MOUSE STRAIN DATASHEET - 017678

FVB;129 Brcdn1ub Tg(PrrnPSNCA* A53T)AAub/J

Targeted Mutation

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

This double mutant strain expresses mutant human A53T alpha-synuclein (SNCA) and carries a targeted mutation for Pink1, PTEN induced putative kinase 1, and has applications in studies of the early stages of Parkinson's Disease.

Donating Investigator

Georg Auburger, University Medical School

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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</thead>
<tbody>
<tr>
<td>Tg(Prnp-SNCA*A53T)AAub</td>
<td></td>
</tr>
<tr>
<td>Allele Type</td>
<td>Transgenic (Inserted expressed sequence, Humanized sequence)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Pink1tm1Aub</td>
<td>Pink1</td>
<td>PTEN induced putative kinase 1</td>
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RESEARCH APPLICATIONS

Neurobiology Research

BASE PRICE

Starting at: $2,854.50 Domestic price Cryo Recovery
Details

Detailed Description

These double mutant mice overexpress the mutant A53T human SNCA, synuclein, alpha (non A4 component of amyloid precursor), and are deficient in endogenous mouse Pink1, PTEN induced putative kinase 1. Mice that are homozygous for both the transgene and the Pink1<sup>tm1Aub</sup> allele develop a behavior phenotype at 3 months of age, consisting of impaired spontaneous locomotion in open field tests for horizontal and vertical activity. This behaviour deficit appears much later also in the single mutant mice. In addition, the brain transcriptome profile in striatum of homozygous double mutants shows many consistent early alterations in the pathways of trophic signaling to mitochondria and apoptosis, which are not apparent in the transcriptome profiles of single mutants.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(Prnp-SNCA*A53T)AAub

Pink1<sup>tm1Aub</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
QPCR: Tg(Prnp-SNCA*A53T)AAub
Probe: Generic Cre
Separated PCR: Pink1 tm1Aub
Separated MCA: Pink1 tm1Aub
Separated PCR: Tg(Prnp-SNCA*A53T)AAub
Standard PCR: Generic Cre
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as homozygotes for both the targeted mutation and the transgene.
Additional Breeding and Husbandry Support

Citation
When using the FVB;129-Pink1 tm1Aub Tg(Prnp-SNCA*A53T)AAub/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #017678 in your Materials and Methods section.

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.

Domestic

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Pink1 tm1Aub, Hemizygous for Tg(Prnp-SNCA*A53T)AAub</td>
<td>$2,854.50</td>
</tr>
</tbody>
</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 | FVB.129-Pink1 tm1Aub Tg(Prnp-SNCA*A53T)AAub/J Frozen Embryo | $2595.00   |

Payment Terms and Conditions
Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are
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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

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

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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains