Overview

Also Known As: mP0TOTA(Cre), mPoTOTA-Cre, MPZ(Cre), Tg98.1, Tg(Mpz-cre)1Mfel, P0-Cre

These transgenic mice contain the myelin protein zero (P0) (Mpz) promoter driving expression of Cre recombinase in Schwann cell. These mice may be useful for studying the myelination of peripheral nerve cells.

Donating Investigator
These mice express Cre recombinase under the control of the myelin protein zero (P₀) (Mpz) gene. P₀ is a glycoprotein located in Schwann cells, but not in sensory neurons, of the peripheral nervous system. Defects in Schwann cells lead to nerve cell demyelination and have been associated with Charcot-Marie-Tooth disease and Dejerine-Sottas disease. Cre-recombinase expression is seen primarily in Schwann cells, and to a lesser extent in a small number of periventricular cells that give rise to cells in the cortex. Expression is also seen in a subpopulation of neural-crest derived progenitors in the heart. Homozygotes are viable and fertile. When crossed with a strain containing a loxP site-flanked sequence, Cre-mediated recombination results in deletion of the flanked sequence in Schwann cells between embryonic days (E)13.5 and E14.5.

For example, when bred to a strain expressing a floxed-Beta1 integrin (Bint1) gene, the resulting mice exhibit tremor, abnormal gait,
paw clenching and defects in radial sorting of axons by Schwann cells and altered myelination. Analysis of BINT1 expression shows that recombination occurs in Schwann cells, but not in dorsal root ganglion neurons (Feltri et al., J Cell Biol. 2002).

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. 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.

Genetics

Tg(Mpz-cre)26Mes

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Genotyping Protocols

Breeding Considerations

When maintaining a live colony, hemizygous mice may be bred to wildtype (noncarrier) mice from the colony or to FVB/NJ inbred mice (Stock No. 001800).

Additional Breeding and Husbandry Support

Citation

When using the P0-Cre mouse strain in a publication, please cite the originating article(s) and include JAX stock #017928 in your Materials and Methods section.
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

Pricing effective for USA, Canada and Mexico shipping destinations

Cryorecovery - Domestic Pricing

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous or Non Carrier for Tg(Mpz-cre)26Mes</td>
<td>$2,854.50</td>
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We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

| Frozen Mouse Embryo | FVB/N-Tg(Mpz-cre)26Mes/J Frozen Embryo       | $2595.00 |

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