

ラット(アウトブレッド)

Slc:Wistar

系統名：Slc:Wistar

特徴

- ・性質温順で取り扱いやすい
- ・比較的小型で発育良好
- ・環境に対する順応性が高く、生理値が安定している

用途

一般研究用として幅広い分野で使用される

- ・薬理試験¹⁾
- ・安全性試験
- ・免疫および代謝



毛色

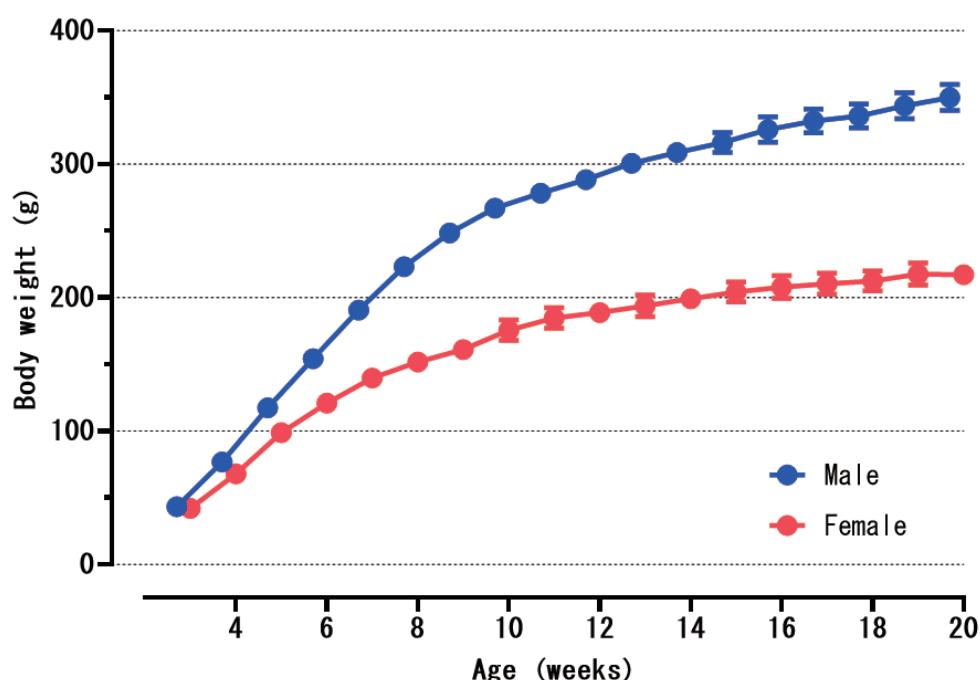
アルビノ

1) Takagi et al. *Clin Exp Pharmacol Physiol*. 2017; 44:305–312..

由来

1968年に東京大学医科学研究所より導入

■体重曲線



		Age (weeks)																		
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Male	Mean (g)	43.3	76.8	117.3	154.4	190.7	223.2	248.5	267.1	278.3	288.4	300.6	308.7	316.2	325.8	332.2	336.0	343.6	349.8	
(n=10)	S.D.	0.9	2.2	4.3	5.4	4.4	5.2	5.8	4.8	4.7	4.8	4.9	6.7	7.6	9.6	9.0	9.1	9.8	9.8	
Female	Mean (g)	42.0	68.1	98.9	121.0	139.7	151.8	161.1	175.5	184.8	188.8	193.7	199.1	204.0	207.8	210.4	212.4	217.6	217.2	
(n=10)	S.D.	1.0	2.8	4.1	5.2	5.4	6.9	6.5	7.8	7.8	7.3	8.2	7.2	7.6	8.7	7.9	7.5	8.3	7.3	

飼料: ラボR-A2 (日本農産工業)

ラット(アウトブレッド)

Strain: Wistar

■血液学的検査

Items	Unit	Male		Female	
		10 weeks n=8	20 weeks n=10	10 weeks n=10	20 weeks n=9
WBC	$\times 10^2/\mu\text{L}$	52.0 ± 14.2	38.1 ± 3.7	29.2 ± 5.4	30.9 ± 5.9
RBC	$\times 10^4/\mu\text{L}$	868.0 ± 35.3	955.6 ± 19.3	802.4 ± 17.1	839.4 ± 20.6
HGB	g/dL	15.0 ± 0.5	15.1 ± 0.2	14.3 ± 0.3	14.6 ± 0.4
HCT	%	44.3 ± 1.5	45.4 ± 0.8	41.6 ± 0.8	42.7 ± 1.0
MCV	fL	51.0 ± 0.9	47.4 ± 0.5	51.9 ± 0.5	50.9 ± 0.8
MCH	pg	17.2 ± 0.2	15.8 ± 0.3	17.8 ± 0.2	17.4 ± 0.2
MCHC	g/dL	33.8 ± 0.5	33.3 ± 0.4	34.3 ± 0.5	34.1 ± 0.5
PLT	$\times 10^4/\mu\text{L}$	81.3 ± 9.5	69.9 ± 6.4	77.2 ± 13.6	75.6 ± 5.1

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

■血液生化学的検査

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=10	20 weeks n=9
AST	U/L	91.8 ± 9.5	101.1 ± 21.6	85.4 ± 8.3	175.8 ± 84.9
ALT	U/L	46.0 ± 6.8	54.5 ± 8.6	39.6 ± 7.0	86.6 ± 41.0
ALP	U/L	873.5 ± 48.5	443.3 ± 58.5	533.8 ± 45.3	252.0 ± 51.8
ALB	g/dL	4.4 ± 0.2	4.2 ± 0.1	4.4 ± 0.2	5.0 ± 0.3
TP	g/dL	5.9 ± 0.3	5.9 ± 0.2	5.7 ± 0.3	6.7 ± 0.4
A/G		3.0 ± 0.2	2.6 ± 0.2	3.4 ± 0.2	3.0 ± 0.2
GLU	mg/dL	149.2 ± 23.0	154.2 ± 22.8	103.0 ± 10.3	127.8 ± 14.1
T-BIL	mg/dL	0.04 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.08 ± 0.01
T-CHO	mg/dL	50.7 ± 4.2	54.6 ± 4.9	72.7 ± 7.1	104.0 ± 8.5
TG	mg/dL	41.7 ± 7.8	63.0 ± 13.8	22.5 ± 5.5	54.7 ± 28.7
PL	mg/dL	91.9 ± 5.9	94.6 ± 6.3	123.3 ± 11.7	182.4 ± 16.1
Ca	mg/dL	9.9 ± 0.3	9.8 ± 0.4	9.8 ± 0.3	10.4 ± 0.3
IP	mg/dL	6.8 ± 0.4	6.2 ± 0.4	7.1 ± 0.7	5.7 ± 0.7
BUN	mg/dL	17.7 ± 2.1	15.6 ± 1.2	17.0 ± 1.3	16.4 ± 1.5
CRE	mg/dL	0.27 ± 0.02	0.26 ± 0.01	0.25 ± 0.02	0.30 ± 0.02
Na	mEq/L	142.8 ± 1.4	143.1 ± 1.1	143.4 ± 0.6	142.4 ± 1.1
K	mEq/L	4.3 ± 0.2	4.2 ± 0.2	3.8 ± 0.4	3.9 ± 0.3
Cl	mEq/L	101.2 ± 1.4	101.8 ± 0.4	103.7 ± 1.3	102.0 ± 1.0

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■器官重量

Items	Unit	Male		Female	
		10 weeks n=10	20 weeks n=10	10 weeks n=9	20 weeks n=10
Body weight	g	257.0 ± 12.7	335.2 ± 7.7	157.9 ± 9.9	207.2 ± 6.7
Absolute organ weight					
Brain	g	1.848 ± 0.101	1.915 ± 0.039	1.627 ± 0.083	1.810 ± 0.084
Heart	g	0.768 ± 0.051	0.896 ± 0.054	0.513 ± 0.038	0.615 ± 0.042
Lung	g	0.939 ± 0.077	1.064 ± 0.038	0.685 ± 0.051	0.824 ± 0.032
Kidney (L)	g	0.887 ± 0.061	1.072 ± 0.068	0.552 ± 0.031	0.649 ± 0.039
(R)	g	0.867 ± 0.085	1.024 ± 0.044	0.538 ± 0.047	0.639 ± 0.034
Spleen	g	0.576 ± 0.052	0.668 ± 0.032	0.421 ± 0.029	0.466 ± 0.038
Liver	g	7.293 ± 0.300	7.979 ± 0.312	4.411 ± 0.344	5.417 ± 0.285
Testis (L)	g	1.457 ± 0.081	1.607 ± 0.035		
(R)	g	1.407 ± 0.063	1.565 ± 0.056		
Ovary (L)	mg			34.1 ± 5.6	37.4 ± 9.4
(R)	mg			35.1 ± 4.1	37.6 ± 7.1
Uterus	g			0.345 ± 0.084	0.430 ± 0.054
Adrenal (L)	mg	24.1 ± 3.5	25.1 ± 2.8	25.3 ± 2.4	26.7 ± 3.0
(R)	mg	19.1 ± 6.4	22.2 ± 2.4	22.6 ± 2.6	25.4 ± 3.1
Thymus	g	0.339 ± 0.041	0.214 ± 0.023	0.312 ± 0.033	0.228 ± 0.032
Pituitary	mg	7.9 ± 1.0	8.1 ± 1.1	8.8 ± 1.7	9.9 ± 2.0
Thyroid gland	mg	14.1 ± 2.9	15.3 ± 4.1	11.4 ± 3.3	12.0 ± 2.0
Salivary gland (L)	g	0.231 ± 0.021	0.268 ± 0.025	0.160 ± 0.014	0.180 ± 0.019
(R)	g	0.230 ± 0.017	0.275 ± 0.021	0.160 ± 0.008	0.175 ± 0.031
Relative organ weight					
Brain	g%	0.72 ± 0.03	0.57 ± 0.01	1.03 ± 0.08	0.87 ± 0.04
Heart	g%	0.30 ± 0.01	0.27 ± 0.01	0.32 ± 0.02	0.30 ± 0.02
Lung	g%	0.37 ± 0.02	0.32 ± 0.01	0.43 ± 0.02	0.40 ± 0.02
Kidney (L)	g%	0.35 ± 0.01	0.32 ± 0.02	0.35 ± 0.02	0.31 ± 0.02
(R)	g%	0.34 ± 0.02	0.31 ± 0.01	0.34 ± 0.02	0.31 ± 0.02
Spleen	g%	0.22 ± 0.02	0.20 ± 0.01	0.27 ± 0.01	0.22 ± 0.01
Liver	g%	2.84 ± 0.12	2.38 ± 0.07	2.79 ± 0.09	2.62 ± 0.20
Testis (L)	g%	0.57 ± 0.02	0.48 ± 0.01		
(R)	g%	0.55 ± 0.02	0.47 ± 0.02		
Ovary (L)	mg%			21.63 ± 3.56	17.97 ± 4.24
(R)	mg%			22.20 ± 2.00	18.11 ± 3.27
Uterus	g%			0.22 ± 0.05	0.21 ± 0.03
Adrenal (L)	mg%	9.39 ± 1.25	7.49 ± 0.82	16.00 ± 1.13	12.90 ± 1.35
(R)	mg%	7.40 ± 2.28	6.62 ± 0.72	14.28 ± 1.27	12.25 ± 1.40
Thymus	g%	0.13 ± 0.01	0.06 ± 0.01	0.20 ± 0.01	0.11 ± 0.01
Pituitary	mg%	3.08 ± 0.42	2.42 ± 0.34	5.60 ± 1.02	4.79 ± 0.98
Thyroid gland	mg%	5.49 ± 1.10	4.56 ± 1.19	7.16 ± 1.93	5.81 ± 0.87
Salivary gland (L)	g%	0.09 ± 0.01	0.08 ± 0.01	0.10 ± 0.01	0.09 ± 0.01
(R)	g%	0.09 ± 0.01	0.08 ± 0.01	0.10 ± 0.00	0.08 ± 0.01

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