Also Known As: C, BALBc

BALB/cJ is a commonly used inbred. Key traits include a susceptibility to developing the demyelinating disease upon infection with Theiler's murine encephalomyelitis virus. The BALB/cJ substrain is susceptible to *Listeria*, all species of *Leishmania*, and several species of *Trypanosoma*, but is resistant to experimental allergic orchitis (EAO).

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contact Technical Support</td>
</tr>
<tr>
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</table>

**RESEARCH APPLICATIONS**

Cardiovascular Research
BALB/c mice are particularly well known for the production of plasmacytomas following injection with mineral oil forming the basis for the production of monoclonal antibodies. Although not all BALB/c substrains have been examined for plasmacytoma induction, substrains derived from the Andervont (An) lineage (which includes BALB/cByJ) typically are susceptible, while those descended from BALB/cJ are resistant (see: Potter M, 1985). Mammary tumor incidence is normally low but infection with mammary tumor virus by fostering to MMTV\(^{+}\) C3H mice dramatically increases tumor number and age of onset. BALB/c mice develop other cancers later in life including reticular neoplasms, primary lung tumors, and renal tumors. Rare spontaneous myoepitheliomas arising from myoepithelial cells of various exocrine glands have been observed in both BALB/cJ and BALB/cByJ substrains. This strain was found to be susceptible to infection by *Listeria monocytogenes*, with a 3 day median time to death in females (Cheers and McKenzie, 1978).

White et al. reported a variation in thioglycolate medium-induced peritoneal leukocyte recruitment in 4 analyzed strains. The response of total leukocyte recruitment, from greatest to least, was C57BL/6J>BALB/c>CD1>129X1/SvJ. Variations were also found in the timeline of response and cell types most impacted.

BALB/c mice immunized with PLP\(_{180-199}\) develop an atypical form of experimental autoimmune encephalomyelitis (EAE) in which susceptibility is determined by location. In the spinal cord 60-70% mice develop pathological lesions and in the brain and cerebellum 100% of mice develop sever lesions.

Dorso-ventral vaginal septa is observed in some BALB/cJ females, and may contribute to non-productive females in this strain. (Cunliffe-Beamer T, *Lab Anim Sci*, 1976)
Selected References

Genetics

- Cdh23<sup>ahl</sup>
- Mx<sup>1+</sup>
- Mic1<sup>+</sup>
- Cox7a2<sup>ls</sup>
- Hld

Disease/Phenotype

- Disease Terms
- Research Areas By Phenotype
- Mammalian Phenotype Terms by Genotype
- Phenotype Information
- References

Technical Support

Genotyping Protocols
Separated PCR: GAL Panel
Genotyping resources and troubleshooting
Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.

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

This strain is a good breeder.

Additional Breeding and Husbandry Support

Mating System
Sibling x Sibling

Appearance
albino

Related Genotype: A/A Tyrp1\textsuperscript{b}/Tyrp1\textsuperscript{b} Tyr\textsuperscript{c}/Tyr\textsuperscript{c}

Citation
When using the BALB/cJ mouse strain in a publication, please include JAX stock #000651 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

MP16 (Standard)
RB09 (Maximum)
RB10 (Maximum)
RB17 (High)
EM03 (Maximum)
MP13 (Maximum)
RB11 (Maximum)
AX5 (Standard)
RB07 (Maximum)
EM04 (Maximum)

Pricing & Availability

Readily available in any quantity needed.

Domestic

Pricing effective for USA, Canada and Mexico shipping destinations.

<table>
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<th>AGE</th>
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### RELATED PRODUCTS AND SERVICES

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### VOLUME PRICING DETAILS

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<th>QUANTITY</th>
<th>Volume Pricing</th>
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<tbody>
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<tr>
<td>250</td>
<td>10% off</td>
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</table>

**Volume Pricing Program**

Quantities: Volume pricing is automatically applied when a minimum quantity per strain for a shipment is reached.

Sexes: Sexes of the same strain may be combined to reach minimum quantity levels to receive the volume pricing.

Shipment: All shipping destinations qualify.

This strain is available from some international Charles River (CR) breeding facilities in Japan and/or Europe. For more information, see the Worldwide Distributor List for JAX® Mice.

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Terms Of Use

TERMS OF USE

General Terms and Conditions

LICENSING INFORMATION

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

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