B6.129S4-Cxcl10<sup>tm1Adl</sup>/J  

**Also Known As:** IP-10 

Homozygous mice have defective T cell responses, including impaired proliferation and IFN-gamma secretion following antigenic challenge. Contact hypersensitivity is reduced and ability to control viral replication in the brain after infection is impaired. These mutant mice may be useful in studies of Th1-type inflammatory disease, chemokine biology, and T cell priming, proliferation, and trafficking.

**Donating Investigator**  
Andrew D Luster, Massachusetts General Hospital-East
**GENETIC OVERVIEW**

**Genetic Background**
N9F?+N2F6
(2019-08-28 00:00:00)

**Cxcl10^tm1Adl**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Cxcl10</td>
<td>chemokine (C-X-C motif) ligand 10</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

Immunology, Inflammation and Autoimmunity Research
Cell Biology Research
Research Tools
Virology Research

**BASE PRICE**

Starting at:
$236.78 Domestic price for female 4-week

**Details**

Homozygous mice are viable, fertile, and have no overt morphological or developmental abnormalities. No endogenous gene expression is observed in bone marrow-derived macrophages before or after IFN-gamma stimulation. Homozygous mice have defective T cell responses, including impaired proliferation and IFN-gamma secretion following antigenic challenge (129Sv background). In experimental models of T helper-1 (Th1)-mediated immune responses, homozygous-deletion leads to diminished immune function; contact hypersensitivity is reduced (129Sv background) and diminished threshold for disease expression in experimental autoimmune encephalomyelitis (EAE, human model of multiple sclerosis) (C57BL/6 background). After injection with a neurotropic coronavirus MHV, null mice (on a B6;129Sv background) exhibit impaired viral clearance, decreased CD4^+ /CD8^+ infiltration into the brain, and are protected from viral-induced demyelination. Similarly, homozygous mice (on a C57BL/6 background) infected with West Nile Virus have increased viral load in brain, altered CD8^+ effector T cell recruitment to neurons and increased mortality. These mutant mice may be useful in studies of Th1-type inflammatory disease, chemokine biology, and T cell priming, proliferation, and trafficking.

*In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for this strain. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results.*
Genotyping Protocols
Standard PCR: Cxcl10^{tm1Adl}
Genotyping resources and troubleshooting
Dietary Information
LabDiet® 5K52 formulation (6% fat)
Breeding Considerations
When maintaining a live colony, these mice are bred as homozygotes.
Additional Breeding and Husbandry Support
Mating System
Homozygote x Homozygote

Citation
When using the IP-10 mouse strain in a publication, please cite the originating article(s) and include JAX stock #006087 in your Materials and Methods section.

Facility Barrier Level Descriptions
AX10 (Standard)

Pricing & Availability

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
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<td>4 weeks</td>
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<td>Female</td>
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<td></td>
<td>Male</td>
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<tr>
<td>6 weeks</td>
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<td>7 weeks</td>
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<td></td>
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<td></td>
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<tr>
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<tr>
<td></td>
<td>Male</td>
<td>Homozygous for Cxcl10</td>
<td>$236.78</td>
</tr>
</tbody>
</table>

Related Products and Services

| Frozen Mouse Embryo | B6.129S4-Cxcl10<sup>tm1Adl</sup>/J | $2595.00 |

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Email: TechTran@jax.org

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- All
- By Allele
- By Gene
- By Collection

All Related Strains

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