MOLF/EiJ, MOLD/RkJ and MOLG/DnJ were derived from wild mice trapped in Kyushu, Japan. MOLF carries a Tlr3 variant that results in hypo-responsiveness to poly(I:C) stimulation. Wild-derived mice are genetically distinct from common laboratory mice for a number of complex phenotypic characteristics and are valuable tools for genetic mapping, evolution and systematics research.

GENETIC OVERVIEW

Genetic Background
Generation
F33
(2020-05-08 00:00:00)

RESEARCH APPLICATIONS

Research Tools
Sensorineural Research
Metabolism Research
Immunology, Inflammation and Autoimmunity Research
Mouse/Human Gene Homologs

BASE PRICE

Starting at:
$236.78 Domestic price for female 4-week
**Details**

**Important Note**

This strain is homozygous for the retinal degeneration allele *Pde6b*<sup>rd1</sup>.

**Detailed Description**

MOLF/EiJ, MOLD/RkJ and MOLG/DnJ were derived from wild mice trapped in Kyushu, Japan. Stephan et al. reported that wild-derived strains, MOLF, CZECH (Stock No. 001144) and MSM (Stock No. 003719), exhibit decreased secretion of TNF in response to stimulation by poly(I:C) (a synthetic analog of double-stranded RNA), the result of a P369L substitution in *Tlr3*. Response to *Tlr2*, *Tlr4* and *Tlr7*-agonists is normal.

A 7 base pair deletion was reported in the *Cd4* 5' untranslated region of MOLF/EiJ (Wade et al. 1993, Capparelli et al. 2004). Subsequent testing at The Jackson Laboratory indicated that MOLC/EiJ, MOLD/EiJ and MOLG/EiJ also carry the variant sequence. The deletion is not believed to affect gene expression.

Wild-derived mice are genetically distinct from common laboratory mice for a number of complex phenotypic characteristics and are valuable tools for genetic mapping, evolution and systematics research.

In 2019-2020, researchers at The Jackson Laboratory discovered this inbred strain contains the *Trem2<sup>S148E</sup>* allele - a naturally occurring variant at position 48351151-48351152 on Chr 17 (rs108080490 and rs107649577; Ensembl GRCm38.p6). This TC to GA transition results in a serine to glutamic acid substitution at amino acid 148 (S148E).

**Development**

**Selected References**

**Genetics**

* **A<sup>MOLF</sup>**
* **Hc<sup>0</sup>**
* **Ahr<sup>b-3</sup>**
* **Pde6b<sup>rd1</sup>**
* **Cox7a2<sup>l</sup>**

**Disease/Phenotype**
Breeding Considerations

These mice are small and often need to wait until 4 weeks of age to wean.

Additional Breeding and Husbandry Support

Mating System
Sibling x Sibling
Appearance
white-bellied agouti
Related Genotype: A<sup>W</sup>/A<sup>W</sup>

Citation
When using the MOLF/EiJ mouse strain in a publication, please include JAX stock #000550 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

- AX11 (Maximum)

Pricing & Availability

Live mice available in varying quantities. Ask Customer Service for details.
### Live Mouse

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