B6(C)-H2-Ab1 \(^{bm12}\)/KhEgJ

Stock No: 001162 | bm12

- Coisogenic, Spontaneous Mutation

AVAILABLE NOW

PLACE ORDER

Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.
Also Known As: bm12
This variant MHC class II allele, H2-Ab1^{bm12}, is associated with increased resistance to experimental autoimmune myasthenia gravis (EAMG). Mice congenic for H2 alleles are widely used in immunologic research and often vary in immune response and pathogen susceptibility from the recipient strain.

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contact Technical Support (2018-07-27 00:00:00)</td>
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**H2-Ab1^{bm12}**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Spontaneous</td>
<td>H2-Ab1</td>
<td>histocompatibility 2, class II antigen A, beta 1</td>
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</table>

RESEARCH APPLICATIONS
Immunology, Inflammation and Autoimmunity Research
Research Tools

VIEW ALL RESEARCH APPLICATIONS
**Details**

**Detailed Description**

H2-Ab1<sup>bmi12</sup> differs from H2-Ab1<sup>b</sup> by 3 nucleotides resulting in amino acid substitutions in three codons in the beta1 exon. Surface expression of MHC class II A is reduced as is the amount of invariant chain co-precipitated with the alpha and beta chains. This variant MHC class II allele is associated with increased resistance to experimental autoimmune myasthenia gravis (EAMG). Homozygous mice exhibit lower IFNG and IL10 release and decreased calcium mobilization in response to immunization with acetylcholine receptor and its dominant peptide alpha146-162. Like other mice with the H2<sup>b</sup> haplotype, this strain is MHC class II IE<sup>b</sup>, the b allele is considered a null allele. Mice congenic for H2 alleles are widely used in immunologic research and often vary in immune response and pathogen susceptibility from the recipient strain.

**Development**

**Control Suggestions**

**Selected References**

**Genetics**

**H2-Ab1<sup>bmi12</sup>**

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**References**

**Technical Support**

CHAT OFFLINE

CONTACT TECHNICAL SUPPORT
Genotyping Protocols
Pyrosequencing: H2-Ab1^{bm12}
End Point Analysis: H2-Ab1^{bm12} EP
Genotyping resources and troubleshooting
The Jackson Laboratory has not developed a genotyping protocol for H2 haplotypes. The following reference may be helpful: Saha BK. J Immunol Meth 1996 Jul 17;194(1):77-83. [PMID: 8690943]. Alternatively, haplotype-specific antibodies can be used with FACS.

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

Breeding Considerations

This strain is a good breeder.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black
Related Genotype: a/a

Citation
When using the bm12 mouse strain in a publication, please cite the originating article(s) and include JAX stock #001162 in your Materials and Methods section.

Animal Health Reports

Pricing & Availability

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<table>
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