FVB.129P2-Abcb4^tm1Ber/J

Stock No: 002539 | MDR2 KO

Genetic Mutation

REPOSITORY LIVE

PLACE ORDER

3–6 week lead time for most orders depending on quantity and age range requested

Overview

Also Known As: MDR2 KO

MDR2 KO (Abcb4 or ATP-binding cassette, sub-family B (MDR/TAP), member 4) mice fail to secrete phospholipid into the bile from the liver. Mice develop portal inflammation followed by hepatocellular carcinoma. This strain may be useful in studies of intrahepatic cholestasis and liver cancer.

Donating Investigator

Dr. Piet Borst, The Netherlands Cancer Institute
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N10×pN1F3</td>
<td>(2019-03-01 00:00:00)</td>
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</tbody>
</table>

**Abcb4tm1Bor**

<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>Abcb4</td>
<td>ATP-binding cassette, sub-family B (MDR/TAP), member 4</td>
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</tbody>
</table>

**RESEARCH APPLICATIONS**

- Cancer Research
- Metabolism Research
- Internal/Organ Research
- Research Tools

**BASE PRICE**

Starting at:

$255.00 Domestic price for female

**Important Note**

This strain is homozygous for the retinal degeneration allele Pde6b<sup>rd1</sup>.

**Detailed Description**

The Abcb4 (ATP-binding cassette, sub-family B (MDR/TAP), member 4) or MDR2 gene encodes a membrane protein that functions as a transporter using phosphatidylcholine as its substrate. MDR2 knock-out (KO) mice lack the ability to secrete phospholipid into the bile from the liver. They develop a degenerative liver disease. Portal inflammation ensues at an early age followed by hepatocellular carcinoma development after the age of 1 year. Bile from heterozygous mice has half the level of phospholipid when compared to bile from homozygotes. No liver pathology has been shown in heterozygotes. This strain may be useful in studies of intrahepatic cholestasis and liver cancer.

**Development**
Genotyping Protocols
MELT: Abcb4<sub>tm13or</sub> alternate<sup>1</sup>
Genotyping resources and troubleshooting

Breeding Considerations
The strain is maintained by mating homozygous siblings. Please note that liver degeneration begins to arise at about 8 months of age.
Additional Breeding and Husbandry Support

Appearance
albino
Related Genotype: Tyr<sup>C</sup>/Tyr<sup>C</sup>

Citation
When using this mouse strain in a publication, please cite the originating article(s) and include JAX stock #002539 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
- AX18 (Maximum)

Pricing & Availability
3–6 week lead time for most orders depending on quantity and age range requested

### Domestic | International

<table>
<thead>
<tr>
<th>Live Mouse</th>
<th>Live Mouse</th>
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<tbody>
<tr>
<td>AGE</td>
<td>SEX</td>
</tr>
<tr>
<td>Approx 4–8 weeks</td>
<td>Female</td>
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<tr>
<td></td>
<td>Male</td>
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Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains
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