B6.Cg-Tg(Tyr-cre/ERT2)13Bos/J

Stock No: 012328 | Tyr::CreER T2

Congenic, Transgenic

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

Also Known As: Tyr::CreER T2

Tyr::CreERT2 mice have expression of CreERT2 fusion protein directed by mouse tyrosinase promoter/enhancer regions. When bred with mice containing loxP-flanked sequences, tamoxifen/4-hydroxytamoxifen-inducible Cre-mediated recombination will result in deletion of the floxed sequences in the Tyr-expressing cells of the offspring. These Tyr::CreERT2 mice may be useful for generating conditional mutations for studying gain or loss of function and/or fate mapping in melanocytes/melanoblasts.

Donating Investigator

Marcus Bosenberg, Yale University

GENETIC OVERVIEW

Genetic Background  Generation
N11F7 x N3F4  (2018-12-11 00:00:00)

Tg(Tyr-cre/ERT2)13Bos

Allele Type
Transgenic (Recombinase-expressing, Inducible)

RESEARCH APPLICATIONS

Research Tools

BASE PRICE
Starting at:

$76.22 Domestic price for female
$47.22 Domestic price for breeder pair

Details

Detailed Description

Homozygous mice are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. Cre-ERT2 fusion gene activity can be induced following tamoxifen or 4-hydroxytamoxifen administration. When Tyr::CreERT2 mice are bred with mice containing loxP-flanked sequences, inducible Cre-mediated recombination will result in deletion of the floxed sequences in the Tyr-expressing cells of the offspring. The donating investigator reports that Cre recombinase activity is observed in embryonic melanoblasts, follicular bulb melanocytes, dermal dendritic melanocytes, epidermal melanocytes of tail skin and ocular chorid cells. Recombinase expression was not observed in the other major tissues/organs tested. This mutant mouse strain may be useful in studies of melanocyte development, melanocyte stem cell function and melanomas.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(Tyr-cre/ERT2)13Bos

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Probe: *Generic Cre Probe*
High Resolution Melting: *Tyr-cre/ERT2*13Bos-alternate2
MELT: *Generic Cre Melt Curve Analysis*
Genotyping resources and troubleshooting

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

Breeding Considerations
While maintaining a live colony, these mice can be bred as hemizygotes or homozygotes.
Additional Breeding and Husbandry Support

Mating System
Hemizygote x Noncarrier

Citation
When using the Tyr-cre/ERT2 mouse strain in a publication, please cite the originating article(s) and include JAX stock #012328 in your Materials and Methods section.

Facility Barrier Level Descriptions

FG289 (Standard)

Pricing & Availability

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

Repository Live

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<thead>
<tr>
<th>Live Mouse</th>
<th>AGE</th>
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<th>GENOTYPE</th>
<th>PRICE</th>
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<td>Female</td>
<td>Hemizygous for Tg(Tyr-cre/ERT2)13Bos</td>
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**Related Strains**

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All Related Strains
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Shipments have begun at our new facility, allowing increased access to JAX mouse models.