Overview

These mice carry a spontaneous mutation at the Ttc7 locus characterized by pathologic changes in the skin yielding a papulosquamous disease resembling human psoriasis.

GENETIC OVERVIEW

GENETIC BACKGROUND

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Ttc7&lt;sup&gt;fsn&lt;/sup&gt;</td>
<td></td>
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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Spontaneous</td>
<td>Ttc7</td>
<td>tetratricopeptide repeat domain 7</td>
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</table>

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Hematological Research
Internal/Organ Research
Dermatology Research
Endocrine Deficiency Research

BASE PRICE

Starting at:
Homozygous fsn mice suffer from hypochromic and normocytic anemia at birth which becomes more severe with age. The anemia makes the homozygous mice distinguishable as pups because of the pale color of ears and eyes. At 2 weeks of age focal epidermal hyperplasia and inflammation is evident with psoriasiform skin lesions becoming confluent and diffuse in 3-4 week old weanlings. The skin lesions progress to generalized alopecia and shedding of thick white scales. The gross lesions are accompanied by thickening and keratinization of the skin. A progressive papulosquamous disease ensues which is a model for some forms of psoriasis. fsn/fsn mice show hematocrit levels and red blood cell counts that are significantly decreased from birth through adulthood. Consequently the heart, liver and spleen become enlarged but the thymus weight is less than half normal. As the spleen enlarges, the mice also develop a potbellied appearance aiding in homozygous fsn identification. Gastric papillomas are found in the forestomach of fsn homozygotes but there is no papillomavirus associated with the lesions. Examination by scanning electron microscopy reveals a greatly thickened epidermis, sparsity of hairs and scale accumulations on the epidermis. Hair shaft and nail abnormalities are also present. Autoimmunity in homozygous fsn mice is manifested by glomerulonephritis accompanied by immune complex deposition in the kidneys, increased serum blood urea nitrogen levels, and the presence of circulating anti-double-stranded DNA autoantibodies.
Technical Support

Genotyping Protocols
Separated PCR: Ttc7
Genotyping resources and troubleshooting

Appearance
albino, unaffected
Related Genotype: A/A Tyrp1<sup>b</sup> / Ty<sup>r</sup>p1<sup>b</sup> Tyr<sup>c</sup> / Tyr<sup>c</sup> Ttc<sup>fsn</sup> /+ or A/A Tyrp1<sup>b</sup> / Ty<sup>r</sup>p1<sup>b</sup> Tyr<sup>c</sup> / Tyr<sup>c</sup> +/+  
albino, pale skin, rough coat, alopecia
Related Genotype: A/A Tyrp1<sup>b</sup> / Ty<sup>r</sup>p1<sup>b</sup> Tyr<sup>c</sup> / Tyr<sup>c</sup> Ttc<sup>fsn</sup> / Ttc<sup>fsn</sup>

Citation
When using the flaky skin mouse strain in a publication, please cite the originating article(s) and include JAX stock #001723 in your Materials and Methods section.

Animal Health Reports
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.

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<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or wildtype for Ttc7&lt;fsn&gt;</td>
<td>$2,854.50</td>
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Related Products and Services

Frozen Mouse Embryo  
CByJ.A-Ttc7<fsn>/J  
$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 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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Terms Of Use

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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains