



RESEARCH MODELS

Rats

Mice

Other rodents



DBA/2 Mouse

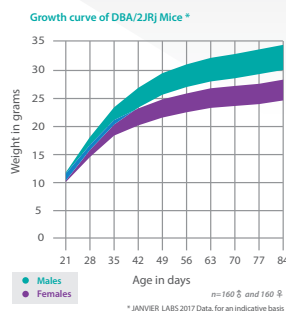
- **Strain name:** DBA/2Jrj
- **Type:** Inbred mouse
- **Origin:** Zentralinstitut für Versuchstierzucht (Hannover) - 1988 (F143)
- **Colour and related genotype:** Dilute brown mouse, *a/a*, *Tyrp1^b/Tyrp1^b*, *Myo5a^d/Myo5a^d* - MHC: Haplotype *H2^d*
- **Breeding:** Difficult to rear (poor lactation)

Description of our model

The DBA is the oldest of all inbred strains of mice. Its story begins in 1909 when Dr. CC LITTLE began inbreeding and selecting for coat color. From 1929 until 1930 crosses were made among substrains, and several new strains were established including DBA/1 and DBA/2.

DBA/1 and DBA/2 differ at a large number of loci (*Car2*, *Ce2*, *Hc*, *H2*, *IF1*, *Lsh*, *Tla*, and *Qa3*) including the MHC (Major Histocompatibility Complex) *H2* Haplotype. This heterozygosity is most likely a result of residual heterozygosity in the strain when the substrains were separated. The strain was sent to Dr MIDLER in 1938, then to the N. I. H. in 1951, then to The Jackson Laboratory in the 1980's. This strain is used in multiple research fields, e.g. in cardiovascular biology or neurobiology. **DBA/2J** are not very sensitive to the development of atherosclerotic lesions of the aorta even following a 14-week atherogenic diet. It shows hearing loss of high frequencies starting at weaning (3-4 weeks); this hearing loss becomes severe by 2-3 months of age. This strain has 3 recessive alleles responsible for this progressive cochlear pathology that starts by affecting the organ of Corti. A decrease in volume of the anteroventral nucleus of the cochlea and the parallel loss of neurons lead to a progressive decrease of peripheral hearing. Young **DBA/2J** inbred mice are susceptible to audiogenic seizures due to the *asp2* mutation; however, this susceptibility decreases as animals reach adulthood. This strain also presents high rates of calcareous pericarditis, calcified lesions of the testicles, tongue and muscles.

Important notice: This strain is homozygous for the *Cdh23^{ah1}* mutation which leads to age-related hearing loss. Its expression on a DBA/2 background results in progressive hearing loss with onset after 3 months of age. There is no *Gpnmbr^{R150X}* (responsible for the iris dispersion) in our **DBA/2Jrj** strain. This mutation first appeared in the 1980's. JANVIER LABS acquired the strain from the Zentralinstitut fuer Versuchstierzucht in Hanover. They in turn held it from The Jackson Laboratory in 1980. Animals transferred then were not carrying the mutation. The *Ptprc^b* (= *Ly5^b* or CD45.2) (protein tyrosine phosphatase receptor type c, b variant) recessive allele on chromosome 1 is present in this strain.



Reproductive data*	
Bigamous mating	
Litter size at birth	4.84
Weaning %	82
Productivity index	0.46
Sterility %	3.5
Gestation time	Between 18 and 20 days

* JANVIER LABS 2011 Data, for an indicative basis



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Main application and research fields

- Behaviour
- Immunology
- Oncology
- Pharmacology
- Toxicology

Our added value

- The « JANVIER LABS Genetic Policy », a 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 services



Laboratory Services



Transgenic Services