B6.129P2-B2m<sup>tm1Unc</sup>/J

Stock No: 002087 | B2m KO

*Congenic, Targeted Mutation*

**Also Known As: B2m KO**

Mice homozygous for the B2m<sup>tm1Unc</sup> targeted mutation have little if any MHC class I protein expression on the cell surface. There are few CD8<sup>+</sup> cytotoxic T-cells and under some circumstances a compensatory increase in CD4<sup>+</sup> cytotoxic T-cells. Immune responses involving CD8<sup>+</sup> T-cells are severely deficient, providing a model to assess the role of CD8<sup>+</sup> cells and class I MHC in various experimental systems.

**Donating Investigator**

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B2m<sup>tm1Unc</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<td>Targeted (Null/Knockout)</td>
<td>B2m</td>
<td>beta-2 microglobulin</td>
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**Details**

**Detailed Description**
Mice homozygous for the B2m<sup>tm1Unc</sup> targeted mutation have little if any MHC class I protein expression on the cell surface. There are few CD8<sup>+</sup> cytotoxic T-cells and under some circumstances a compensatory increase in CD4<sup>+</sup> cytotoxic T-cells. Immune responses involving CD8<sup>+</sup> T-cells are severely deficient providing a model to assess the role of CD8<sup>+</sup> cells and class I MHC in various experimental systems. Hemachromatosis has been noted in certain genetic backgrounds (Rothenberg BE, Voland JR, Proc Nati Acaod Sci USA 93:1529-34, 1996). 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 the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

**Development**

**Control Suggestions**

**Selected References**

**Genetics**

**B2m<sup>tm1Unc</sup>**

**Disease/Phenotype**

**Disease Terms**
Genotyping Protocols
Separated MCA: \(N^t_{C57BL/6} \)
Standard PCR: \(B2m^{tm1Unc} \)
MELT: \(B2m^{tm1Unc} \)
Genotyping resources and troubleshooting

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

Breeding Considerations
This strain is a good breeder.
This \(B2m^{tm1Unc} \) strain is maintained by mating homozygous siblings. Only homozygous mice may be ordered. Expected coat color from breeding: Black
Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black
Related Genotype: a/a

Citation
When using the B2m KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #002087 in your Materials and Methods section.

Facility Barrier Level Descriptions
- R816 (Maximum)

Related Strains
All
By Allele
By Gene