CBA/CaHN-Btk<sup>−/−</sup>/J

Stock No: 001011 | CBA/N

Inbred Strain

Available Now

Place Order

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

Also Known As: CBA/N

CBA/CaHN-Btk<sup>−/−</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.

Read More +

Genetic Background

Generation

Contact Technical Support

(2018-07-27 00:00:00)

View Genetics
Mouse/Human Gene Homologs
Research Tools
Immunology, Inflammation and Autoimmunity Research

Starting at:
$0.00 Domestic price for male 3-week

VIEW PRICE LIST

Details

Detailed Description
CBA/CaHN-Btk<sup>xd</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.

View Flow Cytometry Characterization Data for Immunodeficient JAX Strains

Control Suggestions

Selected References

Genetics

Btk<sup>xd</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype
Genotyping Protocols
Pyrosequencing: Btk<sup>hid</sup>
End Point Analysis: Btk<sup>hid</sup> End Point
Genotyping resources and troubleshooting
The Jackson Laboratory does not have a PCR genotyping assay for the Btk<sup>hid</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
Animal Health Reports
When using the CBA/N mouse strain in a publication, please include JAX stock #001011 in your Materials and Methods section.
Facility Barrier Level Descriptions
MP13 (Maximum)

Pricing & Availability
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