B6(129)-Duox2 thyd/J

Stock No: 005543 | thyroid dyshormonogenesis

Spontaneous 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

Also Known As: thyroid dyshormonogenesis

These mice carry a recessive spontaneous mutation of the Duox2 gene that results in a defect in thyroid hormone synthesis.

READ MORE +

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Duox2&lt;sup&gt;thyd&lt;/sup&gt;</td>
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<tr>
<td>Allele Type</td>
<td>Gene Symbol</td>
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<tr>
<td>Spontaneous</td>
<td>Duox2</td>
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### RESEARCH APPLICATIONS
- Neurobiology Research
- Sensorineural Research
- Mouse/Human Gene Homologs
- Endocrine Deficiency Research
- Reproductive Biology Research
- Internal/Organ Research

### BASE PRICE
Starting at:

$2,595.00 Domestic price
Cryo Recovery

### Details

#### Detailed Description

The mouse Duox2<sup>thyd</sup> mutation provides a genetic model for studying the specific function of DUOX2 in the thyroid gland and in other organ systems where it is hypothesized to play a role. The Duox2<sup>thyd</sup> mutation is mapped to chromosome 2 and identified as a T>G base pair change in exon 16 of Duox2. The mutation changes a highly conserved valine to glycine at amino acid position 674 (V674G) and was named “thyroid dyshormonogenesis” to signify a defect in thyroid hormone synthesis. Thyroid glands of mutant mice are goitrous and contain few normal follicles, and anterior pituitaries are dysplastic. Serum T(4) in homozygotes is about one-tenth the level of controls and is accompanied by a more than 100-fold increase in TSH. The weight of adult mutant mice is approximately half that of littermate controls, and serum IGF-I is reduced. The cochleae of mutant mice exhibit abnormalities characteristic of hypothyroidism, including a delayed formation of the inner sulcus and tunnel of Corti and an abnormally thickened tectorial membrane. Hearing thresholds of adult mutant mice are on average 50-60 decibels (dB) above those of controls.

#### Development

#### Control Suggestions

#### Selected References
Genotyping Protocols
Sanger sequencing: Duox2^{thym}
Genotyping resources and troubleshooting

Citation
When using the JAX J2/kypros/kypros homozygous strain in a publication, please cite the originating article(s) and include JAX stock number in your Materials and Methods section.

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

Pricing & Availability

<table>
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<th>Domestic Pricing</th>
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<td>SERVICE</td>
<td>GENOTYPE</td>
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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.

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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

QUESTIONS ABOUT TERMS OF USE

### Licensing Information

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

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Leading the search for

TOMORROW'S CURES