STOCK Egr2 tm2(cre)Pch/J

Stock No: 025744 | Krox-20 Cre

Targeted Mutation

REQUEST CRYORECOVERY

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Also Known As: Krox-20Cre, KCN
Krox-20 Cre mice express Cre recombinase under the direction of the Egr2 promoter in the hindbrain, Schwann cells, and long bones.

Donating Investigator
Patrick Charnay, Ecole Normale Supérieure

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>Egr2 tm2(cre)Pch</td>
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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Recombinase-expressing)</td>
<td>Egr2</td>
<td>early growth response 2</td>
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RESEARCH APPLICATIONS

Research Tools
Neurobiology Research

BASE PRICE
Starting at:
Krox-20<sup>cre</sup> mice have a nuclear localized Cre recombinase, followed by a neo cassette, replacing the two alternative initiation codons of the Egr2 (early growth response 2) gene. The presence of cre abolishes expression of Egr2. EGR2 is a zinc-finger transcription factor expressed in rhombomeres 3 and 5 during hindbrain segmentation, immature and myelinating Schwann cells, boundary cap cells, hair follicles, and in bones. Hemizygous mice are viable and fertile, while homozygotes die soon after birth. When these mice are bred with mice containing loxP-flanked sequence, Cre-mediated recombination will result in deletion of the floxed sequences in the Cre-expressing cells of the offspring.

For example, when bred to mice with cre-inducible lacZ expression, staining is evident in the hindbrain, and in neural crest cells emigrating from rhombomere 5 cells of the hindbrain. Staining was also seen in the peripheral nervous system beginning at E10.5, with expression starting at E12.5 in the dorsal and ventral roots of the cranial and spinal nerves. A progression from E16.5 to P4 shows all Schwann cells in the sciatic nerve undergo recombination. Also, staining is seen in chondrocytes, hypertrophic chondrocytes and periosteal and endosteal osteocytes of long bones, hair follicles, epidermis, and whiskers.
Genotyping Protocols
Standard PCR: Egr2^{m2(cre)/Pch}
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony heterozygous mice may be bred to wildtype mice from the colony. The donating investigator reports that homozygotes die soon after birth.
Additional Breeding and Husbandry Support

Citation
When using the Egr2^{m2(cre)/Pch} mouse strain in a publication, please cite the originating article(s) and include JAX stock #025744 in your Materials and Methods section.
Facility Barrier Level Descriptions
Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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

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<tr>
<th>Related Products and Services</th>
<th>$2,595.00 per straw or vial</th>
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<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
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