STOCK Drd1\(\text{tm}^{1,cd}\)/J

Stock No: 002322 | D1A- 

Targeted Mutation

PLACE ORDER

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

Overview

Also Known As: D1A-

These Drd1 knock-out mice exhibit mutation exhibit growth retardation, down-regulated expression of dynorphin and substance P, along with behavioral anomalies. They are suitable for use in applications related to the study of dopamine receptors.

Donating Investigator

Dr. Heiner Westphal, National Institutes of Health

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GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Drd1&lt;sup&gt;tm1.Jcd&lt;/sup&gt;</td>
<td></td>
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<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Drd1</td>
<td>dopamine receptor D1</td>
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RESEARCH APPLICATIONS

Neurobiology Research

BASE PRICE

Starting at:

$2,864.50 Domestic price Cryo Recovery

Details

Detailed Description
Mice homozygous for the Drd1<sup>tm1.Jcd</sup> targeted mutation exhibit growth retardation and show down-regulated expression of dynorphin and substance P. They also show behavioral anomalies in spatial learning, movement initiation, and responses to new stimuli. Administration of cocaine to homozygotes does not activate locomotion or up-regulate immediate early gene (IEG) expression; however, dopamine receptor-2-dependent IEG changes are intact. Acute cocaine administration increases substance P levels. Failure of locomotor activation is also seen with repeated amphetamine treatment. Dopamine receptor D1a deficient mice do retain cocaine-conditioned place preference. Please Note: Growth retardation, which may be due to abnormal or delayed tooth formation, is avoided if homozygotes are fed either hydrated or crushed grain from ~2-10 weeks of age. Homozygotes do appear thinner than wildtypes and have a very slight halting gait (unpublished observations, The Jackson Laboratory). Heterozygous mice are unaffected.

Development

Control Suggestions

Selected References

Genetics
### Genotyping Protocols
Standard PCR: Drd1a^{tm1Jcd}
Genotyping resources and troubleshooting

### Breeding Considerations
This strain is maintained by mating homozygous siblings.
Additional Breeding and Husbandry Support

### Citation
When describing the Drd1a^{tm1Jcd} strain in a publication, please cite the originating article(s) and include JAX stock #002322 in your Materials and Methods section.

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

### Pricing & Availability

Cryo Recovery - 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 for Drd1a^{tm1Jcd}</td>
<td>$2,854.50</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.

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- All
- By Allele
- By Gene
- By Collection

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TOMORROW'S CURES