

WILD TYPE



RAT  
Outbred

GENETICALLY  
ENGINEERED  
MODELS  
(GEM)

## Sprague Dawley Rat

Strain name: RjHan:SD

Type: Outbred rat

Origin: Zentralinstitut für Versuchstierzucht (Hannover) - 1982

Colour and related genotype: Albino rat, Tyr<sup>c</sup>/Tyr<sup>c</sup>

Breeding: Good breeder, strong maternal instinct

NATURAL  
IMMUNO-  
DEFICIENT

NATURAL  
MUTANTS

## Presentation of the model



The strain was created by R. W. Dawley in 1925, from a hooded male hybrid of unknown origin and an albino female (probably Wistar), and was crossed with the female's progeny for 7 generations.

The SPRAGUE DAWLEY® rat is an albino outbred rat with an elongated head and a tail that is longer than its body.

A fast growing rat, it is docile and easy to handle.

Hematological parameters* of 10-week old SPRAGUE DAWLEY® RjHan:SD rats		
Parameters	Male	Female
Erythrocytes (10 <sup>12</sup> /l)	8.5 ± 0.4	8.7 ± 0.2
Hematocrit (l/l)	0.55 ± 0.02	0.55 ± 0.03
Hemoglobin (g/dl)	15.4 ± 0.5	15.7 ± 0.8
Mean corpuscular volume (fl)	65 ± 3	63 ± 1
Mean corpuscular rate (pg)	18.2 ± 0.7	18.0 ± 0.5
Hemoglobin concentration (g/dl)	28 ± 1	29 ± 1
Blood platelets (10 <sup>9</sup> /l)	761 ± 153	751 ± 210
Leukocytes (10 <sup>9</sup> /l)	11.5 ± 2.7	11.5 ± 2.7
Neutrophils (10 <sup>9</sup> /l)	1.56 ± 0.49	1.36 ± 0.37
Lymphocytes (10 <sup>9</sup> /l)	9.35 ± 2.15	9.62 ± 2.39
Eosinophils (10 <sup>9</sup> /l)	0.14 ± 0.03	0.15 ± 0.06
Monocytes (10 <sup>9</sup> /l)	0.31 ± 0.17	0.24 ± 0.10
Basophils (10 <sup>9</sup> /l)	0.11 ± 0.03	0.12 ± 0.03

Reproductive data*	
Monogamous mating according Robertson System	
Litter size at birth	11.9
Weaning %	94.5
Productivity index	3
Sterility %	2
Gestation time	Between 20 and 23 days • D20: 1 % • D21: 16 % • D22: 77 % • D23: 6 %

\* JANVIER LABS 2011 Data, for an indicative basis

Biochemical blood parameters* of 10-week old SPRAGUE DAWLEY® RjHan:SD rats		
Parameters	Male	Female
Glucose (g/l)	1.6 ± 0.1	2.1 ± 0.2
Urea (g/l)	0.4 ± 0.1	0.6 ± 0.1
AST (ASAT) (U/l)	160 ± 37	109 ± 17
ALT (ALAT) (U/l)	71 ± 10	55 ± 16
Alkaline phosphatase (U/l)	357 ± 60	92 ± 25
Cholesterolaemia (g/l)	0.9 ± 0.1	1.1 ± 0.1
Triglycerides (g/l)	1.5 ± 0.4	2.1 ± 0.5
Creatinine (mg/l)	6.1 ± 0.3	5.3 ± 0.8



## Main application and research fields

EXPERIMENTAL SURGERY

GENERAL STUDIES

METABOLISM, NUTRITION

NEUROLOGY | ONCOLOGY

PHARMACOLOGY

PHYSIOLOGY, AGEING

TERATOLOGY | TOXICOLOGY

contact@janvier-labs.com  
Tel +33 (0)2 43 02 11 91  
[www.janvier-labs.com](http://www.janvier-labs.com)

