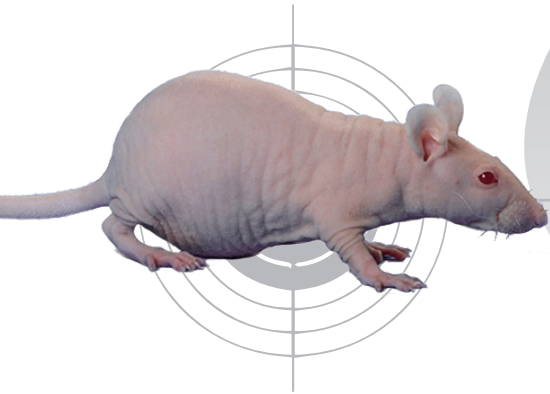


360° MODEL RANGE



Rat Fischer nude

- **Strain name:** F344/HanZtmRj-*Foxn1^{rnu/rnu}*
- **Common name:** FISCHER nude
- **Type:** Mutant rat
- **Origin:** JANVIER LABS, in 2018
- **Colour and related genotype:** Homozygous for the *rnu* gene, nude hair-free, albino.

PRESENTATION OF THE MODEL

The FISCHER nude rat is a rat with a natural *rnu* genetic mutation that causes an absent and non-functional thymus, which is accompanied by a deficient immune system due to a reduced number of T cells produced.

Homozygous rats for this *rnu* spontaneous mutation also have an abnormal hair growth. Pups are born with growth follicles of the hair follicles which appear normal, but quickly their growth turns out to be defective, which results in a hairless skin or on which a fine down remains.

The gene responsible for the mutation was categorized as a member of the Fox gene family and the recommended nomenclature in the rat is the appellation *Foxn1^{rnu}*.

The FISCHER nude rat at JANVIER Labs was obtained by crossing LOU nude (LOU/MRj-*Foxn1^{rnu/rnu}*) and FISCHER (F344/ HanZtmRj) strains followed by 10 crossovers (back cross) with the FISCHER strain in order to fix the genetic background. This new strain is bred in inbreeding mode (inbred). The FISCHER nude rat is useful in experiments requiring tissue transplantation of rat (autologous grafts) or of human origin (heterologous xenografts).

FEATURES

Homozygous females are not considered as breeders. Due to its absence of thymus, immunosuppression in T lymphocytes, FISCHER nude rats are mainly suggested as subjects for cancer studies.

Comparative of immunodeficiency and phenotype in Nude mutants

Strain	Specie	Skin	T Lymph. cells	B Lymph. cells	NK cells	Mode
FISCHER nude	Rat	Nude	Absent	Present	Present	Inbred
ATHYMIC nude	Rat	Nude	Absent	Present	Present	Outbred
LOU nude	Rat	Nude	Absent	Present	Present	Inbred

Main application and research fields

- ✕ Immunology
- ✕ Oncology
- ✕ Transplantation
- ✕ Experimental infections