B6.129S2-0prm1<sup>tm1Klf/J</sup>

Stock No: 007559 | MOR-

Congenic, Targeted Mutation

PLACE ORDER

3-6 week average lead time depending on quantity and age requests are not accepted

Also Known As: MOR-

These Oprm1<sup>tm1Klf</sup> (or MOR-) knock-out mice exhibit a lack of morphine analgesia, reward, and withdrawal. These knock-out mice may be useful in studying the biological activity of opioids, analgesics, and responses to mechanical, chemical and thermal nociception at a supraspinal level.

Donating Investigator

Brigitte L. Kieffer, McGill University

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GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N12 x N2F4 (2018-04-17 00:00:00)</td>
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</table>

**Oprm1**<sup>tm1Klf</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Oprm1</td>
<td>opioid receptor, mu 1</td>
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</tbody>
</table>

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Sensorineural Research
Research Tools

VIEW ALL RESEARCH APPLICATIONS
Details

Detailed Description

Mice homozygous for the mu-opioid receptor mutant allele Oprm1<sup>tm1Kff</sup> (or MOR-) are viable and fertile. MOR-selective ligand binding is absent on brain membranes from homozygous mice. Homozygous mice exhibit a lack of morphine analgesia, reward, and withdrawal. This is accompanied by decreased mechanical, thermal, and chemical pain thresholds. Homozygous mice also show decreased ethanol self-administration and decreased THC-conditioned place aversion. In contrast to mutant mice deficient of delta- or kappa-opioid receptors (Stock Nos. 007557 or 007558, respectively), Oprm1<sup>tm1Kff</sup> homozygotes exhibit hypolocomotive spontaneous stress responses. Indeed, the reduced anxiety and depressive-like behavior observed in Oprm1<sup>tm1Kff</sup> mutants is in stark contrast to kappa-opioid receptor deficient mice. These knock-out mice may be useful in studying the biological activity of opioids, analgesics, and responses to mechanical, chemical and thermal nociception at a supraspinal level.

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. These mutant mice were originally published on a mixed genetic background. 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

Oprm1<sup>tm1Kff</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Standard PCR: Oprm1^tm1Kff

Genotyping resources and troubleshooting

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

Breeding Considerations
When maintaining a live colony, heterozygous or homozygous mice may be bred.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Citation
When using the MOP mouse strain in a publication, please cite the originating article(s) and include JAX stock #007559 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

FGB29 (Standard)

Pricing & Availability

3–6 week average lead time depending on quantity and age requests are not accepted

Repository Live

Domestic | International
Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Homozygous for Oprm1^tm1Kff</td>
<td>$271.00</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Homozygous for Oprm1^tm1Kff</td>
<td>$271.00</td>
</tr>
</tbody>
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All

By Allele

By Gene

By Collection

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