129S-Cyp4a14 \( ^{\text{im1hc}} \)/J

Stock No: 007175

Targeted Mutation

REQUEST CRYORECOVERY

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

Overview

These “Cyp 4a14” mutant mice may be useful studying kidney function and metabolism, cardiovascular physiology, hypertension, and the relationships between blood pressure, sex hormones, and p450 -hydroxylases.

Donating Investigator

Jorge H. Capdevila, Vanderbilt University Medical School

READ MORE +
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Cyp4a14&lt;sup&gt;1m1Jhc&lt;/sup&gt;</td>
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</table>

**Allele Type**
Targeted (Null/Knockout)

**Gene Symbol**
Cyp4a14

**Gene Name**
cytochrome P450, family 4, subfamily a, polypeptide 14

**RESEARCH APPLICATIONS**
Cardiovascular Research
Internal/Organ Research
Endocrine Deficiency Research
Research Tools

**BASE PRICE**
Starting at:
$2,595.00 Domestic price Cryo Recovery

**Details**

**Detailed Description**
Mice homozygous for this "Cyp 4a14" mutant allele are viable and fertile. Homozygous deficiency of the targeted gene leads to spontaneous hypertension (more severe in males) that is androgen-sensitive. Homozygotes also exhibit other interrelated metabolic and regulatory effects; increased renal vascular resistance, impaired renal hemodynamics, elevated plasma androgens (5 - dihydrotestosterone (DHT) and testosterone), upregulated Cyp4a12 gene expression, and increased formation of prohypertensive 20-HETE. These "Cyp 4a14" mutant mice may be useful studying kidney function and metabolism, cardiovascular physiology, hypertension, and the relationships between blood pressure, sex hormones, and p450 -hydroxylases.

**Development**

**Control Suggestions**

**Selected References**
Genotypes

Cyp4a14^{tm1.jhc}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Standard PCR: Cyp4a14^{tm1.jhc}
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, homozygous mice can be bred together.
Additional Breeding and Husbandry Support

Citation
When using the 129S6-Cyp4a14^{tm1.jhc} mouse strain in a publication, please cite the originating article(s) and include JAX stock #007175 in your Materials and Methods section.

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

Pricing & Availability

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

Domestic
International
Pricing effective for USA, Canada and Mexico shipping destinations

Cryorecovery - Domestic Pricing
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 can be used 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.

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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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**Terms of Use**

*General Terms and Conditions*

**Additional Use Restrictions Apply**

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**Licensing Information**

*Phone: 207-288-6470*

*Email: TechTran@jax.org*

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