C3H/HeSn-Rab27a<sup>ash</sup>/J

Stock No: 000120 | ashen

Coisogenic, Spontaneous Mutation

CRYO RECOVERY

REQUEST CRYORECOVERY

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

Overview

Also Known As: C3H/HeSn-Rab27a<sup>ash</sup>, ashen

Ashen mice have a lightened coat color that is gray on a non-agouti background similar to that of dilute (Myo5a<sup>Δ</sup>) or leaden (Ln) mutants. Lane and Womack reported that on an agouti background the yellow pigment is more dilute in ashen mice resulting in a grayer agouti than that found in dilute or leaden mice, but Wu et al. subsequently reported that dilute and ashen mice have identical degrees of coat color dilution. This pigment dilution results from defective trafficking of melanosomes that are normally found throughout the dendrites of melanocytes. Similar to that seen in leaden mutants, ashen melanosomes are clumped around the nucleus and sparse in the dendrites where normally they are released. Melanosome trafficking from the melanocyte cell body to the ends of the dendrites results from a microtubule-based bidirectional transport. MYO5A is essential for retaining the melanosomes in
the ends of the dendrites and preventing their retrograde transport back t...

GENETIC OVERVIEW

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<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>Rab27a&lt;sup&gt;ash&lt;/sup&gt;</td>
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**Allele Type**
- Spontaneous

**Gene Symbol**
- Rab27a

**Gene Name**
- RAB27A, member RAS oncogene family

RESEARCH APPLICATIONS

- Dermatology Research
- Hematological Research
- Immunology, Inflammation and Autoimmunity Research
- Cell Biology Research
- Mouse/Human Gene Homologs

BASE PRICE

Starting at:

$2,595.00 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Ashen mice have a lightened coat color that is gray on a non-agouti background similar to that of dilute (Myo5a<sup>d</sup>) or leaden (In) mutants. Lane and Womack reported that on an agouti background the yellow pigment is more dilute in ashen mice resulting in a grayer agouti than that found in dilute or leaden mice, but Wu et al. subsequently reported that dilute and ashen mice have identical degrees of coat color dilution. This pigment dilution results from defective trafficking of melanosomes that are normally found throughout the dendrites of melanocytes. Similar to that seen in leaden mutants, ashen melanosomes are clumped around the nucleus and sparse in the dendrites where normally they are released. Melanosome trafficking from the melanocyte cell body to the ends of the dendrites results from a microtubule-based bidirectional transport. MYO5A is essential for retaining the melanosomes in the ends of the dendrites and preventing their retrograde transport back toward the cell body. In ashen mice MYO5A fails to colocalize with melanosomes indicating that RAB27A is required in some way to facilitate this association. (Lane and Womack, 1979; Wu et al.,
Ashen mice have increased bleeding times and their platelets have fewer platelet dense granules and less serotonin than normal. This has not been reported for leaden or dilute mice. Diminished target cell lysis is found using ashen CTLs and NK cells. This is due to diminished granule exocytosis although Fas-Fas ligand mediated CTL cytotoxicity appears to be normal. Polarization of these ashen lytic granules is normal, but they fail to dock at the target membrane. Mice with the dilute mutation have normal CTL activity. (Wilson et al., 2001; Haddad et al., 2001; Stinchcombe et al., 2001.)

Griscelli syndrome in humans is characterized by pigmented dilution of the skin and hair due to defective melanosome release from melanocytes. This syndrome has been associated with mutations in either RAB27A or MYO5A. In cases with mutations in RAB27A the disease does not have a neurological component, but does include haemophagocytic syndrome, a severe activation of T cells and macrophages. In cases with mutations in MYO5A the disease includes severe neurological impairment but no immunological defects. This variation in disease phenotype is paralleled in mice with mutations in these genes. Thus, certain mutations in Myo5a are models for Griscelli syndrome with neurologic impairment and the ashen mutation (Rab27a<sup>ash</sup>) is a model for Griscelli syndrome with hemophagocytic syndrome. (Manasche et al., 2000; Pastural et al., 2000.)
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>Cryorecovery - Domestic Pricing</td>
<td>Pricing effective for USA, Canada and Mexico shipping destinations</td>
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<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Homozygous for Rab27a&lt;ash&gt;</td>
<td>$2,595.00</td>
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</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 | $2,595.00 per straw or vial |

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Terms Of Use
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