

Resource Summary Report

Generated by [NIF](#) on Aug 4, 2026

AKR/J

RRID:IMSR_JAX:000648

Type: Organism

Proper Citation

RRID:IMSR_JAX:000648

Organism Information

URL: <https://www.jax.org/strain/000648>

Proper Citation: RRID:IMSR_JAX:000648

Description: Mus musculus with name AKR/J from IMSR.

Species: Mus musculus

Synonyms: Soat1. AK

Notes: gene symbol note: interleukin 3 receptor; alpha chain|aryl-hydrocarbon receptor|TYRO3 protein tyrosine kinase 3|cadherin related 23 (otocadherin)|8-oxoguanine DNA-glycosylase 1|hemolytic complement|hemoglobin beta chain complex|latent transforming growth factor beta binding protein 4|CD5 antigen|obesity QTL 4|resistance to MCF virus|MX dynamin-like GTPase 1|cytochrome c oxidase subunit 7A2 like|beta-2 microglobulin|sterol O-acyltransferase 1|obesity QTL 3; inbred strain: Il3ra|Ahr|Tyro3|Cdh23|Ogg1|Hc|Hbb|Ltbp4|Cd5|Obq4|Rmcf|Mx1|Cox7a2|B2m|Soat1|Obq3

Affected Gene: interleukin 3 receptor; alpha chain|aryl-hydrocarbon receptor|TYRO3 protein tyrosine kinase 3|cadherin related 23 (otocadherin)|8-oxoguanine DNA-glycosylase 1|hemolytic complement|hemoglobin beta chain complex|latent transforming growth factor beta binding protein 4|CD5 antigen|obesity QTL 4|resistance to MCF virus|MX dynamin-like GTPase 1|cytochrome c oxidase subunit 7A2 like|beta-2 microglobulin|sterol O-acyltransferase 1|obesity QTL 3

Genomic Alteration: mutation 1|d variant|age related hearing loss 1|deficient|d|Duchenne modifier 1 susceptible|b variant|AKR/J|MCF sensitive|myxovirus susceptibility 1|long|a variant|adrenocortical lipid depletion

Catalog Number: JAX:000648

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: AKR/J

Record Creation Time: 20250513T053620+0000

Record Last Update: 20260801T050325+0000

Ratings and Alerts

No rating or validation information has been found for AKR/J.

No alerts have been found for AKR/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 198 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Wang R, et al. (2025) Human placenta mesenchymal stromal cells alleviate intestinal inflammation and repair intestinal barrier function by activating AMPK-FXR pathway. Communications biology, 8(1), 830.

Berlin P, et al. (2025) Perioperative anti- α 5 β 1 Integrin Blockade Alters Wound Cell Infiltrate but Not the Functional Outcome of Ileocecal Anastomoses in Mice With Crohn's-like Ileitis. Inflammatory bowel diseases, 31(12), 3385.

Ross CR, et al. (2025) Genetic background and oncogenic driver determines the genomic evolution and transcriptomics of mammary tumor metastasis. Communications biology, 8(1), 1224.

Guerra LA, et al. (2025) Genetic variation in RYR1 is associated with heart failure progression and mortality in a diverse patient population. Frontiers in cardiovascular medicine, 12, 1529114.

Ren W, et al. (2025) A tandem repeat atlas for the genome of inbred mouse strains: A genetic variation resource. iScience, 28(11), 113703.

Bauer-Rowe KE, et al. (2025) Creeping fat-derived mechanosensitive fibroblasts drive intestinal fibrosis in Crohn's disease strictures. Cell.

Benjamin KJ, et al. (2024) Cell type-specific expression of angiotensin receptors in the human lung with implications for health, aging, and chronic disease. *bioRxiv : the preprint server for biology*.

Verdugo-Sivianes EM, et al. (2024) MEG8 as an antagonistic pleiotropic mechanism in breast cancer. *Cell death discovery*, 10(1), 509.

Liu C, et al. (2024) Short-chain fatty acids enhance muscle mass and function through the activation of mTOR signalling pathways in sarcopenic mice. *Journal of cachexia, sarcopenia and muscle*, 15(6), 2387.

Ward GA, et al. (2024) Epigenetic Priming by Hypomethylation Enhances the Immunogenic Potential of Tolinapant in T-cell Lymphoma. *Cancer research communications*, 4(6), 1441.

Baschant U, et al. (2024) Effects of dietary iron deficiency or overload on bone: Dietary details matter. *Bone*, 184, 117092.

Choi J, et al. (2024) ARNT2 controls prefrontal somatostatin interneurons mediating affective empathy. *Cell reports*, 43(9), 114659.

Lulek CF, et al. (2023) Sex differences in acute delta-9-tetrahydrocannabinol (Δ^9 -THC) response and tolerance as a function of mouse strain. *Psychopharmacology*, 240(9), 1987.

Durán A, et al. (2023) A Mouse Systems Genetics Approach Reveals Common and Uncommon Genetic Modifiers of Hepatic Lysosomal Enzyme Activities and Glycosphingolipids. *International journal of molecular sciences*, 24(5).

Sikora M, et al. (2023) MiR-21-5p regulates the dynamic of mitochondria network and rejuvenates the senile phenotype of bone marrow stromal cells (BMSCs) isolated from osteoporotic SAM/P6 mice. *Stem cell research & therapy*, 14(1), 54.

Metwaly A, et al. (2023) Diet prevents the expansion of segmented filamentous bacteria and ileo-colonic inflammation in a model of Crohn's disease. *Microbiome*, 11(1), 66.

Polonio AM, et al. (2023) Impaired telomere pathway and fertility in Senescence-Accelerated Mice Prone 8 females with reproductive senescence. *Aging*, 15(11), 4600.

Andreeva TV, et al. (2023) An Analysis of Genetic Predisposition to Hereditary Catalepsy in a Mouse Model of Neuropsychiatric Disorders Using Whole-Genome Sequencing Data. *Acta naturae*, 15(1), 26.

Khan AH, et al. (2023) Genetic pathways regulating the longitudinal acquisition of cocaine self-administration in a panel of inbred and recombinant inbred mice. *Cell reports*, 42(8), 112856.

Fan J, et al. (2022) Transplantation of bone marrow cells from miR150 knockout mice improves senescence-associated humoral immune dysfunction and arterial stiffness. *Metabolism: clinical and experimental*, 134, 155249.