Also Known As: SW, swiss

SWR/J mice are used widely in research as a general purpose strain. Aging mice exhibit a high incidence of lung and mammary gland tumors. They also develop extreme polydipsia and polyuria (nephrogenic diabetes insipidus) with increasing age. SWR/J mice are highly susceptible to experimental allergic encephalomyelitis. SWR/J mice show an intermediate susceptibility to developing atherosclerotic aortic lesions following an atherogenic diet. SWR/J mice are useful for creation of transgenic mice because they are high responders to exogenous hormones and have large and prominent pronuclei with good resistance to lysis following microinjection. SWR/J mice appear to be the only inbred carrying the allele Soa<sup>a</sup> (Taster) characterized by avoidance of sucrose octaacetate solutions at low concentrations.

### GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
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<td><strong>Contact Technical Support</strong></td>
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RESEARCH APPLICATIONS
Metabolism Research
Research Tools
Immunology, Inflammation and Autoimmunity Research
Sensorineural Research
Mouse/Human Gene Homologs
Diabetes and Obesity Research
Developmental Biology Research
Cancer Research

BASE PRICE
Starting at:
$112.53 Domestic price for male 3-week

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

Detailed Description
SWR/J mice are used widely in research as a general purpose strain. Aging mice exhibit a high incidence of lung and mammary gland tumors. They also develop extreme polydipsia and polyuria (nephrogenic diabetes insipidus) with increasing age. SWR/J mice are highly susceptible to experimental allergic encephalomyelitis (EAE). Germline deletion of about 50% of T-cell receptor V beta-chain gene segments and a T-cell receptor V alpha polymorphism are responsible for the resistance of SWR/J mice to collagen type II-induced arthritis. SWR/J mice show an intermediate susceptibility to developing atherosclerotic aortic lesions (1670 to 1690 um<sup>2</sup>) atherosclerotic aortic lesions/aortic cross-section) following 14 weeks on an atherogenic diet (1.25% cholesterol, 0.5% cholic acid and 15% fat). SWR/J mice have been recommended for generation and propagation of transgenic mice because they are high responders to exogenous hormones, have large and prominent pronuclei with good resistance to lysis following microinjection, and are genetically well-defined. SWR/J mice may also be used as controls for comparison to the autoimmune diabetic NOD/ShiLtJ mice (Stock No. 001976), especially for experiments examining the aberrant immune functions of NOD/ShiLtJ mice. Both NOD and SWR/J mice are derived from Swiss mice. SWR/J are in some cases more suitable than random bred Swiss ICR mice because of their genetic uniformity. Unlike NOD/ShiLtJ mice they are not immunocompromised, and they are genetically very different from NOD. SWR/J mice appear to be the only inbred carrying the allele *Soa<sup>a</sup>* (Taster) characterized by avoidance of sucrose octaacetate solutions at low concentrations (< 10<sup>-3</sup> M).
Genetics

- **Pde6b<sup>rd1</sup>**
- **Ahr<sup>d</sup>**
- **Hc<sup>0</sup>**
- **Disc<sub>1</sub><sup>del</sup>**

Disease/Phenotype

- **Disease Terms**
- **Research Areas By Phenotype**
- **Mammalian Phenotype Terms by Genotype**
- **Phenotype Information**
- **References**

Technical Support

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**Genotyping Protocols**

**Genotyping resources and troubleshooting**

Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.
Dietary Information
LabDiet® 5K52 formulation (6% fat)
Breeding Considerations
This strain is an exceptional breeder.

Additional Breeding and Husbandry Support
Mating System
Sibling x Sibling

Appearance
albino

Related Genotype: A/A Tyr<sup>c</sup>/Tyr<sup>c</sup>

Citation
When using the SWR/J mouse strain in a publication, please include JAX stock #000689 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

- AX5 (Standard)

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**Pricing & Availability**

Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.

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**Domestic**

Pricing effective for USA, Canada and Mexico shipping destinations

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<th>AGE</th>
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PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

THE JACKSON LABORATORY’S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain’s phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee breeding performance and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

Terms Of Use

TERMS OF USE

Q U E S T I O N S  A B O U T  T E R M S  O F  U S E

LICENSING INFORMATION

Phone: 207-288-6470
Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene