B6;129S4-C3tm1Crr/J

Stock No: 003641

Targeted Mutation

PLACE ORDER

0–2 week average lead time for 10 or more mice with age range

A C57BL/6J-congenic version of this strain is available as Stock No. 029661.

These knock-out mice, susceptible to infection, are useful when studying the role of C3 during immune responses.

Donating Investigator

Michael C. Carroll, The Center for Blood Research

Genetic Background

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td></td>
<td>N7→pN7F20</td>
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C3tm1Crr

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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>C3</td>
<td>complement component 3</td>
</tr>
</tbody>
</table>

Immunology, Inflammation and Autoimmunity Research
Developmental Biology Research
Research Tools

VIEW GENETICS

VIEW ALL RESEARCH APPLICATIONS

Starting at:
Details

Detailed Description
Mice homozygous for the C3 (complement component C3) targeted mutation are viable and fertile. Homozygous mutants exhibit an increased susceptibility to lethal infection by Group B streptococci. Reductions in peritoneal mast cell degranulation, production of tumor necrosis factor alpha, neutrophil infiltration and bacterial clearance have also been reported in these mice. Homozygotes also demonstrate a profound defect in antibody response to T cell dependent antigens. They show a diminished level of peanut agglutinin+ germinal centers and a failure in isotype switching despite normal B cell signaling in vitro.

Development

Control Suggestions

Genetics

C3tm1Crr

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols
High Resolution Melting: C3tm1Crr
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)
Breeding Considerations
When maintaining a live colony, homozygous mice may be bred together. The expected coat color from breeding is black.

Additional Breeding and Husbandry Support

Mating System
Homogote x Homogote

Citation
When using the BA12654, c3m1Tcr/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #003641 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
AX11 (Maximum)

Pricing & Availability

0–2 week average lead time for 10 or more mice with age range

Repository Live

### Domestic

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
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<th>PRICE</th>
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<tr>
<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for C3m1Tcr</td>
<td>$231.00</td>
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<tr>
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### International

Pricing effective for USA, Canada and Mexico shipping destinations

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Related Products and Services
Frozen Mouse Embryo $2,595.00 per straw or vial

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Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains