STOCK Kdr\textsuperscript{tm1(cre)Sato/J}

Stock No: 018976 | FLK1::Cre

- Targeted Mutation

Also Known As: FLK1::Cre

These Flk1::Cre mice may be useful for generating conditional mutations for fate mapping blood and vascular endothelial cells.

Donating Investigator

Thomas N. Sato, Nara Institute of Science and Technology

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kdr&lt;sub&gt;tm1(cre)Sato&lt;/sub&gt;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Recombinase-expressing)</td>
<td>Kdr</td>
<td>kinase insert domain protein receptor</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Research Tools

Details

Detailed Description
The Flk1:Cre "knock-in" allele has a Cre recombinase gene inserted into exon 1 of the kinase insert domain protein receptor (Kdr) gene, abolishing gene function and placing Cre expression under the control of the Kdr promoter/enhancer elements. KDR, also known as Flk1 or VEGFR2 (vascular endothelial growth factor receptor 2), is a type III receptor tyrosine kinase which mediates VEGF-induced regulation of angiogenesis, vascular development, vascular permeability, and embryonic haematopoiesis. Heterozygous mice are viable and fertile. The donating investigator reports Cre recombinase activity is observed in all embryonic and adult blood and vascular endothelial cells. When bred with mice containing loxP-flanked sequences, Cre-mediated recombination will result in deletion of the floxed sequences in the VEGFR2-expressing cells in the offspring.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Kdr<sup>tm1(cre)Sato</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Standard PCR: Kdr<sup>tm1(cre)Sato</sup>
Separated PCR: Kdr<sup>tm1(cre)Sato</sup>
Separated MCA: Kdr<sup>tm1(cre)Sato</sup>

Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony.

Additional Breeding and Husbandry Support
Citation
When using the FLK1:Cre mouse strain in a publication, please cite the originating article(s) and include JAX stock #018976 in your Materials and Methods section.

Related Strains

All

By Allele

By Gene

By Collection

All Related Strains