Also Known As: IAP

CD47 deficient mice are useful when studying phagocytosis during inflammation and tumor suppression.

Donating Investigator
Dr. Frederik Lindberg, Washington University School of Medicine

GENETIC OVERVIEW

Gene Symbol: Cd47
Gene Name: CD47 antigen (Rh-related antigen, integrin-associated signal transducer)

RESEARCH APPLICATIONS
Immunology, Inflammation and Autoimmunity Research
Cardiovascular Research

Live mice available in varying quantities. Ask Customer Service for details.
Details

Detailed Description

Mice homozygous for the targeted mutation are viable, fertile, and display no obvious phenotypic abnormalities. Homozygous mutant mice display normal blood counts except for a reduction in the CD3^+^ fraction of peripheral lymphocytes. Integrin-associated protein (IAP; CD47) expression in heterozygous mice was approximately 40% of wildtype. Intraperitoneal injection of virulent *Escherichia coli* kills IAP-deficient mice, indicating a defect in the host defense pathway. This response appears to be secondary to both delayed polymorphonuclear leukocyte (PMN) migration to the site of infection and to defective activation at the site. Young CD47-null mice have enhanced physical performance and more efficient metabolism. Skeletal muscle in young (3 month old) CD47-null mice exhibit increased densities of mitochondria (that function normally in terms of ATP production and the activity of the electron transport chain enzymes). CD47-null mice also exhibit increased expression of cytochrome b, cytochrome c, PGC1α and NRF-1.

Development

Control Suggestions

Selected References

Genetics

*Cd47^tm1Fpl*

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype
Genotyping Protocols
Standard PCR: \texttt{Cd47-Alternate 2}

Genotyping resources and troubleshooting

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

Mating System
Homozygote x Homozygote

Citation
When using the IAP^{\textsuperscript{\textregistered}} mouse strain in a publication, please cite the originating article(s) and include JAX stock #003173 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

- AX10 (Standard)

## Pricing & Availability

Live mice available in varying quantities. Ask Customer Service for details.

### Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for Cd47\textsuperscript{\textsuperscript{tm1Fpl}}</td>
<td>$236.78</td>
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<tr>
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<tr>
<th>Product</th>
<th>Description</th>
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<tr>
<td>Frozen Mouse Embryo</td>
<td>B6.129S7-Cd47&lt;tm1Fpl&gt;/J Frozen Embryos</td>
<td>$2595.00</td>
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