CBA/CaHN-Bltk<sup>xid</sup>/J mice have a mutation in the Bruton's tyrosine kinase gene (*Btk*), and are a model of human X-linked immunodeficiency. They have a B-lymphocyte-specific defect that results in an inability to launch an antibody response to thymus-independent type II antigens, although they do produce normal amounts of antibody in response to some protein antigens. They have low serum IgM and IgG3 and a reduced number of B-cells. Moreover, the B-cells that are present have a reduced surface IgM to IgD ratio, which suggests a disorder in B-cell maturation.

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>CBA/CaHN-Bltk&lt;sup&gt;xid&lt;/sup&gt;/J</td>
<td>Contact Technical Support (2018-07-27 00:00:00)</td>
</tr>
</tbody>
</table>

Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.
CBA/CaHN-\(Btk^{xid}\)/J mice have a mutation in the Bruton's tyrosine kinase gene (\(Btk\)), and are a model of human X-linked immunodeficiency. They have a B-lymphocyte-specific defect that results in an inability to launch an antibody response to thymus-independent type II antigens, although they do produce normal amounts of antibody in response to some protein antigens. They have low serum IgM and IgG3 and a reduced number of B-cells. Moreover, the B-cells that are present have a reduced surface IgM to IgD ratio, which suggests a disorder in B-cell maturation.
Genotyping Protocols
Pyrosequencing: Btk
End Point Analysis: BtkEnd Point
Genotyping resources and troubleshooting
The Jackson Laboratory does not have a PCR genotyping assay for the Btk<sup>xid</sup> mutation. The point mutation is a C to T transition at point 219 (Rawlings DJ et al. Science 1993; 261(5119):358-61 [PMID: 8332901]).

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations
This strain is an exceptional breeder.

Additional Breeding and Husbandry Support
Mating System
Homozygote x Hemizygote
Appearance
agouti
Related Genotype: A/A

Citation
When using the CBA/N mouse strain in a publication, please include JAX stock #001011 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

MP13 (Maximum)
Pricing & Availability

Available Now

Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.

Domestic

Pricing effective for USA, Canada and Mexico shipping destinations

Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
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<td>3 weeks</td>
<td>Female</td>
<td>Homozygous for Btk&lt;sup&gt;xid&lt;/sup&gt;</td>
<td>$101.82</td>
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<tr>
<td>3 weeks</td>
<td>Male</td>
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<td>$113.71</td>
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Terms Of Use

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

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