WILD TYPE

GENETICALLY ENGINEERED MODELS (GEM)

NATURAL MUTANTS

NATURAL IMMUNO-DEFICIENT

MICE
Inbred

FVB Mouse

Strain name: FVB/NRj

Type: Inbred mouse

Origin: National Institutes of Health (USA) - 1996

Colour and related genotype:
Albino mouse, Tyr^c/Tyr^c, A/A
MHC: Haplotype $H2^q$

Breeding: Good breeder, aggressive male, moderate growth

Presentation of the model

In 1966, 2 strains of NIH SWISS mice, HSFR/N and HSFS/N, were selected based on their resistance or sensitivity, respectively, to histamine following pertussis (whooping cough) vaccination.

At the 8^{th} generation (in 1970), the presence of the Fv1b allele, which induces sensitivity to the B strain of the Friend murine leukemia virus, was highlighted in the HSFS/N strain. Mice homozygous for this allele were inbred thus creating the FVB/N strain. The presence of large pronuclei in the embryos, which helps micro-injection and their large litters contribute to the suitability of the FVB/N strain for transgenesis. When compared to other inbred strains, FVB/N's respiratory system is sensitive to asthma with an important production of antigen-specific IgE antibodies. Its *$H2^q$* MHC haplotype non-withstanding, FVB/N mice are resistant to the induction of arthritis by collagen injection.

FVB/N mice are very active and develop a mild hyperthermia under stress. The FVB/N strain does not develop spontaneous tumours and shows a certain resistance to the chemical induction of papillomas, which, when they do appear, most of the time progress to carcinomas. This strain is homozygous for the *$Pde6b^{rd1}$* allele which leads to retinal degeneration.

Hematological parameters* of 10-week old FVB/NRj mice

Parameters	Male	Female
Erythrocytes (10^{12}/l)	9.6 ± 0.8	9.1 ± 0.3
Hematocrit (l/l)	0.50 ± 0.03	0.49 ± 0.02
Hemoglobin (g/dl)	14.2 ± 1.1	14.1 ± 0.4
Mean corpuscular volume (fl)	53 ± 1	54 ± 1
Mean corpuscular rate (pg)	15.0 ± 0.5	15.4 ± 0.5
Hemoglobin concentration (g/dl)	29 ± 1	29 ± 1
Blood platelets (10^9/l)	1165 ± 240	1073 ± 219
Leukocytes (10^9/l)	9.2 ± 1.5	7.8 ± 1.9
Neutrophils (10^9/l)	1.95 ± 0.37	0.55 ± 0.12
Lymphocytes (10^9/l)	6.53 ± 1.39	6.55 ± 1.76
Eosinophils (10^9/l)	0.21 ± 0.07	0.14 ± 0.07
Monocytes (10^9/l)	0.16 ± 0.06	0.08 ± 0.02
Basophils (10^9/l)	0.06 ± 0.05	0.07 ± 0.04

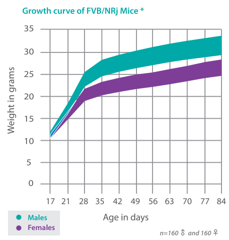
Reproductive data*

Bigamous mating	
Litter size at birth	7.89
Weaning %	93
Productivity index	1.05
Sterility %	10
Gestation time	Between 18 and 20 days

* JANVIER LABS 2013 Data, for an indicative basis

Biochemical blood parameters* of 10-week oldFVB/NRj mice

Parameters	Male	Female
Glucose (g/l)	2.5 ± 0.3	2.5 ± 0.2
Urea (g/l)	0.4 ± 0.0	0.4 ± 0.0
AST (ASAT) (UI/l)	141 ± 42	121 ± 41
ALT (ALAT) (UI/l)	88 ± 16	50 ± 8
Alkaline phosphatase (UI/l)	94 ± 14	104 ± 7
Cholesterolaemia (g/l)	1.6 ± 0.1	1.1 ± 0.2
Triglycerides (g/l)	2.2 ± 0.5	3.8 ± 0.8
Creatinine (mg/l)	4.0 ± 0.0	4.6 ± 0.8



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

Main application and research fields

IMMUNOLOGY

ONCOLOGY

TRANSGENESIS

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