129S(B6)-Abl1<sup>Int1<i>mIg</i></sup>/J

Stock No: 009416

Targeted Mutation

**Overview**

In this strain, the targeted mutation replaces exon 5 and part of exon 6 of the c-abl concogene 1, non-receptor tyrosine kinase gene, Abl1, with a neomycin resistance (neo) cassette, abolishing gene function. These mice may be useful for studying cell proliferation, survival and migration, as well as lymphopoiesis and hematopoiesis.

**Donating Investigator**

Stephen P. Goff, Columbia University

PLACE ORDER

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Abl1&lt;sup&gt;tm1Mig&lt;/sup&gt;</td>
<td></td>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Abl1</td>
<td>c-abl oncogene 1, non-receptor tyrosine kinase</td>
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**RESEARCH APPLICATIONS**

Reproductive Biology Research  
Immunology, Inflammation and Autoimmunity Research  
Developmental Biology Research

**BASE PRICE**

Starting at:

$2,595.00 Domestic price Cryo Recovery

**Details**

**Detailed Description**

In this strain, the targeted mutation replaces exon 5 and part of exon 6 of the c-abl concogene 1, non-receptor tyrosine kinase gene, Abl1, with a neomycin resistance (neo) cassette, abolishing gene function. Mice heterozygous for this allele are viable, fertile, and normal in size. Homozygous c-Abl<sup>2</sup> mice exhibit no abnormal phenotype before birth. After birth 10% of homozygotes die, while 95% of the remaining homozygotes become runted and 85% develop lymphopenia. During the first week of age fatty vacuoles are evident in hepatocytes and some hepatic degeneration is evident. Spleens are severely atrophied, as are thymuses which show a severe deficiency in thymocytes. The few remaining thymocytes are only single positive CD4 or CD8 T cells. Only 50% of homozygous mutants survive the first 2 weeks of life. The few that survived to 3 or 4 months of age exhibited megaesophagus, anal prolapsed, aspiration pneumonia, and signs of infection in the nasal passages and ears. Mutants weighing 50% of the weight of controls had 50% fewer bone marrow cells, whereas mutant thymocytes decreased 20- to 500-fold in number. These mice may be useful for studying cell proliferation, survival and migration, as well as lymphopoiesis and hematopoiesis.

**Development**

**Control Suggestions**
Selected References

Genetics

Abl1<sup>lmtMig</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Genotyping resources and troubleshooting

Breeding Considerations
When maintained as a live colony, heterozygotes may be bred. Viability of homozygotes is reduced and surviving males have reduced fertility.
Additional Breeding and Husbandry Support

Citation
When using the 129S6-Abl1<sup>lmtMig</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #009416 in your Materials and Methods section.

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.

Domestic International
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

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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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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains
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