RESEARCH MODELS

Rats | Mice | Other rodents

LEWIS Rat

- **Strain name:** LEW/OrlRj
- **Type:** Inbred rat
- **Origin:** CSAL (Orléans) - 1987
- **Colour and related genotype:** Albino rat, *a/a, B/B, Tyr^c/Tyr^c, h/h* - MHC: *RT1^l*
  Erythrocyte antigens: *RT2^a RT3^a* - Lymphocyte antigens: *RT6^a RT7^a*
- **Breeding:** High level of sterility, easy to rear, easy to handle

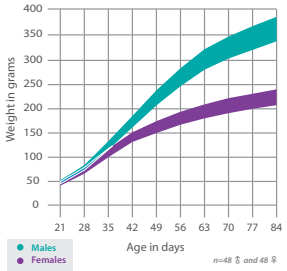
Description of our model

The strain was created by Dr M. LEWIS from WISTAR stock. It was then transferred to APTEKMAN and BOGDEN in 1954 at F20, and then to SILVERS in 1958 at F31. It was used as background in many congenic strains (STARK and KREN, 1969).

LEWIS rat is highly sensitive to the induction of auto-immune disease, such as Experimental Autoimmune Encephalomyelitis (EAE), induced arthritis, glomerulonephritis and experimental myocarditis.

LEWIS rat is also sensitive to Diet-induced obesity and diabetes and streptozocin-induced diabetes.

Growth curve of LEWIS LEW/OrlRj RATS *



* JANVIER LABS 2017 Data, for an indicative basis

Hematological parameters* of 10-week old LEWIS LEW/OrlRj rats		
Parameters	**Male**	**Female**
Erythrocytes (10^{12}/l)	8.1 ± 0.4	8.6 ± 0.3
Hematocrit (l/l)	0.51 ± 0.03	0.54 ± 0.02
Hemoglobin (g/dl)	15.2 ± 0.6	15.3 ± 0.4
Mean corpuscular volume (fl)	63 ± 1	63 ± 1
Mean corpuscular rate (pg)	18.7 ± 0.8	18.0 ± 0.0
Hemoglobin concentration (g/dl)	30 ± 1	28 ± 1
Blood platelets (10^9/l)	869 ± 68	760 ± 133
Leukocytes (10^9/l)	9.6 ± 1.1	7.4 ± 1.0
Neutrophils (10^9/l)	1.12 ± 0.17	0.75 ± 0.18
Lymphocytes (10^9/l)	8.19 ± 1.03	6.46 ± 0.84
Eosinophils (10^9/l)	0.05 ± 0.05	0.07 ± 0.03
Monocytes (10^9/l)	0.14 ± 0.05	0.10 ± 0.04
Basophils (10^9/l)	0.02 ± 0.04	0.02 ± 0.03

Biochemical blood parameters* of 10-week old LEWIS LEW/OrlRj rats		
Parameters	**Male**	**Female**
Glucose (g/l)	2.6 ± 0.7	2.6 ± 0.6
Urea (g/l)	0.4 ± 0.1	0.3 ± 0.0
AST (ASAT) (UI/l)	70 ± 12	79± 28
ALT (ALAT) (UI/l)	50 ± 3	48 ± 6
Alkaline phosphatase (UI/l)	439 ± 20	291 ± 26
Cholesterolaemia (g/l)	1.1 ± 0.1	1.1 ± 0.1
Triglycerides (g/l)	2.8 ± 0.6	1.2 ± 0.3
Creatinine (mg/l)	4.1 ± 0.3	4.1 ± 0.3

Reproductive data*	
Monogamous mating	
Litter size at birth	7.41
Weaning %	93
Productivity index	1.08
Sterility %	9
Gestation time	Between 20 and 23 days

* JANVIER LABS 2013 Data, for an indicative basis

JANVIER LABS
Rodent research models & associated services

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Main application and research fields

- Experimental pathology
- Immunology
- Pharmacology
- Toxicology
- Transplantation

Our added value

- **The « JANVIER LABS Genetic Policy », specific programme, guarantees homozygosity of autosomal pairs.**
- **Animals with the SPF or SOPF standards.**
- **A gentling policy for docile and easy-to-handle animals.**
- **Optimal stability conditions of our models during shipments, thanks to our dedicated and internal transport service.**
- **A scientific support with a team of Veterinarians and PhD.**

The available scientific bibliography:

Research has been conducted, all over the world, from models bred in our laboratories.
Discover our updated bibliography of available studies on our Internet **website, heading: Customer Support.**

Our additional offer

Laboratory Services | Transgenic Services