FVB-Tg(GFAP-luc,GAPDH-rluc)172.9Mes/J

Stock No: 009638

Coisogenic, Transgenic

Cryo Recovery

PLACE ORDER

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

Also Known As: dual-Glo

These Dual-glo transgenic mice express both firefly luciferase (luc) under the control of the human GFAP (glial fibrillary acidic protein) promoter and Renilla luciferase under the control of the 0.5kb human GAPDH (glyceraldehyde-3-phosphate dehydrogenase) promoter. GFAP-FLuc transgene expression is highest in brain, with lower levels detected in heart and no detectable expression in kidney, muscle, lung and liver. The firefly luciferase protein co-localizes with GFAP in astrocytes after kainic acid induced injury. GAPDH-RLuc transgene expression is highest in brain and heart, with lower levels detected in kidney, muscle, lung and liver. Interindividual variability in firefly luciferase expression is reduced with normalization of the GFAP-FLuc signal to the GAPDH-RLuc signal. This mutant mouse strain may be useful in studies of Alexander disease, astrocyte biology, and gliosis.

Donating Investigator

Dr. Albee Messing, University of Wisconsin-Madison

READ MORE +

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>Tg(GFAP-luc,GAPDH-rluc)172.9Mes</td>
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</table>

Allele Type
Transgenic (Reporter)

VIEW GENETICS

RESEARCH APPLICATIONS
Research Tools
Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS
Details

Detailed Description

These Dual-glo transgenic mice express both firefly luciferase (luc) under the control of the human GFAP (glial fibrillary acidic protein) promoter and Renilla luciferase under the control of the 0.5kb human GAPDH (glyceraldehyde-3-phosphate dehydrogenase) promoter. GFAP-fLuc transgene expression is highest in brain, with lower levels detected in heart and no detectable expression in kidney, muscle, lung, and liver. The firefly luciferase protein co-localizes with GFAP in astrocytes after kainic acid induced injury. GAPDH-RLuc transgene expression is highest in brain and heart, with lower levels detected in kidney, muscle, lung, and liver. Interindividual variability in firefly luciferase expression is reduced with normalization of the GFAP-fLuc signal to the GAPDH-RLuc signal. Retinal expression of luciferase is increased due to photoreceptor degeneration for mice on the FVB background and the homozygous presence of the retinal degeneration 1, Pde6b<sup>rd1</sup> (rd) mutation. Firefly luciferase and GFAP expression increases in response to chemical (Kainic acid) induced injury. Mice that are hemizygous for the targeted mutation are viable, normal in size and do not display any gross physical or behavioral abnormalities. This mutant mouse strain may be useful in studies of Alexander disease, astrocyte biology, and gliosis.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(GFAP-luc,GAPDH-rluc)172.9Mes

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References
Genotyping Protocols
Standard PCR: Tg(GAPDH-luc)
High Resolution Melting: Tg(GAPDH-luc)
Standard PCR: Tg (GFAP-luc)
Genotyping resources and troubleshooting

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

Citation
When using the NIBR Tg(GFAP-luc,GAPDH-rluc)172.9Mes/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #009638 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.

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous or non carrier for Tg(GFAP-luc,GAPDH-rluc)172.9Mes</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
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<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
<td>$2,595.00 per straw or vial</td>
</tr>
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</table>

### Payment Terms and Conditions

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in the Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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### Terms Of Use

**Terms Of Use**

**General Terms and Conditions**

**Licensing Information**

Phone: 207-288-6470
Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains