



WILD TYPE



MICE  
Inbred

GENETICALLY  
ENGINEERED  
MODELS  
(GEM)

NATURAL  
MUTANTS

NATURAL  
IMMUNO-  
DEFICIENT

## 129/Sv Mouse

**Strain name:** 129S2/Rj

**Type:** Inbred mouse

**Origin:** TAAM Orleans (France) - 2012

**Colour and related genotype:**

Agouti mouse with white belly, A<sup>w</sup>/A<sup>w</sup>  
MHC: Haplotype H2<sup>b</sup>

**Breeding:** Difficult to rear



## Presentation of the model

This strain was created at Columbia University in 1928 by Dunn from a crossbreed of coloured stock and chinchilla stock (Tyr<sup>c-ch</sup>) provided by Castle. In 1948, the strain was brought to the Jackson Laboratory (129/ReJ). In 1953 Stevens took it on and began by studying the genetic basis of testicular teratomas in mice from the 129 parental strain. In order to determine the cellular origin of the teratomas he worked on different crossbreeds of 129 stock. His research work resulted in the creation of the substrains "Steel" and "Ter". The 129S2/SvPasOrl strain is a substrain of Steel, resulting from crossbreeding with the C3H-Mgf<sup>sl-j</sup>, followed by 12-14 generations of further crossbreeding with 129/Sv stock. This resulted in mice with agouti pigmentation and white bellies. The steel-J mutation increases the incidence of teratomas by 10%. This strain was brought to Dr J.L. Guenet at the Institut Pasteur in 1970. The 129 family is made up of 3 sub-families with a significant genetic variation. In order to differentiate these sub-families, the new nomenclature in 1999, completed their code by adding a letter for each strain.

As such, the parental substrain is now 129P, the Steel substrain, 129S and the "teratoma" (ter) substrain, 129T. 129S2/SvPasOrlRj mice are carriers of remarkable Ptp<sup>rcb</sup> genes, (= Ly5<sup>b</sup> or CD45.2 or tyrosine protein phosphatase receptor type c, b variant) and Disc1<sup>del</sup> (disrupted in Type 1 schizophrenia). Recessive b mutation (Ptp<sup>rcb</sup>) on chromosome 1 is responsible for auto-immunity, expressed by a rate of only 15% of CD45. Spontaneous mutation (Disc1<sup>del</sup>) is the deletion on chromosome 8 that appears in several strains of the 129 superfamily.

Reproductive data*	
Bigamous mating	
Litter size at birth	4.6
Weaning %	88
Productivity index	0.47
Sterility %	10
Gestation time	Between 18 and 20 days

\* JANVIER LABS 2014 Data, for an indicative basis



## Main application and research fields

### PRODUCTION OF TARGETED MUTATIONS

(numerous strains of stem cells available of 129 origin)

### TRANSGENESIS

### OVARIAN TRANSPLANTS



## 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

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