B6.129P2-Pin1<sup>tm1Tuc</sup>/HoytArmJ

Stock No: 025883

Congenic, Targeted Mutation

CRYO RECOVERY

**PLACE ORDER**

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

**Overview**

These Pin1 knock-out mice develop increased levels of insoluble amyloid beta42 and have reduced cytokine expression. These mice may be suitable for use in studies related to Alzheimer Disease and Type 1 immune responses.
The Pin1 gene encodes for a peptidyl-prolyl cis/trans isomerase which is involved in regulation of cell proliferation and cell survival as well as proline-directed kinase signaling. These mice carry a knock out allele for the Pin1 gene, in which the entire coding region (exons 1 through 4 and flanking sequence) has been replaced by a NEO cassette. No gene product (protein) is detected by Western blot analysis of MEFs from homozygous embryos aged E13.5.

Mice that are heterozygous for the targeted mutation are viable and fertile. Homozygotes on the congenic C57BL/6 background are infertile due to impaired primordial germ cell development. Homozygous males exhibit testicular atrophy due to seminiferous-tubule degeneration. Homozygous females and the mammary glands do not undergo ductal proliferation during pregnancy. Knockout mice
on the mixed B6;129P2 background develop increased levels (32% more) of insoluble amyloid beta42 in the brain by 15 months of age when compared to similarly aged wild-type mice. On the mixed B6;129P2 background, homozygotes develop motor impairment and half exhibit age dependent retinal degeneration. Cytokine expression and Type 1 immune response is reduced in homozygotes. In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development

Control Suggestions

Selected References

Genetics

Pin1\textsuperscript{\textit{Im1Tuc}}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Separated PCR: Pin1\textsuperscript{\textit{Im1Tuc}}_\text{alternate1}
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, heterozygous mice may be bred together, to wildtype siblings, or to C57BL/6J inbred mice (Stock No. 000664). Homozygotes on the congenic C57BL/6 background are infertile.
Additional Breeding and Husbandry Support

Citation
When using the B6;129P2 Pin1\textsuperscript{\textit{Im1Tuc}}/HoyArmJ mouse strain in a publication, please cite the originating article(s) and include JAX stock #025883 in your Materials and Methods section.
Facility Barrier Level Descriptions
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.

<table>
<thead>
<tr>
<th>Domestic</th>
<th>International</th>
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<tr>
<td>Pricing effective for USA, Canada and Mexico shipping destinations</td>
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**Cryorecovery - Domestic Pricing**

<table>
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<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or wildtype for Pin1&lt;tm1Tuc&gt;</td>
<td>$2,595.00</td>
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</table>

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**

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

**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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Terms of Use

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

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