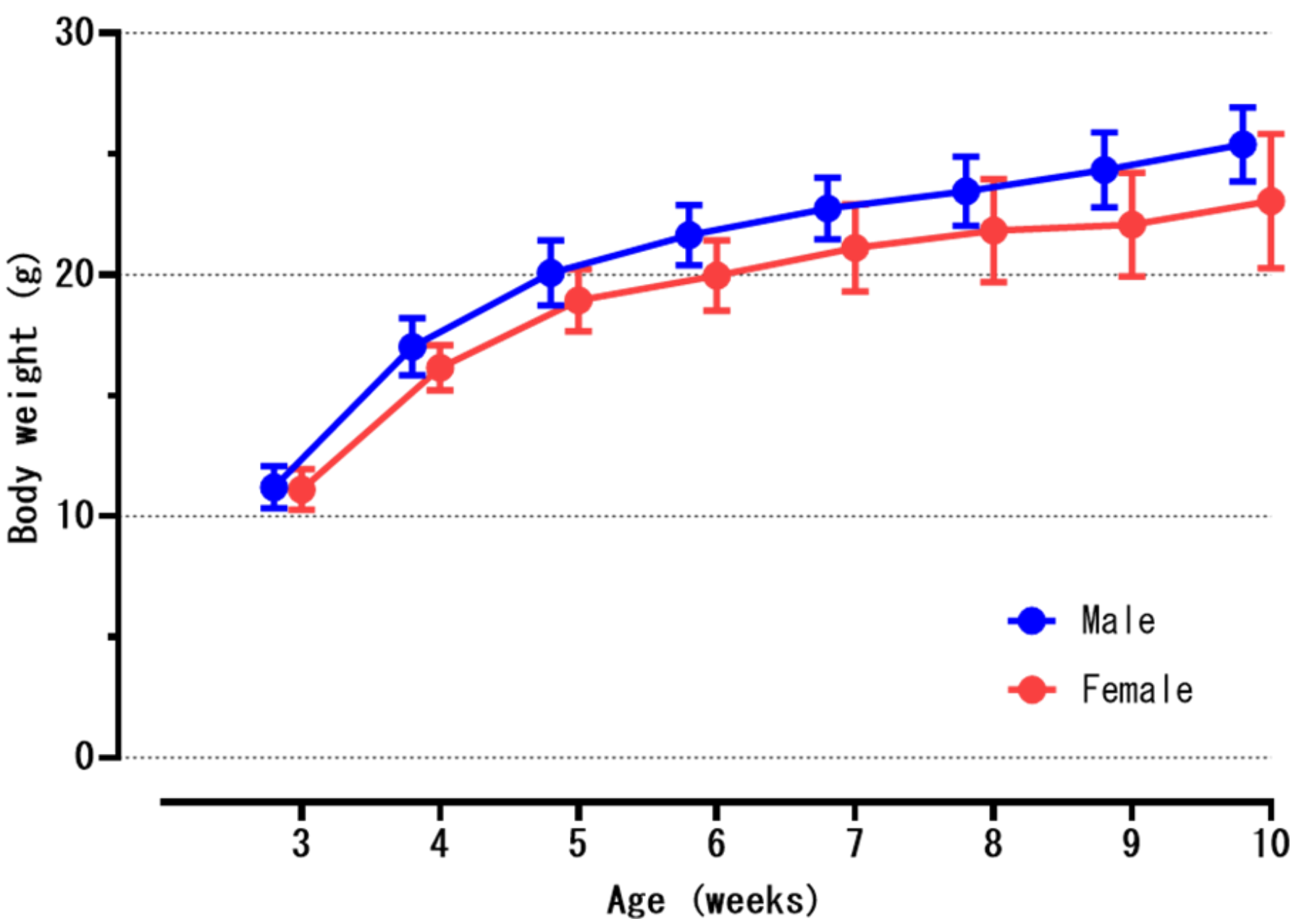
Origin

Introduced in 1997 from the Institute of Medical Science, The Nagoya University.



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

■ Body Weight Curve



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male	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	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)

Hematology

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)

Organ Weights

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)

Clinical Chemistry

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)

Strain: B6D2F1/Slc

(C57BL/6NCrSlc ♀ × DBA/2CrSlc ♂) F1

- Characteristics
- Exhibits hybrid vigor, with strong robustness and high adaptability to environmental conditions.
 - Allows transplantation of skin, tissue, and tumors from both parental strains.

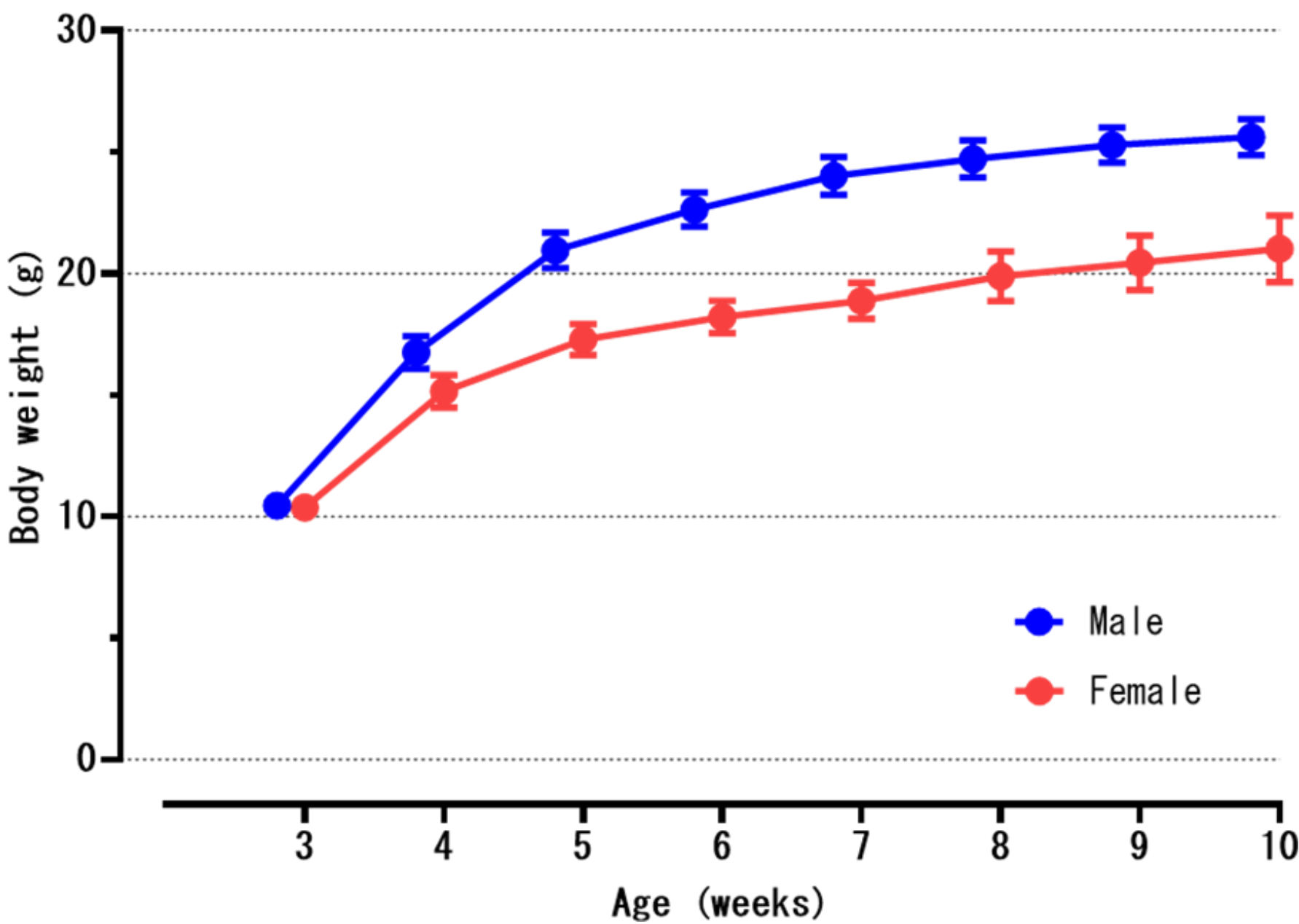
- Applications
- Anticancer drug screening
 - Generation of genetically modified animals

Coat color

Black(aaBbCCDd)



■ Body Weight Curve



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	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 (n=20)	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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: B6C3F1/Slc

(C57BL/6NCrSlc ♀ × C3H/HeSlc ♂) F1

- Characteristics
- Exhibits hybrid vigor, with strong robustness and high adaptability to environmental conditions.
 - Allows transplantation of skin, tissue, and tumors from both parental strains.

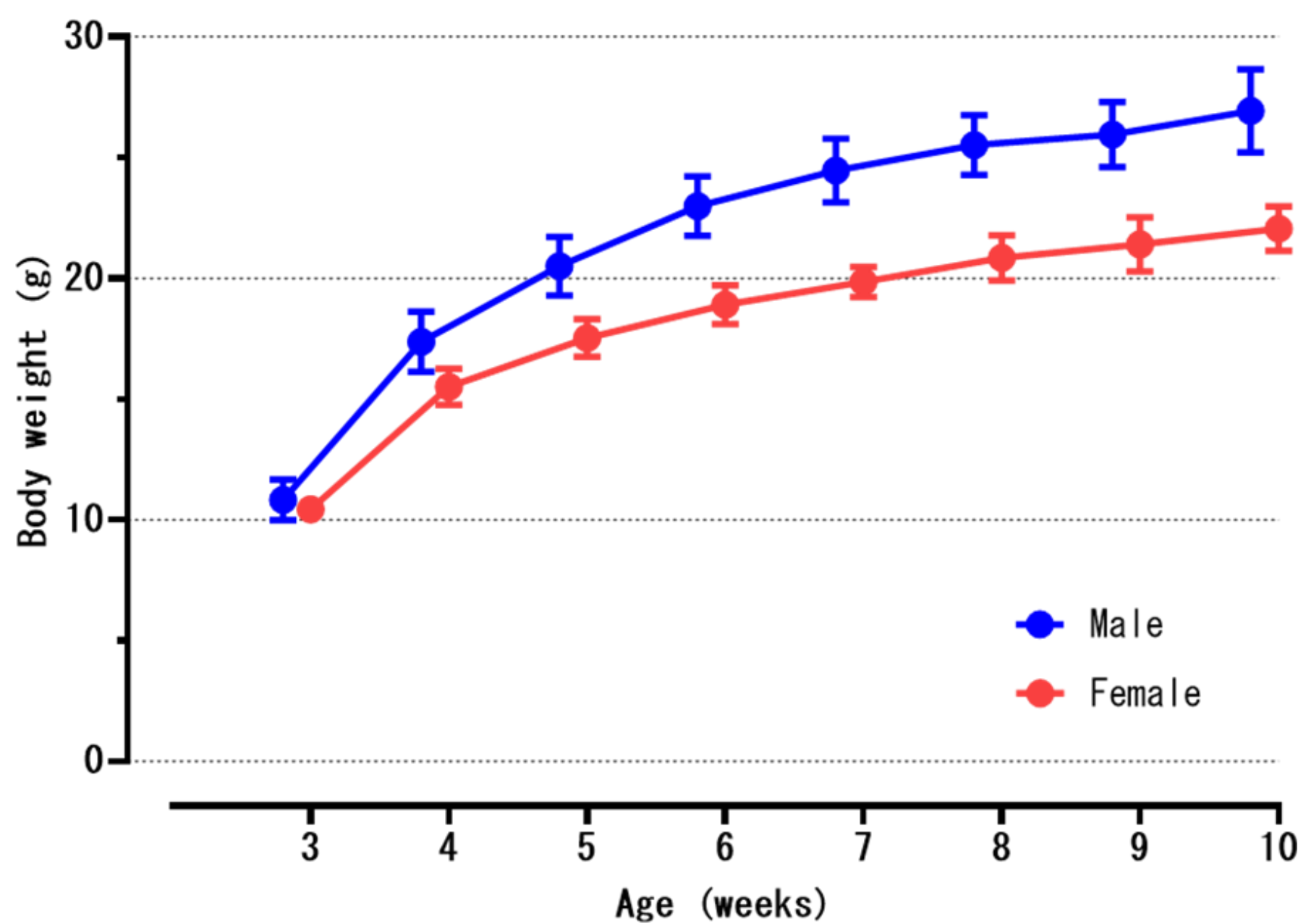
- Applications
- Long-term toxicity studies
 - Carcinogenicity studies

Coat color

Agouti (AaBBCCDD)



Body Weight Curve



		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
	(n=20) 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
	(n=20) S.D.	0.4	0.8	0.8	0.8	0.6	0.9	1.1	0.9

Hematology

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)

Organ Weights

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)

Clinical Chemistry

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)

Strain: CB6F1/Slc

(BALB/cCrSlc ♀ × C57BL/6NCrSlc ♂) F1

Characteristics

- Exhibits hybrid vigor, with strong robustness and high adaptability to environmental conditions.
- Allows transplantation of skin, tissue, and tumors from both parental strains.

Applications

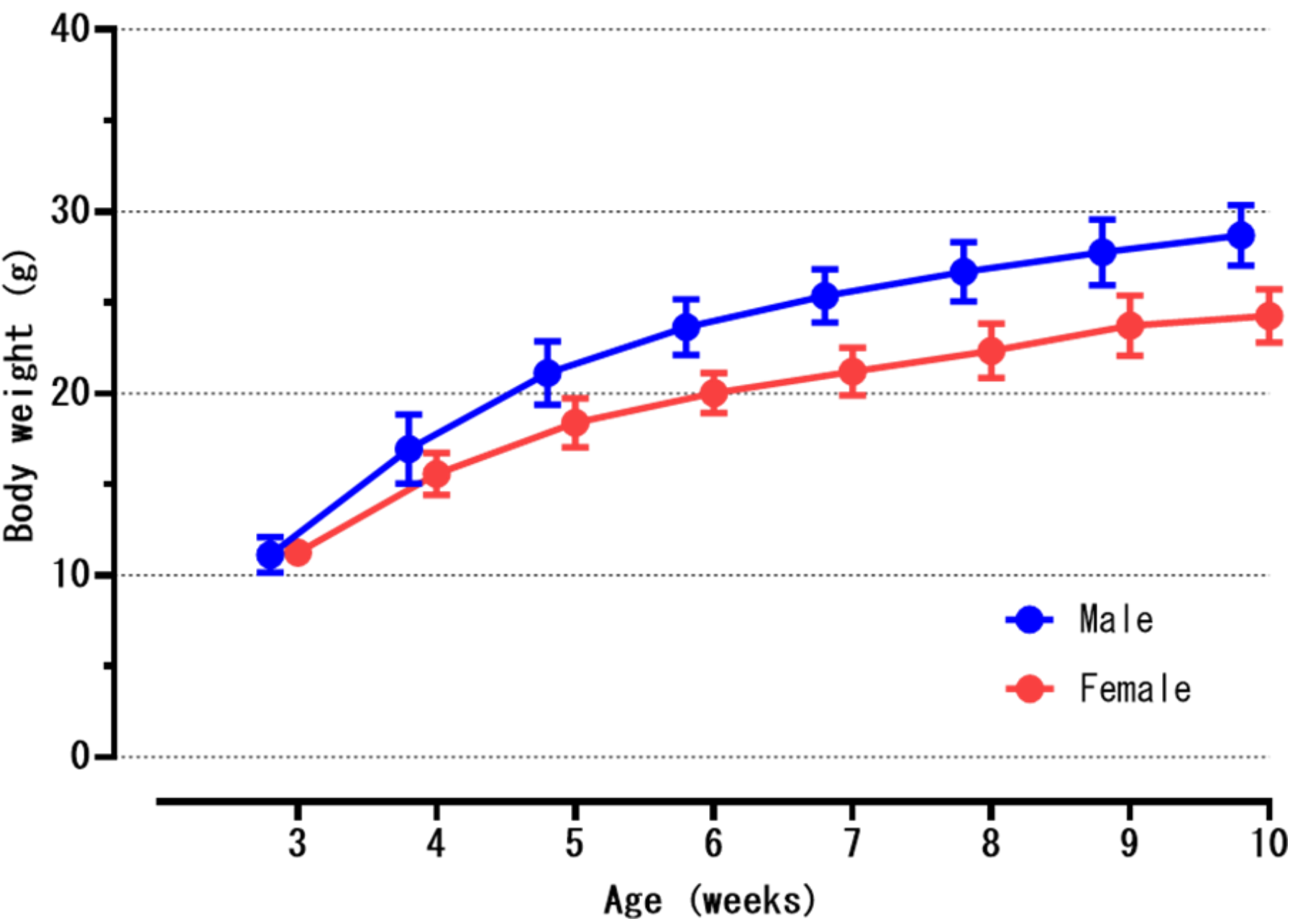
- Cell transplantation studies



Coat color

Agouti (AaBbCcDD)

■ Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Mouse (Immunodeficient model) BALB/cSlc-nu/nu

Strain: BALB/cSlc-nu/nu

Characteristics

- BALB/c nude mouse established by backcrossing BALB/c mice and introducing the nu gene.
- Smaller body size compared with normal mice.
- Athymic (lacking a thymus anatomically).
- Immunologically deficient in T-cell function.
- Enhanced macrophage activity.
- High natural killer (NK) cell activity.

Applications

- Immunology and cancer research ¹⁾
- Anticancer drug screening ²⁾
- Monoclonal antibody production



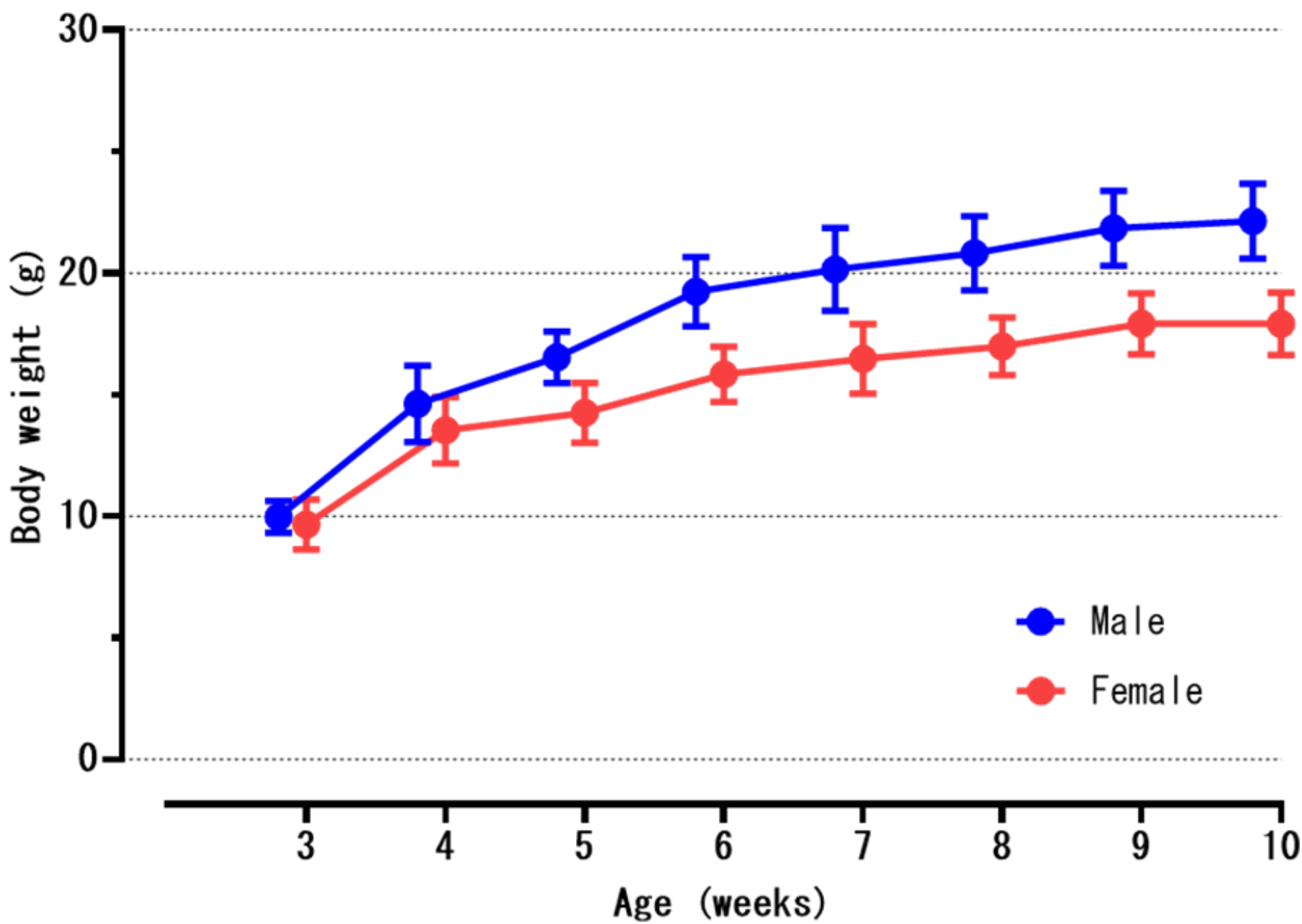
1) Oda et al. Cancer Sci. 2010. 101:173-179.
2) Okuno et al. Cancer Res. 2000. 60: 2988-2995.

H-2 HAPLOTYPE
H2^d

Origin

Introduced in 1976 from the Institute of Medical Science, The University of Tokyo.

Body Weight Curve



		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

Mouse (Immunodeficient model) BALB/cSlc-nu/nu

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: KSN/Slc

Characteristics

- *Developed by Sudo, Suzuki, et al. at the Institute of Medical Science, The University of Tokyo, by introducing the nu gene derived from BALB/c nude mice into DDD/1 mice.
- *Robust with high reproductive performance.
- *Well-developed mammary glands, enabling homozygous breeding.
- *Enables transplantation and serial passage of xenografted tumors including human cancers.

Applications

- Immunology and cancer research ¹⁾
- Anticancer drug screening ²⁾

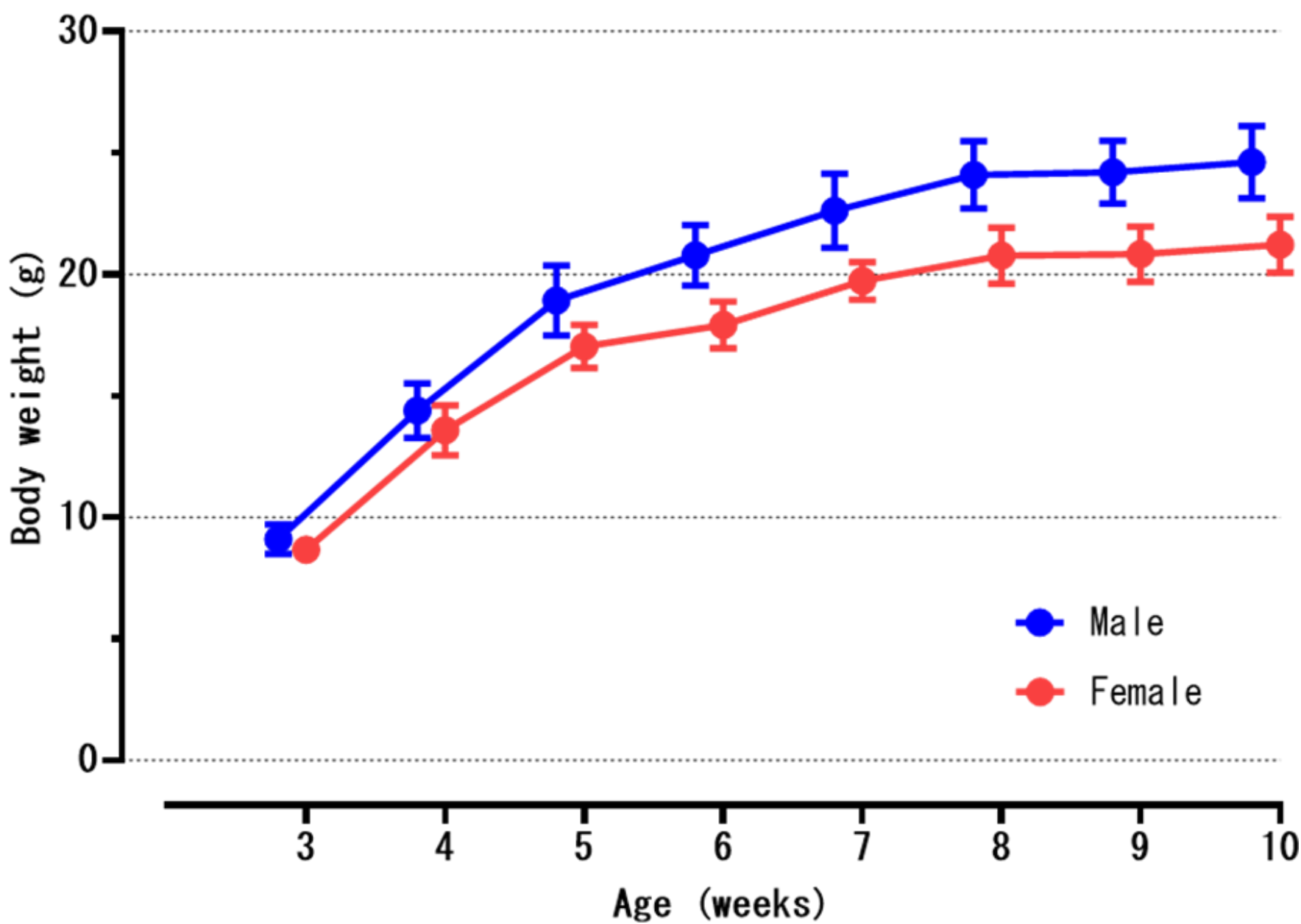


1) Mitsui et al. Drug Deliv. 2002. 9:249–252.
2) Lee et al. Exp. Anim. 2003. 52: 371–375.

Origin

Introduced in 1985 from the Institute of Medical Science, The University of Tokyo.

Body Weight Curve



		Age (weeks)							
		3	4	5	6	7	8	9	10
Male (n=20)	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 (n=20)	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)

Hematology

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	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)

Organ Weights

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=20	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)

Clinical Chemistry

Items	Unit	Male	Female
		10 weeks	10 weeks
		n=10	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)

Mouse (Oocyte Yield)

■ Number of oocytes collected after superovulation (per embryo)

Comparison of oocyte yield among three mouse strains following superovulation used for IVF and embryo transfer

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

Animals used: C57BL/6NCrSlc (9 weeks old, n=188)
C57BL/6JmsSlc (9 weeks old, n=81)
B6D2F1/Slc (9 weeks old, n=87)

Superovulation treatment:
PMSG–hCG (51 IU per mouse, 48–hour interval).

Oocyte collection :
Oocytes collected from females mated with males of the same strain after confirmation of vaginal plug.

Strain: Slc:SD

Characteristics

- Docile and easy to handle
- Relatively large size with good growth performance
- High reproductive capacity

Applications

Widely used in a broad range of general research applications.

- Safety studies
- Toxicity evaluation'
- Pharmacological studies
- Immunology and metabolic studies

Coat color

Albino

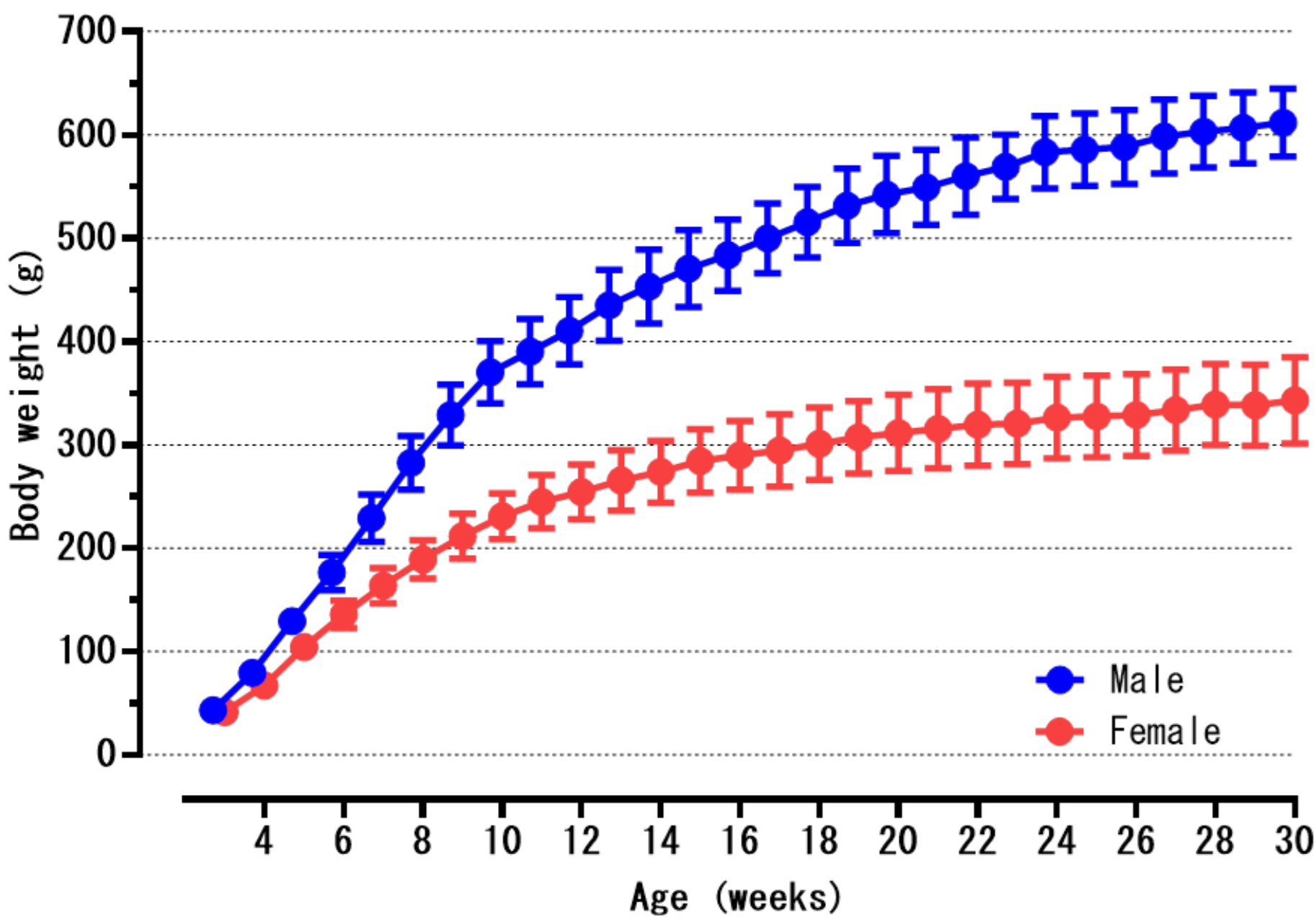
Origin

Introduced in 1985 from the Institute of Medical Science, The University of Tokyo.



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

Body Weight Curve



		Age (weeks)													
		3	4	5	6	7	8	9	10	11	12	13	14	15	16
Male (n=10)	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 (n=10)	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 (n=10)	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 (n=10)	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

Outbred rat

Slc:SD

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: Slc:Wistar

Characteristics

- Docile and easy to handle.
- Relatively small body size with good growth performance.
- High adaptability to environmental conditions with stable physiological parameters.

Applications

Widely used in a broad range of general research applications.

- *Pharmacological studies¹⁻²
- *Safety studies
- *Immunology and metabolic studies

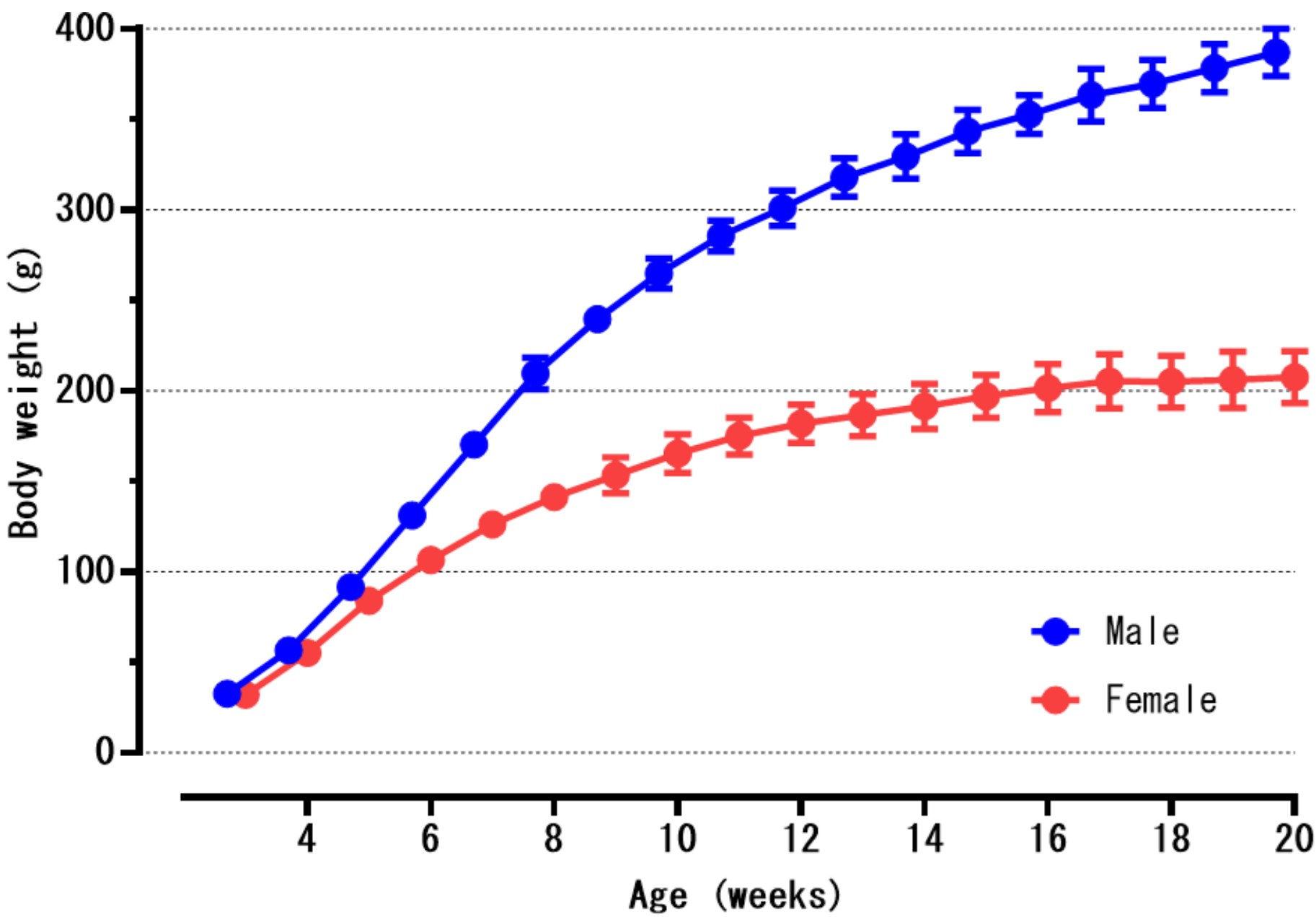


Coat color
Albino

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

Origin
Introduced in 1968 from the Institute of Medical Science, The University of Tokyo.

Body Weight Curve



		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

■ Hematology

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)

■ Clinical Chemistry

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)

Organ Weights

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)

Strain: Slc:Wistar/ST

Characteristics

- Docile and easy to handle.
- Relatively large body size with good growth performance.
- High reproductive performance.

Applications

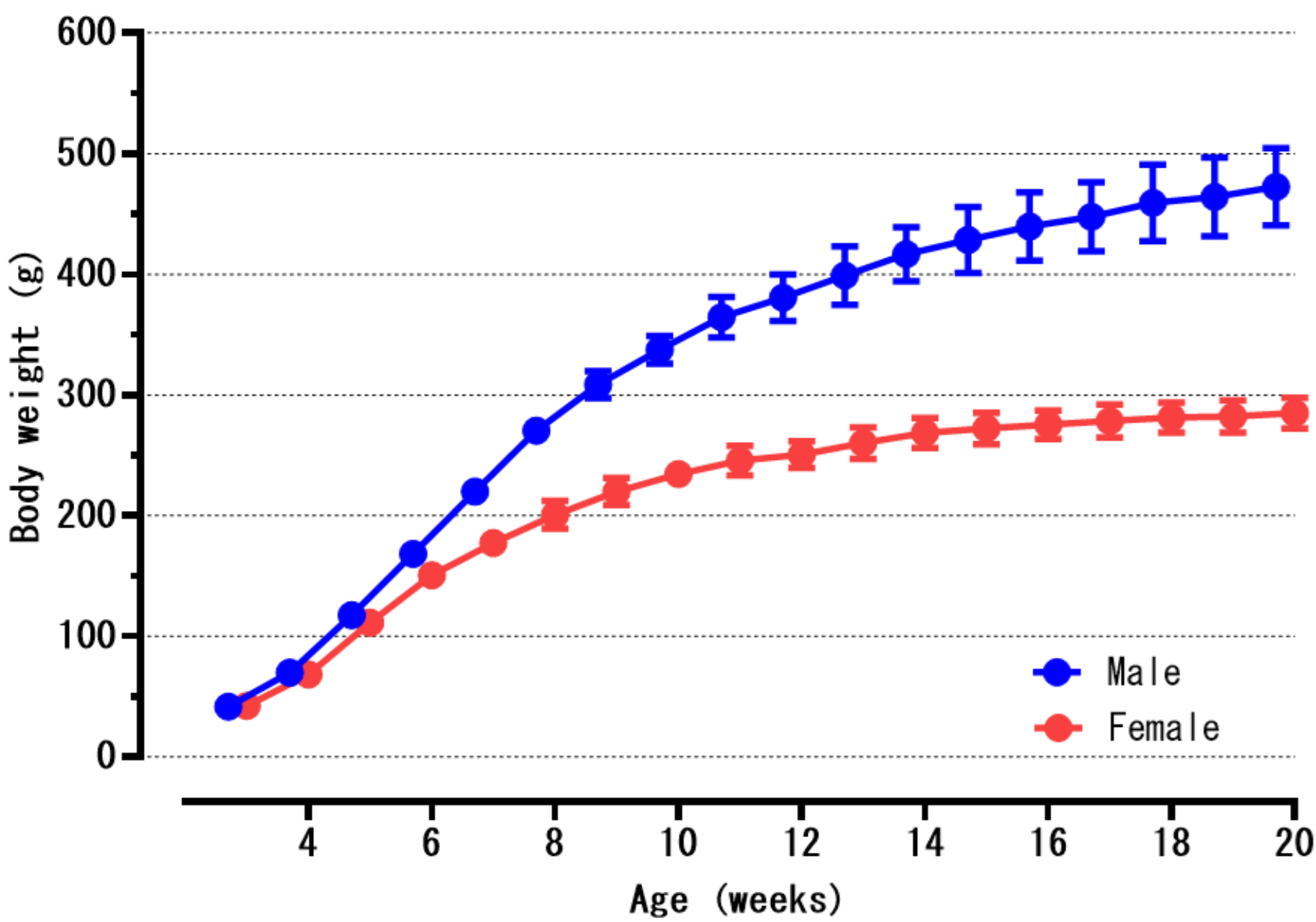
- Used in various research applications.
- Safety studies
 - Pharmacodynamics and pharmacological studies

Coat color
Albino

Origin
1 Introduced in 1974 from the Institute of Medical Science, The University of Tokyo.



■ Body Weight Curve



		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

飼料: ラボR-A2(日本農産工業)

Hematology

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)

Clinical Chemistry

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)

Organ Weights

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks 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)

Strain: RccHan[®]:WIST

Characteristics
Widely used worldwide, particularly in Europe, with extensive application history.

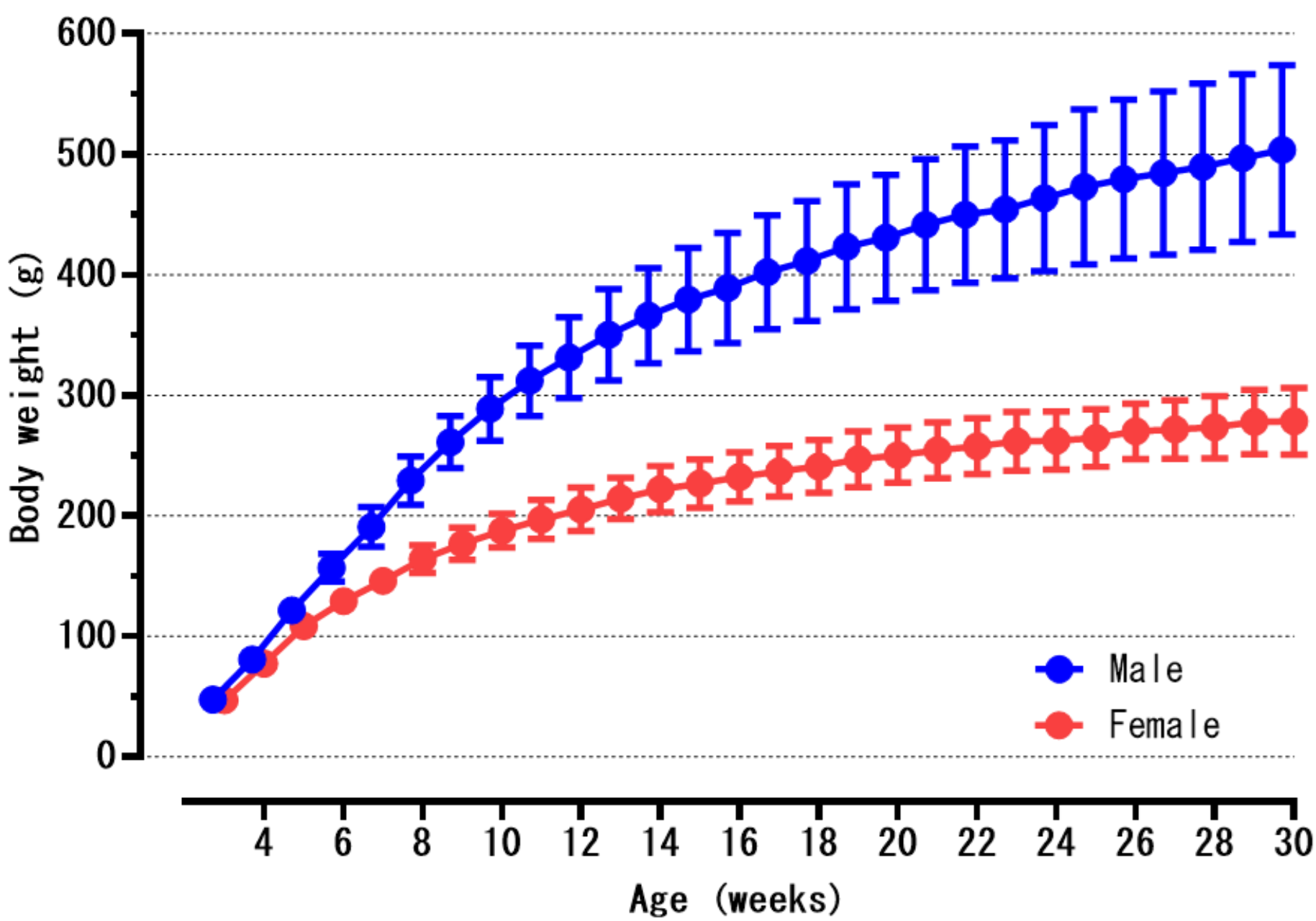
Applications
Useful as a general toxicity model including long-term studies.

Coat color
Albino

Origin
Introduced in 1989 from Zentralinstitut für Versuchstierzucht (Germany).



■ Body Weight Curve



		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

Hematology

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.)

Clinical Chemistry

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.)

Organ Weights

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.)

Strain : BN/SsNSIc

Characteristics

- High IgE antibody production capability.
- High airway responsiveness to various allergens and chemical substances.

Applications

- Transplant immunology research
- Immunology and allergy research

Coat color

Brown(a, b, h)

Genetic profile

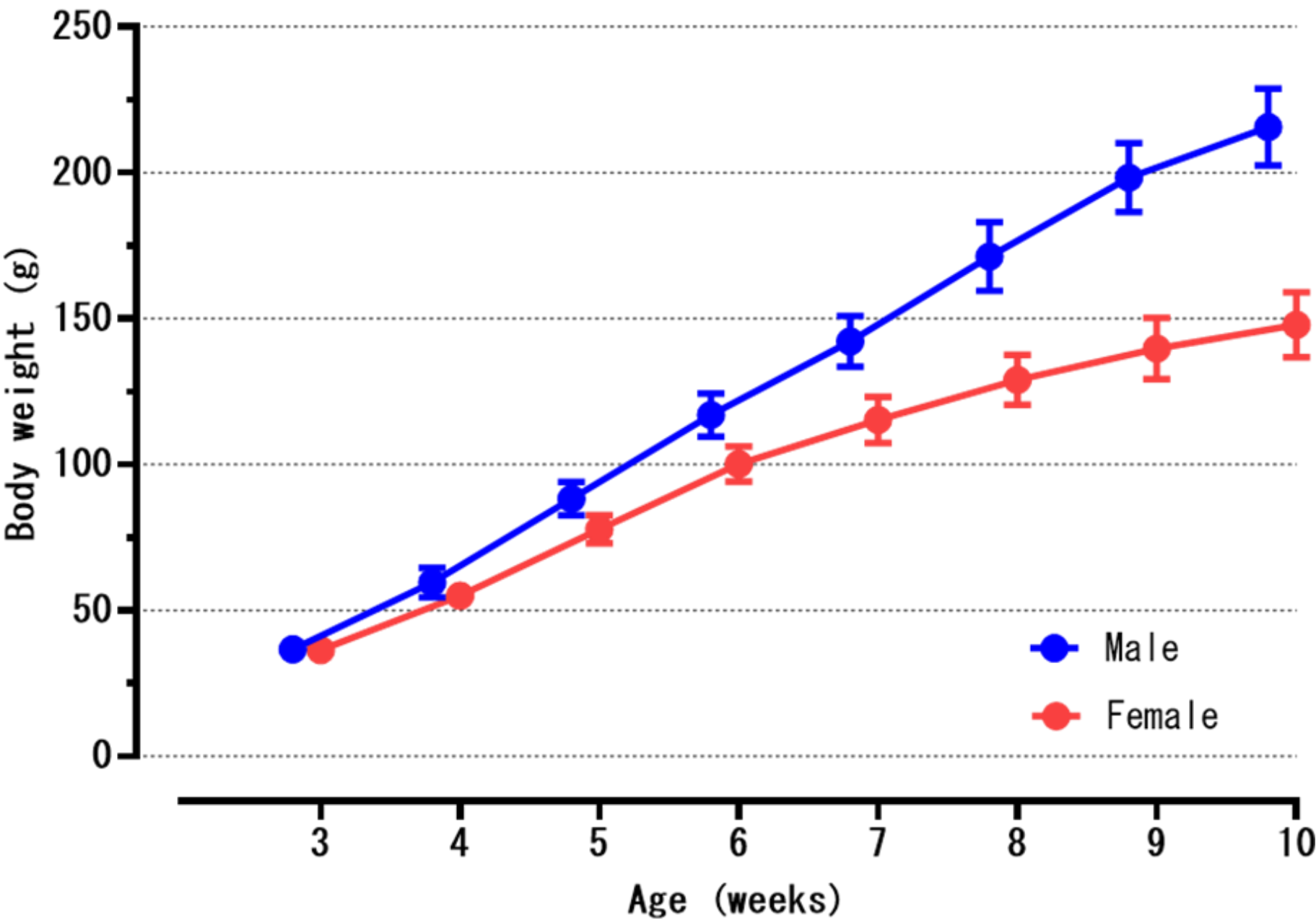
RT1.A:n

Origin

Introduced in 1994 from the U.S. NIH.



Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: F344/NSIc
(Fischer 344)

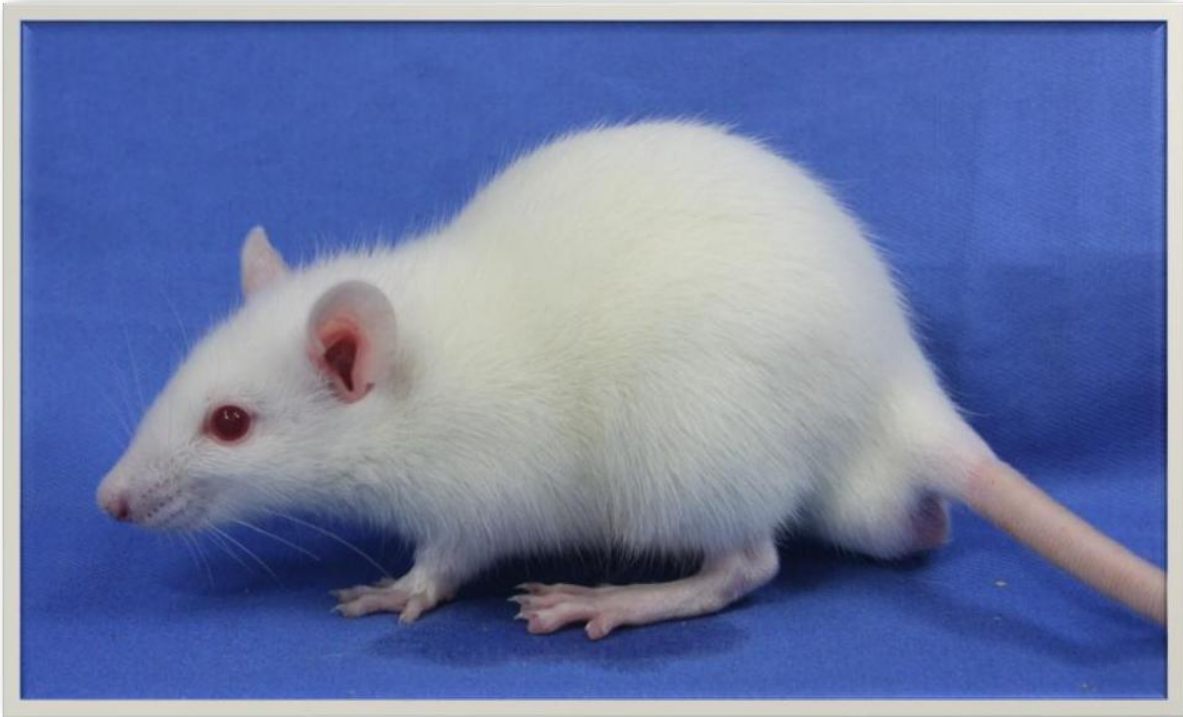
Characteristics

- Docile and easy to handle.
- Relatively small body size with good growth performance.

Applications

Widely used in a broad range of general research applications.

- Safety studies (carcinogenicity studies)
- Toxicity evaluation¹⁻²
- Pharmacodynamics and pharmacological studies
- Immunology and cancer research



Coat color

Albino (a, c, h)

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

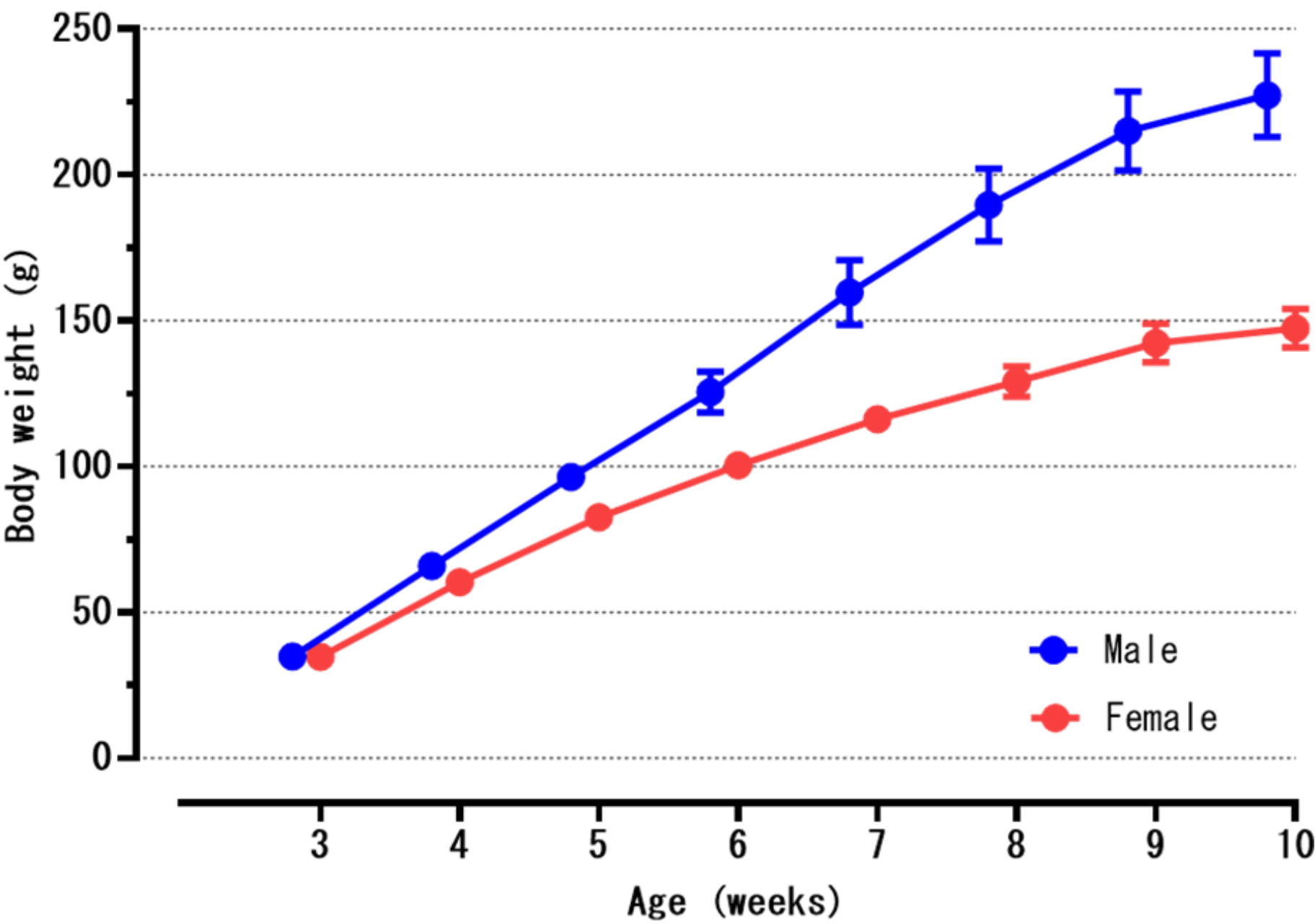
Genetic profile

RT1.A:I

Origin

Introduced in 1980 from the Institute of Medical Science, The University of Tokyo (derived from an inbred rat strain developed by Curtis et al. for cancer research).

■ Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: Slc:Syrian

- Characteristics
- Enters hibernation under low-temperature conditions.
 - The cheek pouch is immunologically privileged and does not reject transplanted cells.
 - Prone to diet-induced hyperlipidemia.

- Applications
- Infectious disease studies (e.g., SARS-CoV-2)
 - Cancer and carcinogenicity studies.
 - Chemotherapy-induced oral mucositis studies².
 - Hamster-derived cell culture studies.

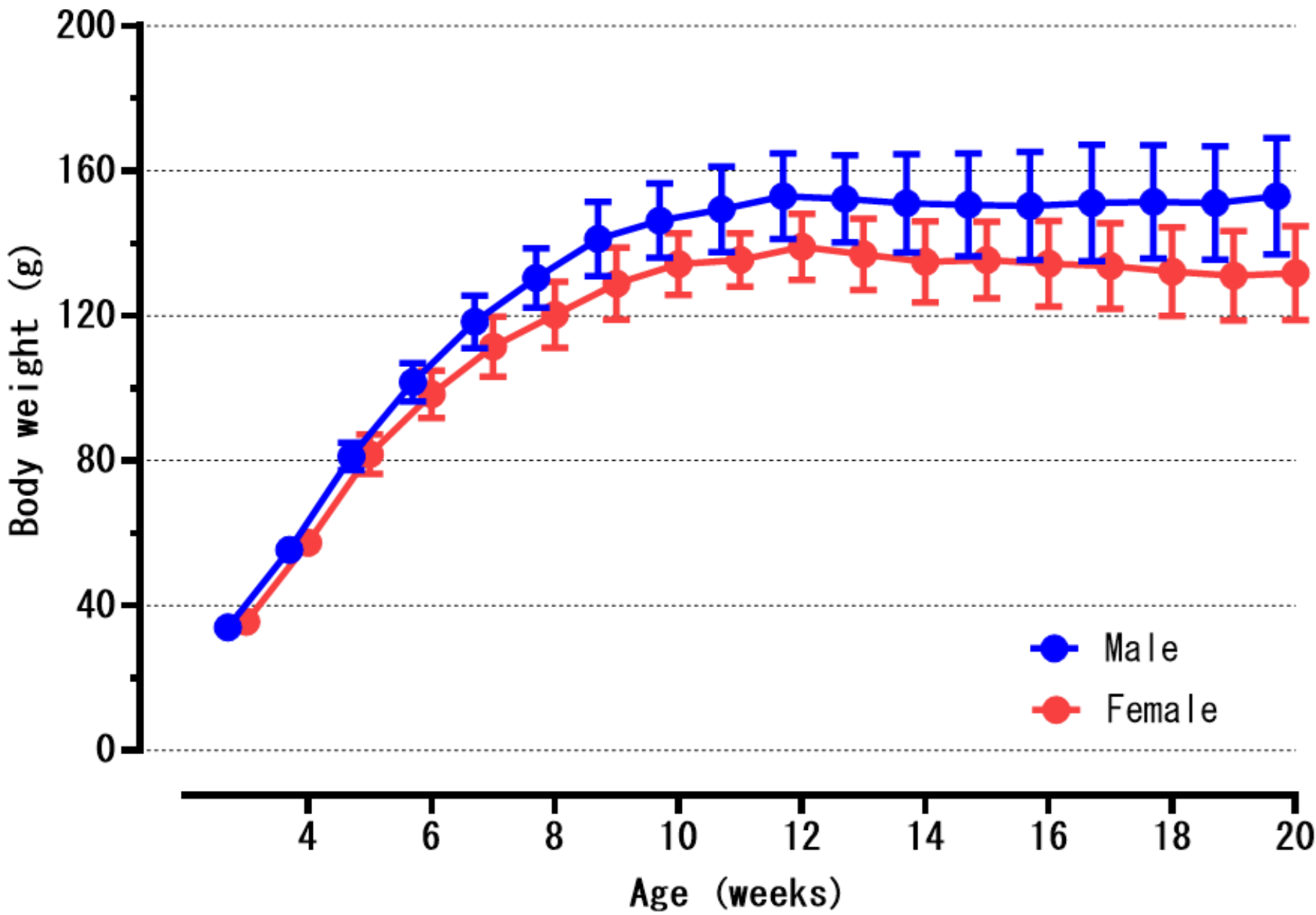


1) Imai et al. Proc Natl Acad Sci. 2020. 117:16587–16595.
2) Watanabe et al. J Pharmacol Sci. 2013. 121:110–118.

Origin

Introduced in 1978 from the Japan Biological Science Research Institute.

Body Weight Curve



		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

Hematology

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)

Clinical Chemistry

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)

Organ Weights

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)

Strain: Slc:Hartley

Characteristics

Originally a conventional outbred Hartley guinea pig strain, converted to SPF status in 1981 via hysterectomy and hand-rearing..

Applications

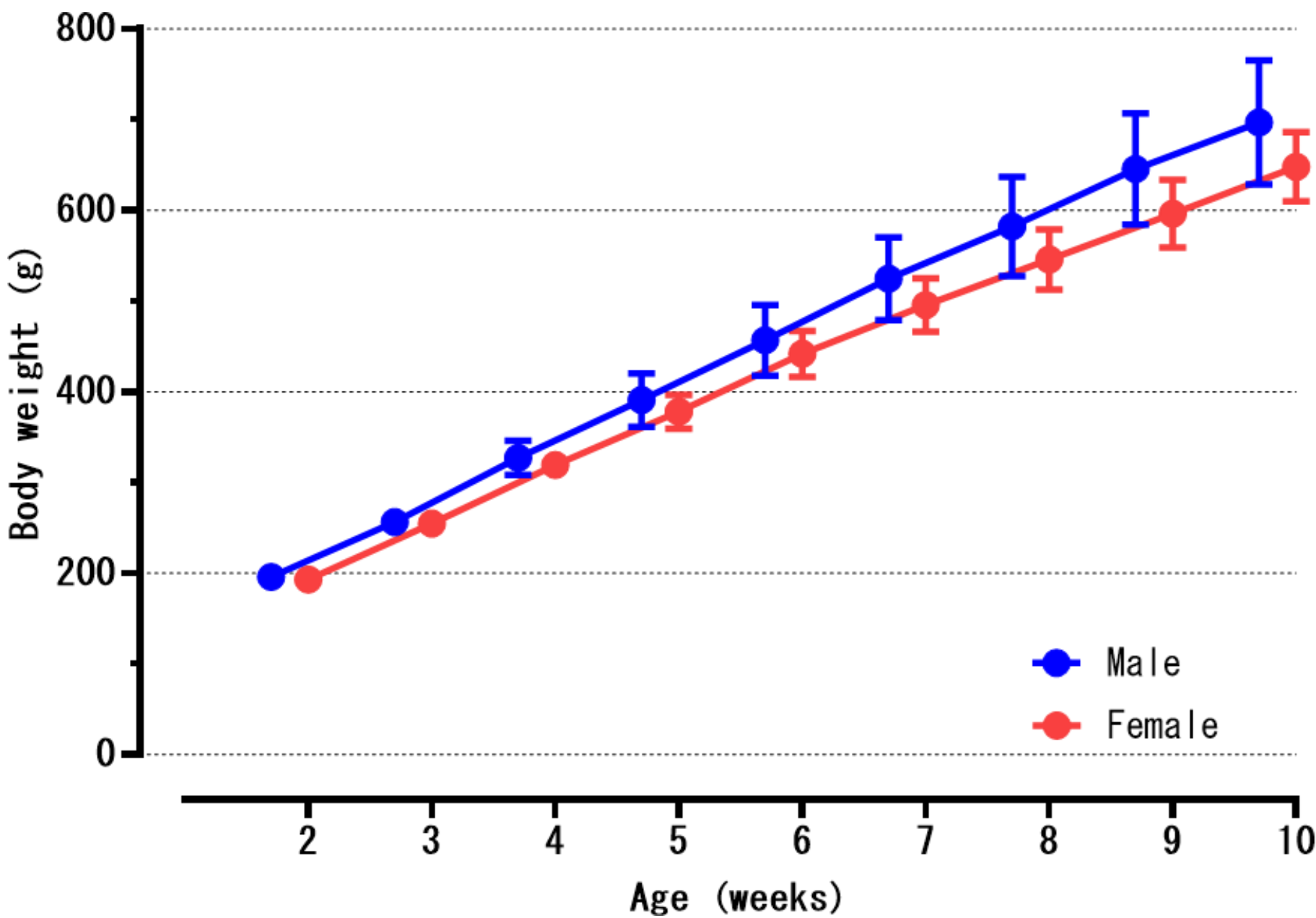
- Vaccine testing
- Skin sensitization studies
- Bronchial allergy studies
- Used in auditory research



Origin

Introduced in 1959 from the National Institute of Health (Japan) (currently National Institute of Infectious Diseases, Japan).

Body Weight Curve



		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

Hematology

		Male		Female	
Items	Unit	5 weeks	10 weeks	5 weeks	10 weeks
		n=10	n=9	n=10	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)

Clinical Chemistry

		Male		Female	
Items	Unit	5 weeks	10 weeks	5 weeks	10 weeks
		n=10	n=9	n=10	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)

Organ Weights

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)

Aging mouse / aging model



104週齢のC57BL/6NCrSlc小鼠

Strain: C57BL/6NCrSlc

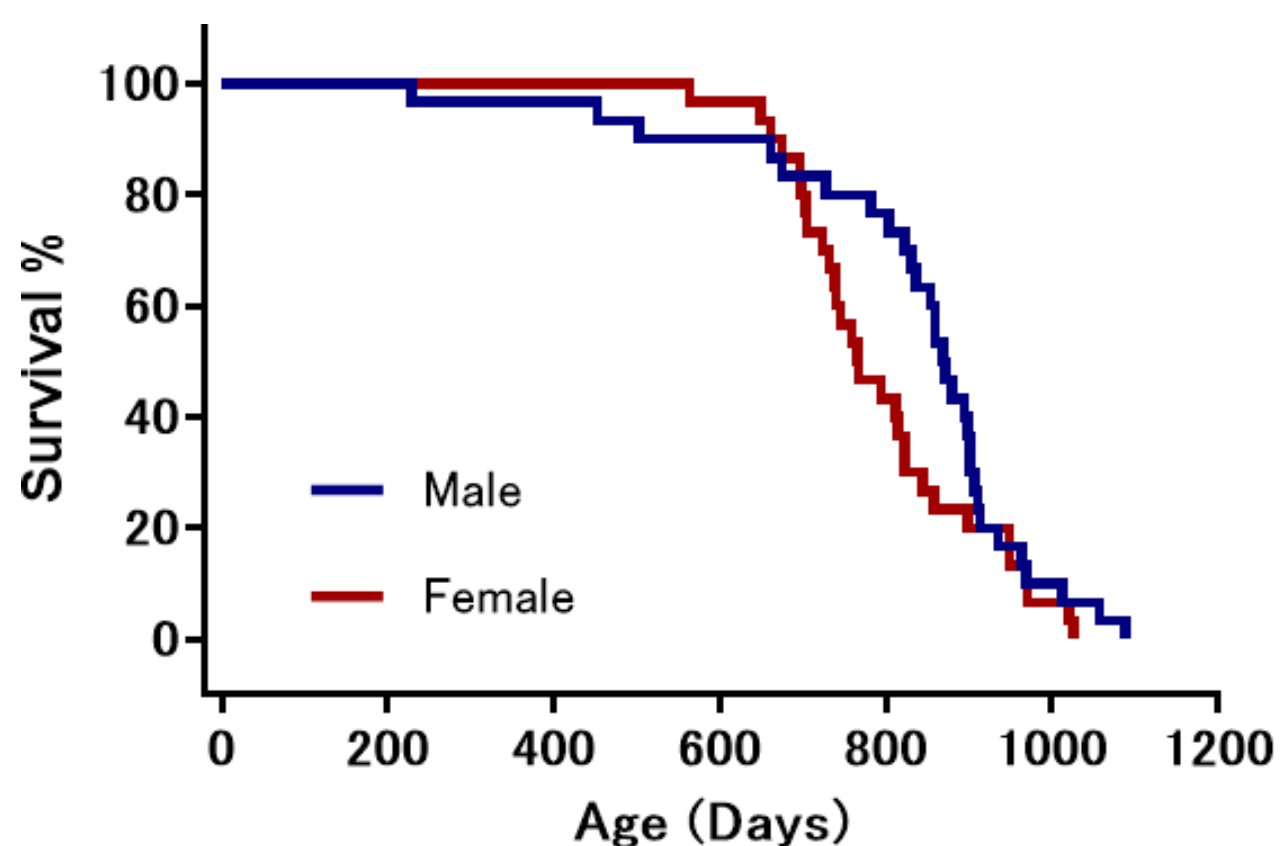
Applications

- Elucidation of aging and senescence mechanisms
- Research on aging regulation
- Research on age-related diseases such as dementia, osteoporosis, and frailty
- Age-related changes in immune function. ¹⁾

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

Male and female C57BL/6NCrSlc mice were fed a standard diet (5L3R; PMI Nutrition International) and maintained under long-term housing conditions. Body weight measurements, hematology tests, blood biochemical analyses, and organ weight measurements were performed. In addition, motor function was evaluated using the rotarod test, and cognitive function was assessed using the Morris water maze test.

■ Survival curve

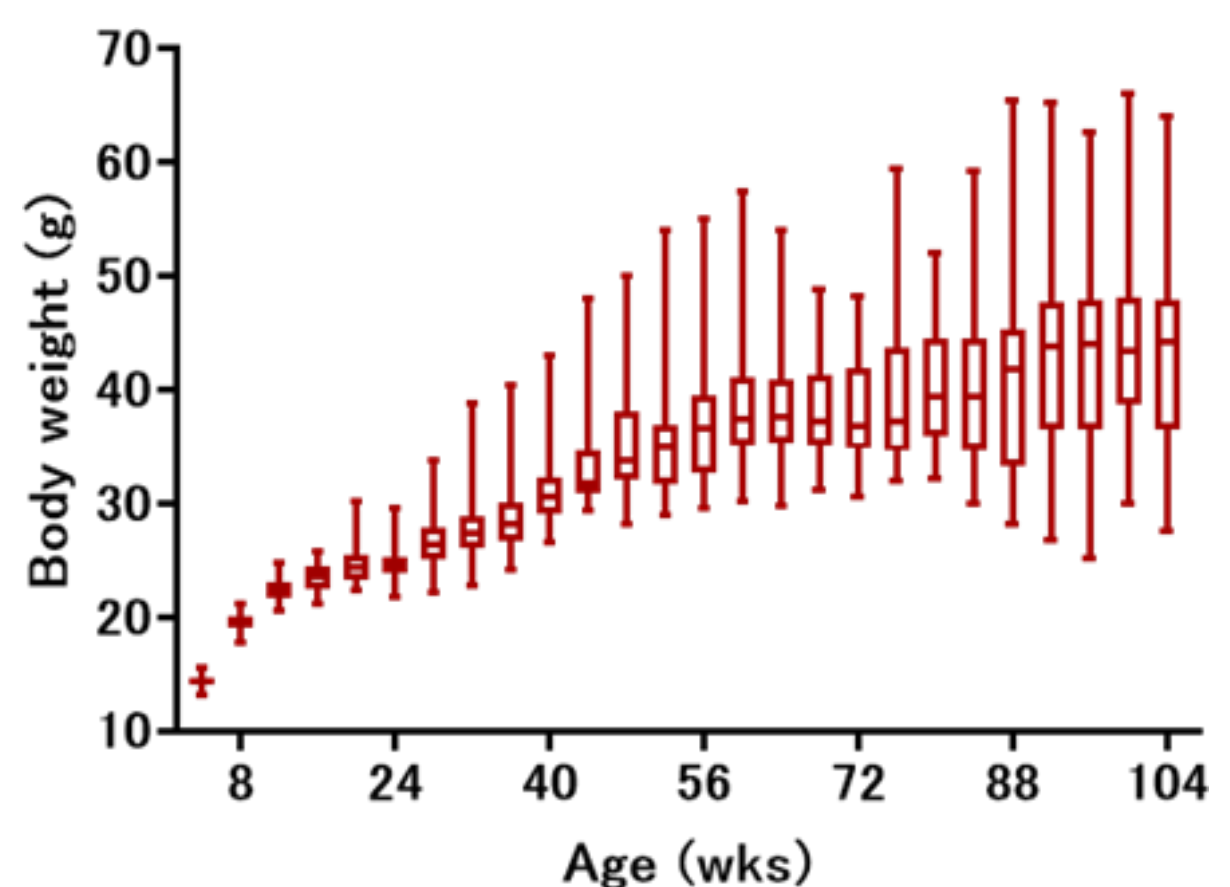
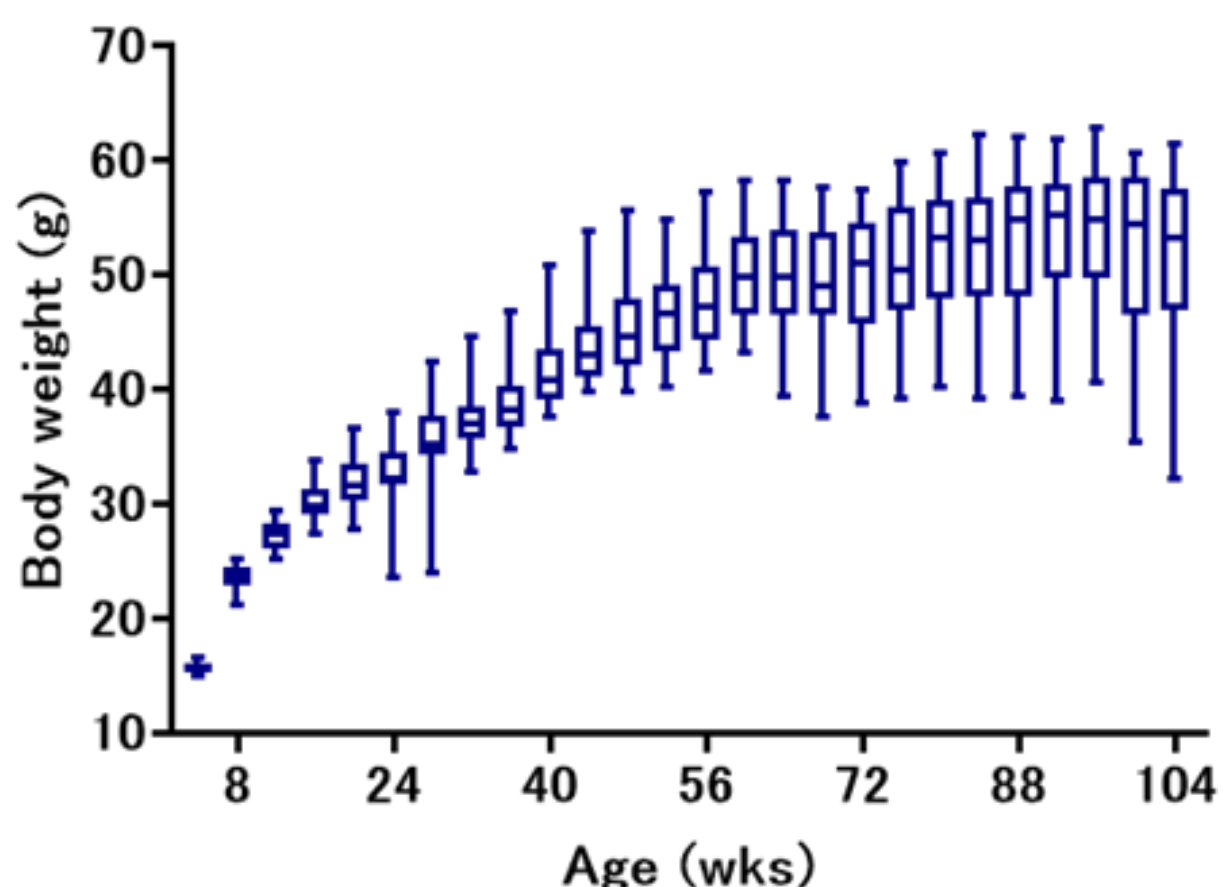


雌雄 N=30ずつ

飼育: 5匹/ケージ(群飼育)

飼料: 5L3R(PMI Nutrition International)

■ Body Weight Curve



飼料: 5L3R(PMI Nutrition International)

■ Hematology

		Male			
Items	Unit	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

		Female			
Items	Unit	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)

■ Clinical Chemistry

Items	Unit	Male			
		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

Items	Unit	Female			
		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)

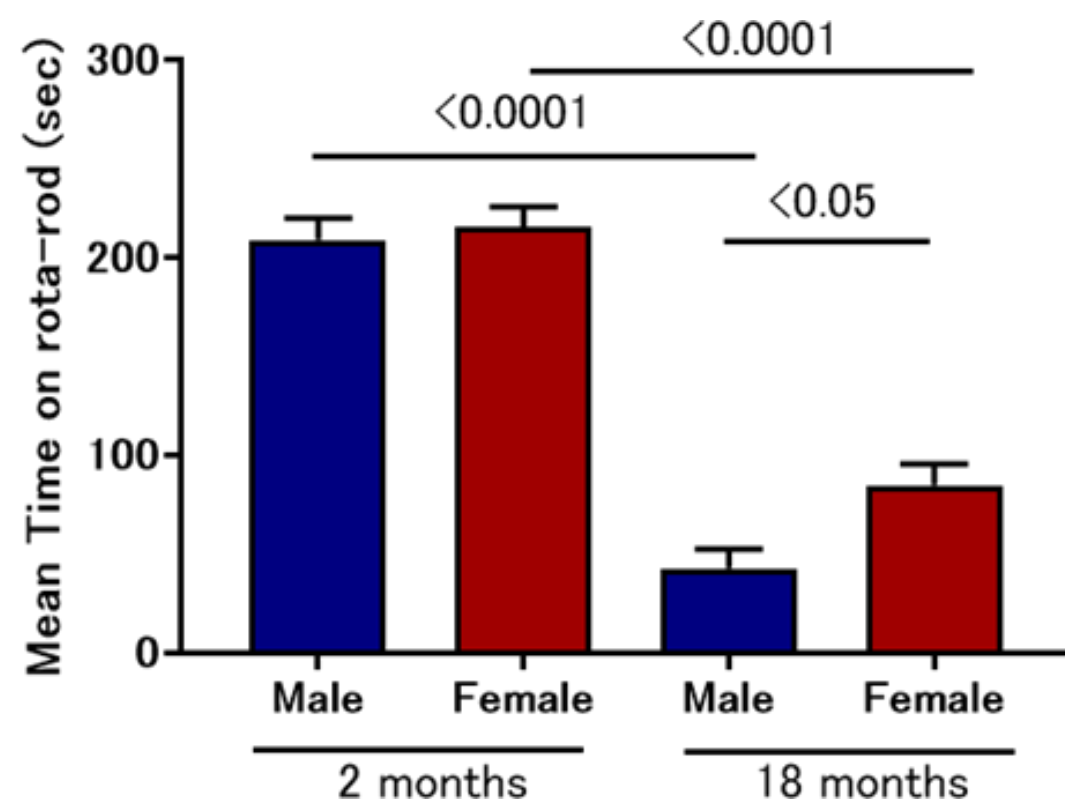
■ Organ Weights

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)

■ Motor function

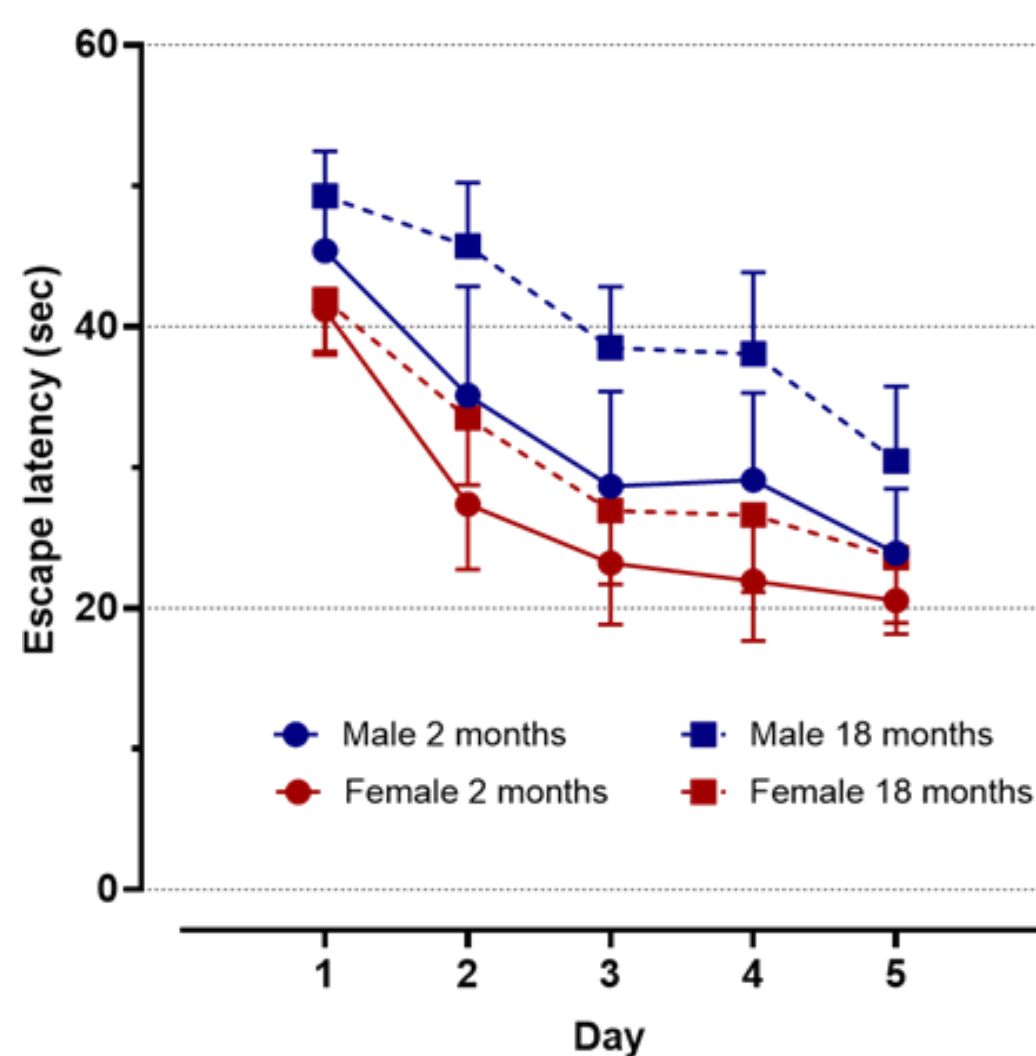


Values are mean $\pm$ S.E.
飼料: 5L3R(PMI Nutrition International)

To investigate age-related changes in motor function, the rotarod test was performed in male and female mice at 2 and 18 months of age.

In both sexes, a statistically significant decrease in motor endurance time was observed in 18-month-old mice compared with 2-month-old mice.

■ Cognitive function



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

To investigate age-related changes in cognitive function, the Morris water maze test was conducted in male and female mice at 2 and 18 months of age.

In both sexes, a tendency toward prolonged spatial learning time was observed in 18-month-old mice compared with 2-month-old mice.

List of immunodeficient mouse models

Strain	變異類型	背景系統	coat	Tcell	B cell	NK cell	補體系統
BALB/cSlc- <i>nu</i> / <i>nu</i>	spontaneous mutation	BALB/ c	—	—	+	+	+
KSN/Slc	spontaneous mutation	DDD/ 1	—	—	+	+	+
C. B-17/IcrHsd- <i>Prkdc</i> ^{scid}	spontaneous mutation	C. B-17	+	—	—	+	+
BRJ (BALB/c <i>Rag-2</i> ^{-/-} <i>Jak3</i> ^{-/-})	genetically engineered	BALB/ c	+	—	—	—	+

Severely immunodeficient mouse: BRJ mouse (BALB/c Rag-2^{-/-}Jak3^{-/-})

- Characteristics ^{1), 2)}
- Double knockout of Rag-2 and Jak3 genes
 - Although severely immunodeficient, these mice are robust, stress-resistant, and show resistance to drugs and radiation
 - Permits engraftment of human normal and tumor cells
 - Optimized for PDX (patient-derived xenograft) model establishment

Coat color
Albino

Origin
Introduced in 2023 from Kumamoto University (developed by Prof. Seiji Okada, Kumamoto University)
Produced and distributed under contract by Setsurotech Co., Ltd.



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

Tumorigenicity study

Tumorigenicity studies were performed using 6–8-week-old BRJ mice with age-matched BALB/c nu/nu and CB-17 SCID mice as controls.

HeLa S3 cells, a subline of HeLa cells, were implanted.
Tumor formation was evaluated 84 days after implantation.

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 mouse

KSN mice were developed by Sudo et al. by introducing the nu gene derived from BALB/c nude mice into the DDD/1 inbred strain, resulting in an immunodeficient nude mouse.

Immunodeficient mice are generally smaller and more fragile than normal mice.

Due to reduced immune function, handling requires SPF barrier facilities.

Compared with other immunodeficient mice, KSN mice are more robust and can be maintained for short periods under conventional conditions.

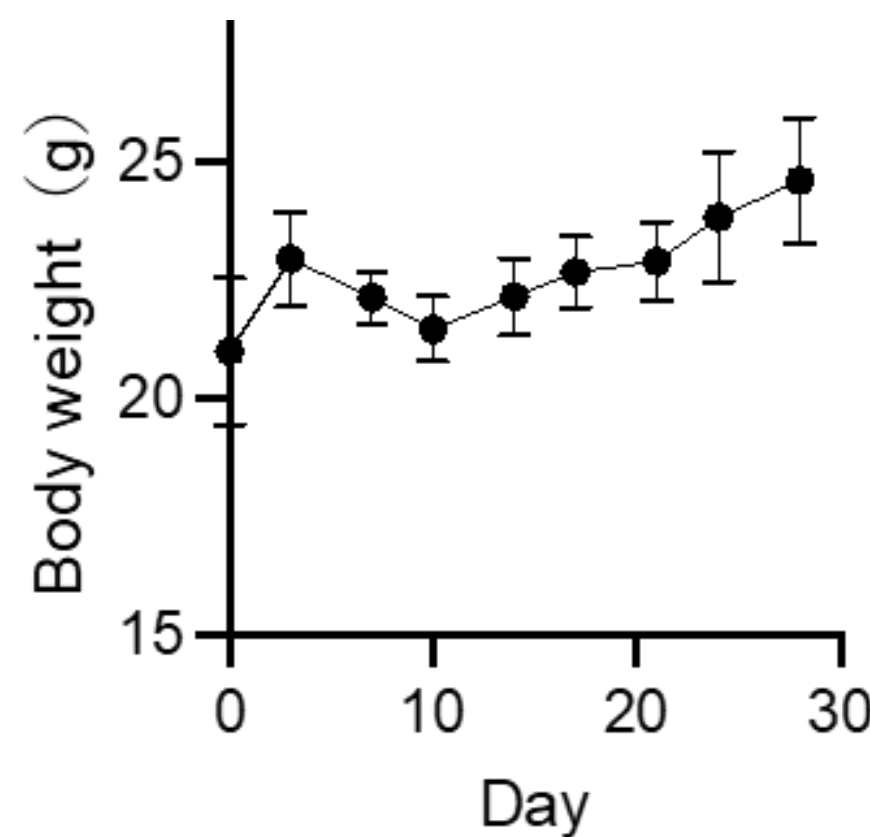
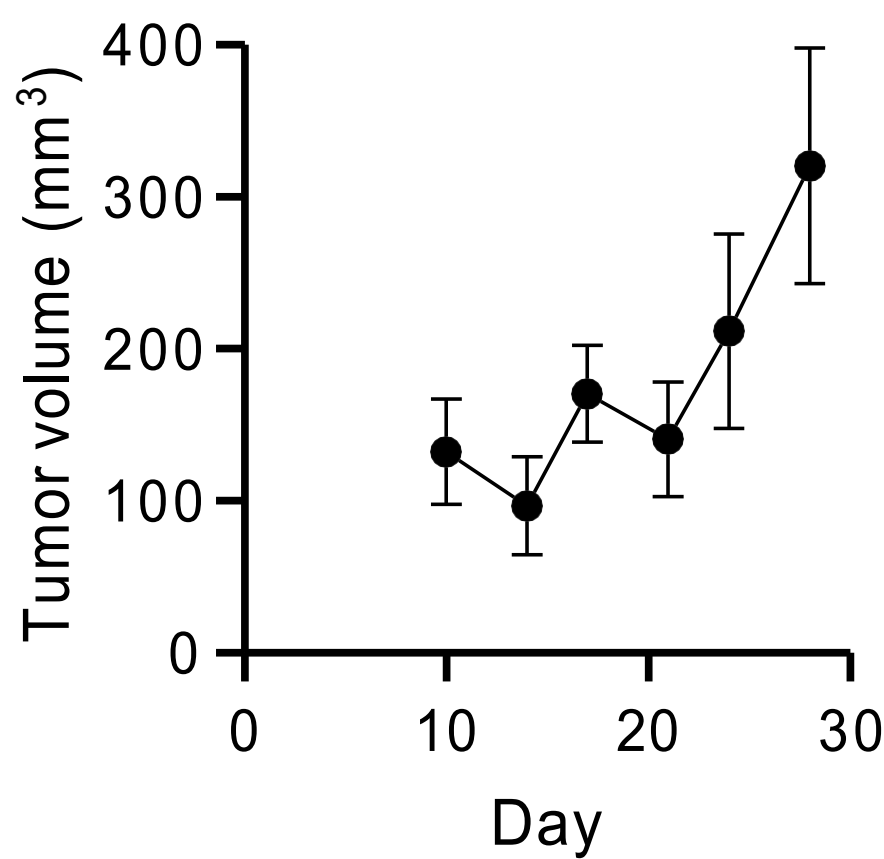
Enables tumor xenograft model establishment regardless of facility conditions.

Well-developed mammary glands allow orthotopic breast cancer models.

Deficient T-cell immunity enables evaluation of tumor immunology.

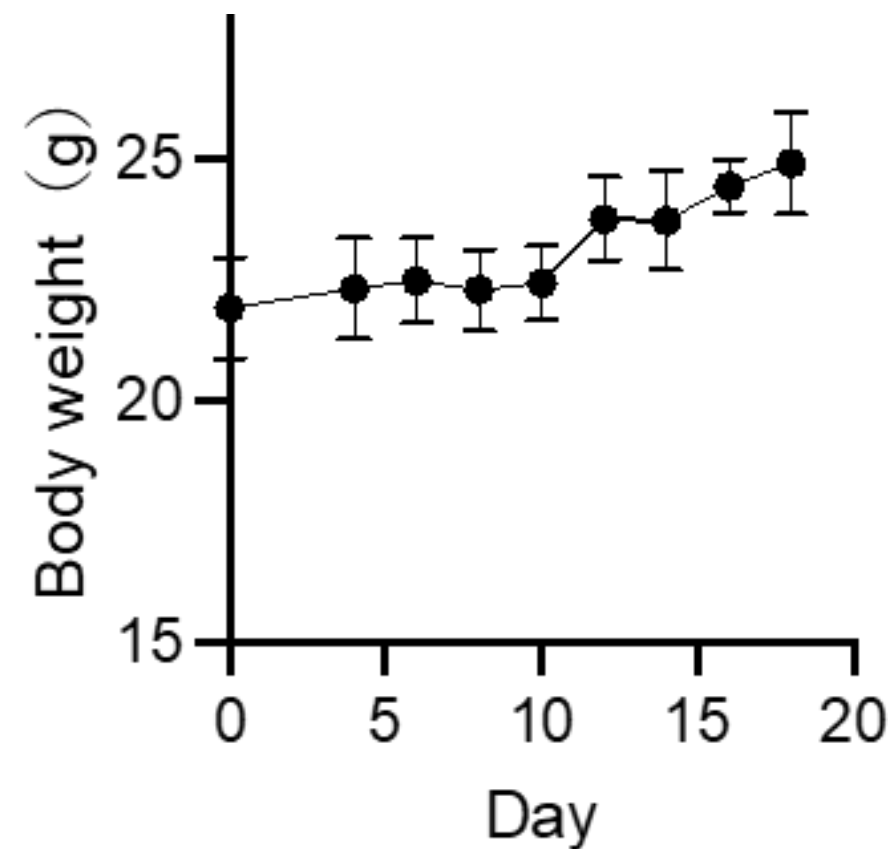
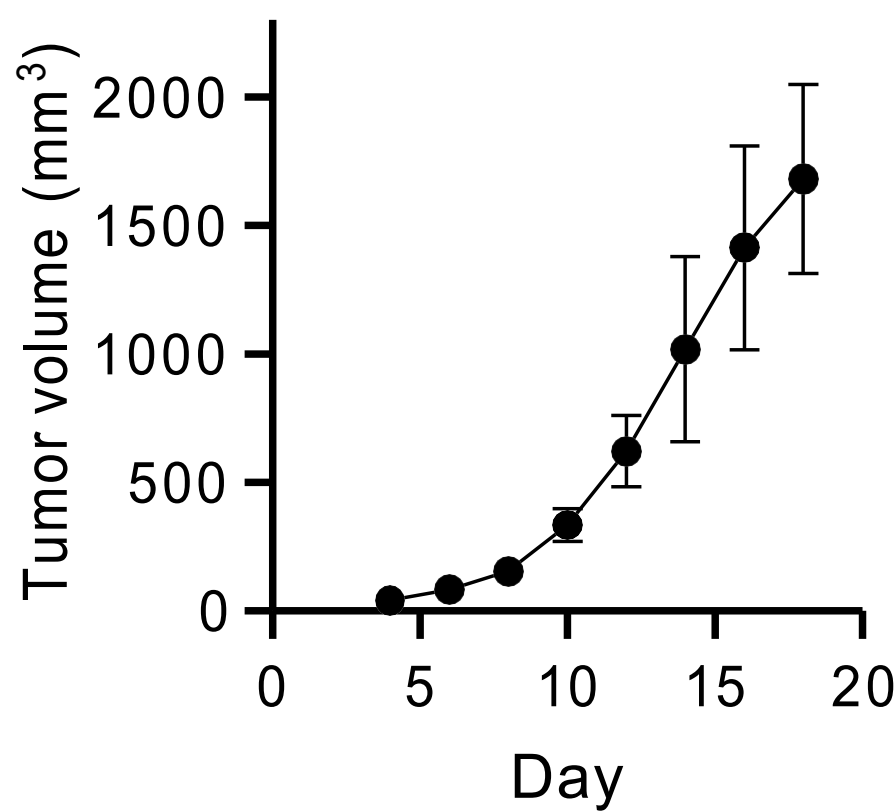


A549



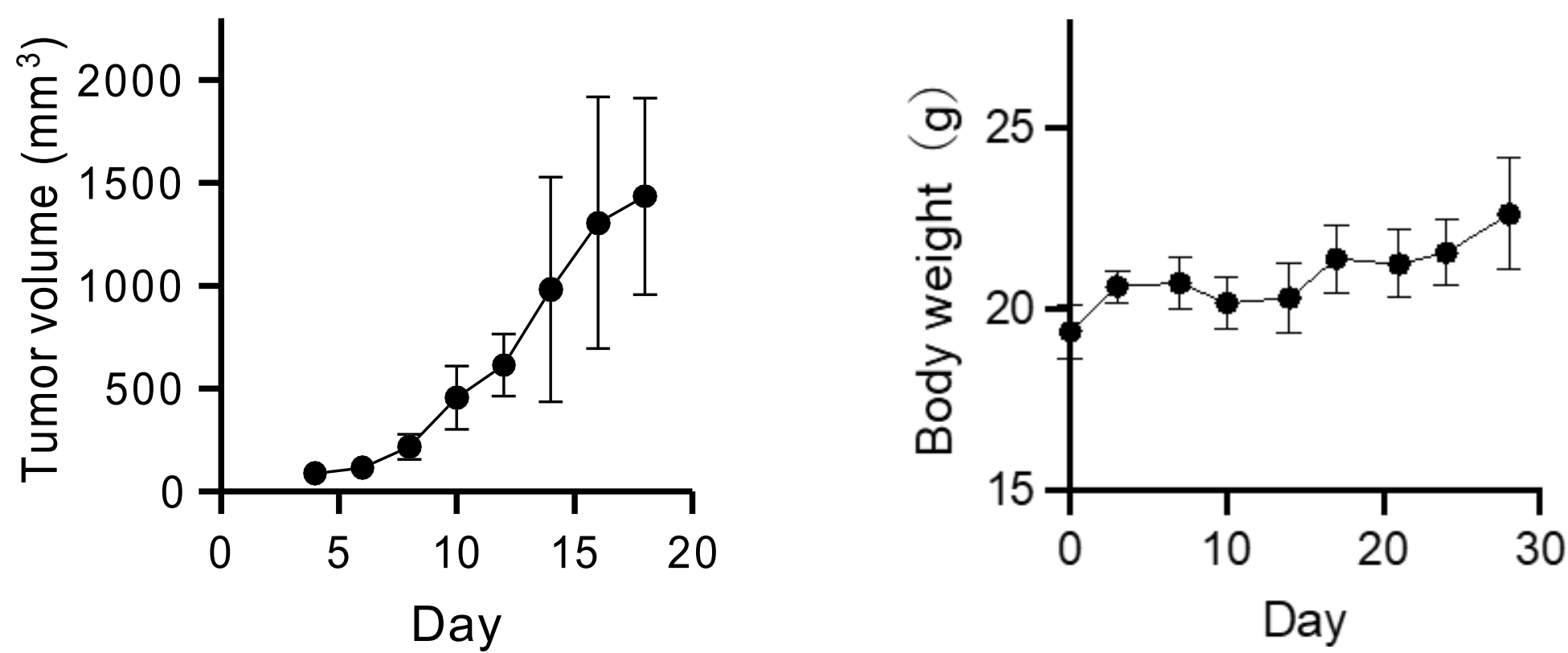
Experimental Example 1. A549 human lung cancer cells (5×10^6) were suspended in serum-free DMEM containing 50% Matrigel and subcutaneously implanted into the dorsal region.

E0771



Experimental Example 2. E0771 mouse breast cancer cells (1×10^6) were suspended in serum-free medium containing Matrigel and orthotopically implanted into the mammary gland.

B16F10



Experimental Example 3. Mouse malignant melanoma B16F10 cells (5×10^x) were suspended in serum-free RPMI1640 medium containing 50% Matrigel and subcutaneously implanted into the dorsal region.

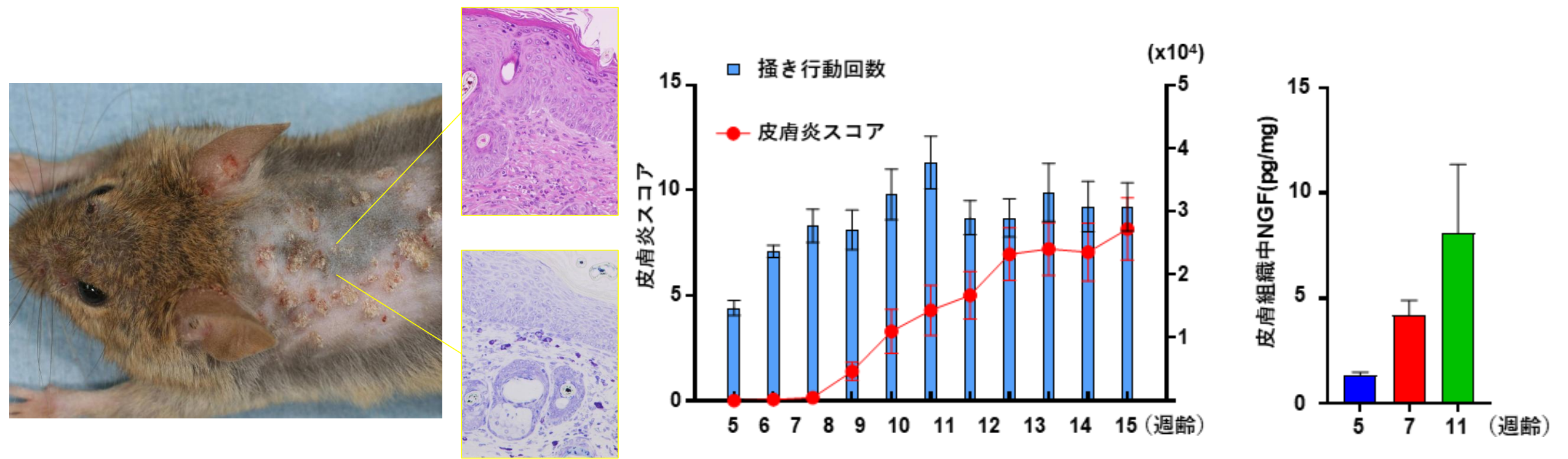
データ提供: 麻布大学 獣医学部生化学研究室 永根先生

Spontaneous atopic dermatitis model using NC/Nga mice

Atopic dermatitis is a chronic inflammatory skin disease accompanied by severe itching and characterized by repeated exacerbations and remissions. In atopic dermatitis, in addition to an atopic predisposition, multiple factors including impaired skin barrier function, physical contact with irritants, allergen exposure, skin infections, psychological stress, diet, and alcohol consumption contribute to disease development. In this study, disease characteristics and pharmacological efficacy were evaluated in NC/Nga mice colonized with the mouse fur mite (*Myobia musculi*).

Basic pathology

Gross appearance and histopathology of the skin Dermatitis score Time course of NGF levels in the skin

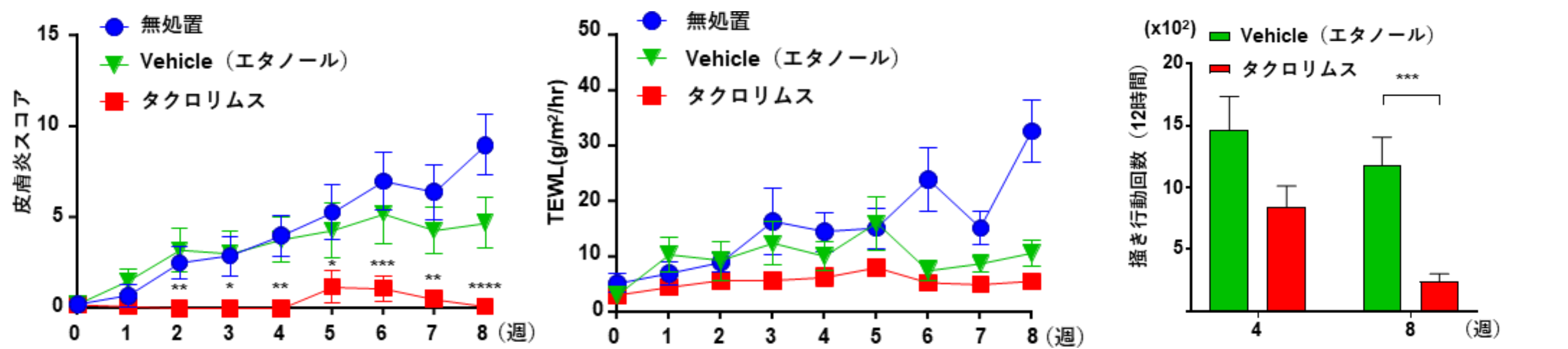


Around 6–7 weeks of age, pruritic dermatitis develops mainly on the ears, face, and back. As dermatitis progresses, serum total IgE levels, scratching frequency, and transepidermal water loss increase. Lesional skin exhibits epidermal hyperplasia, eosinophil infiltration, increased mast cells, and elevated nerve growth factor (NGF), which is associated with the extension of itch-related nerve fibers.

Preventive efficacy

NC/Nga mice colonized with *Myobia musculi* were treated with 0.1% tacrolimus once daily, and dermatitis score, scratching frequency, and transepidermal water loss (TEWL) were measured to evaluate its preventive effect on the development of skin lesions.

Time course of skin symptoms Time course of transepidermal water loss (TEWL) Time course of scratching behavior



Evaluation of antipruritic efficacy

In atopic dermatitis, scratching induced by itching is known to exacerbate the disease; therefore, controlling pruritus is an important therapeutic strategy. As an evaluation of antipruritic efficacy, the suppressive effect of a single subcutaneous administration of the κ -opioid receptor agonist nalfurafine on scratching behavior was investigated using the spontaneous atopic dermatitis NC/Nga mouse model.

