C57BL/6N-Brca1<sup>tm1.1(BRCA1)Tsr/J</sup>

Stock No: 030081 | Humanized BRCA1 KI

*Coisogenic, Targeted Mutation*

**AVAILABLE**

**PLACE ORDER**

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

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**Overview**

Also Known As: Humanized BRCA1 KI, Brca1<sup>huBKI/huBKI</sup>

These humanized BRCA1 knock-in mice carry an allele containing human wildtype BRCA1, with a Cre recombinase inducible mutant 5382insC human BRCA1, from the endogenous mouse Brca1 gene. When bred to mice expressing Cre recombinase, the resulting progeny will express the mutant human 5382insC BRCA1 in the Cre-expressing tissues. These mice are suitable for use in...
applications related to the study the role of BRCA1 variants in hematopoiesis, hematopoietic stem cell function and chemotherapeutic toxicity.

Donating Investigator

Theodora S Ross, University of Texas Southwestern Medical Center

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>?^{+}P1</td>
<td>(2019-04-29 00:00:00)</td>
</tr>
</tbody>
</table>

**Brca1^{tm1.1(BRCA1)}^{Tsr}**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Conditional ready (e.g. floxed), Null/Knockout, Inserted expressed sequence, Humanized sequence)</td>
<td>Brca1</td>
<td>breast cancer 1, early onset</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Research Tools
Cancer Research
Cell Biology Research
Hematological Research

RESEARCH APPLICATIONS

VIEW PRICE LIST

Details

Detailed Description

The targeted Brca1 gene encodes a nuclear phosphoprotein that is critical for maintenance of genomic stability, DNA repair, and cell
These humanized BRCA1 knock-in mice, Brca1^{BRCA1/BRCA1}, carry a knock-out allele containing human wildtype BRCA1 with a Cre recombinase-inducible mutant 5382insC human BRCA1 expressed from the endogenous mouse Brca1 locus. The expression of human BRCA1 recapitulates endogenous mouse Brca1.

When bred to mice expressing Cre recombinase, the resulting progeny will express the mutant human 5382insC BRCA1 in the Cre-expressing tissues. Mice that are homozygous for this targeted mutation are viable and fertile.

### Development

### Expression Data

### Control Suggestions

### Selected References

### Genetics

Brca1^{tm1(BRCA1)Tsr}

### Disease/Phenotype

### Disease Terms

### Research Areas By Genotype

### Mammalian Phenotype Terms by Genotype

### References

### Technical Support

CONTACT TECHNICAL SUPPORT

### Genotyping Protocols

Sanger sequencing: (BRCA1^)Tsr-SEQ alt 2
QPCR: Brca1^{tm1(BRCA1)Tsr-^alt1}
Genotyping resources and troubleshooting

### Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygotes.

### Additional Breeding and Husbandry Support

### Mating System

Homozygote x Homozygote
Pricing & Availability

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

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Homozygous for Brca1&lt;sup&gt;tm1(BRCNA1)Tsr&lt;/sup&gt;</td>
<td>$255.00</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Homozygous for Brca1</td>
<td>$255.00</td>
</tr>
</tbody>
</table>

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**Related Strains**

- All
- By Allele
- By Gene