B6;129S4-Col1a1<sup>tm1jae</sup>/J

**Stock No:** 002495

- **Targeted Mutation**

**CRYO RECOVERY**

- Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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**Overview**

These Col1α1 targeted mutant mice develop fibrosis in the dermis characterized by a thickening and roughening of the skin.

**Donating Investigator**

Dr. Rudolf Jaenisch, Whitehead Institute (MIT)
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col1a1^tm1Jae</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted</td>
<td>Col1a1</td>
<td>collagen, type I, alpha 1</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

- Dermatology Research
- Developmental Biology Research
- Reproductive Biology Research
- Cardiovascular Research

**BASE PRICE**
Starting at:

$2,595.00 Domestic price Cryo Recovery

**Details**

**Detailed Description**

Homozygous mice are viable and develop to young adulthood without obvious differences from wildtype mice. As the mice age they develop fibrosis in the dermis characterized by a thickening and roughening of the skin, which is similar to that seen in human scleroderma. Homozygous females develop postpartum abnormalities of the uterus caused by a failure of collagen resorption. They have slightly reduced litter sizes and significantly fewer litters than normal wildtype mice. A secondary collagenase cleavage site was found in the mutant protein that could be cleaved by rat collagenase but not by human collagenase.

**Development**

**Control Suggestions**

**Selected References**
Genotyping Protocols
Restriction Enzyme Digest: Col1a1<sup>tm1Jae</sup>
Sanger sequencing: Col1a1<sup>tm1Jae</sup> SEQ-Alternate 2
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as homozygotes. These mice have slightly reduced litter sizes and significantly fewer litters than normal wildtype mice.
Additional Breeding and Husbandry Support

Appearance
white-bellied agouti
Related Genotype: A<sup>W</sup>/A<sup>W</sup>

Citation
When using the B6-129S4-Col1a1<sup>tm1Jae</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #002495 in your Materials and Methods section.

Animal Health Reports
Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

### Related Products and Services

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
<td>$2,595.00 per straw or vial</td>
</tr>
</tbody>
</table>

### 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.

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Licensing Information

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

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| All |

| By Allele |

| By Gene |