STOCK Tg(tetO-HIST1H2BJ/GFP)47Ef/J

Stock No: 005104 | pTRE-H2BGFP

Transgenic

3–6 week average lead time depending on quantity and age requests are not accepted

Also Known As: pTRE-H2BGFP

Widespread tissue-specific expression of the human histone 1, H2bj, protein (HIST1H2BJ) can be regulated with the administration of doxycycline after breeding a mouse carrying this transgene with another transgenic mouse expressing reverse tetracycline-controlled transactivator protein (rtTA) or tetracycline-controlled transactivator protein (tTA).

Donating Investigator

Elaine Fuchs, The Rockefeller University

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<td>?xF2</td>
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</table>

Tg(tetO-HIST1H2BJ/GFP)47Ef/J

Allele Type

Transgenic (Inducible, Inserted expressed sequence)

Gnat2<sup>cpfl3</sup>

Allele Type

Spontaneous

Gene Symbol

Gnat2

Gene Name

guanine nucleotide binding protein, alpha transducing 2

VIEW GENETICS

RESEARCH APPLICATIONS

Sensorineural Research
Research Tools
Cell Biology Research
Details

Important Note
This strain is segregating for Gnat2^{cpl3}, cone photoreceptor function loss 3, which affects bright light (photopic) vision.

Detailed Description

These transgenic mice express the human histone 1, H2bj, protein (HIST1H2BJ) and Green Fluorescent Protein (GFP) fusion protein, HIST1H2BJ/GFP, under the control of a tetracycline-responsive promoter element (TRE; tetO). Transgenic expression occurs in widespread fashion. When hemizygotes are bred with another transgenic mouse expressing reverse tetracycline-controlled transactivator protein (rtTA) or tetracycline-controlled transactivator protein (tTA) to create bitransgenic animals, tissue-specific HIST1H2BJ/GFP transgene expression can be regulated with the tetracycline analog, doxycycline. Pulse-chase administration of doxycycline results in retention of signal in rarely dividing, or infrequently cycling, label-retaining cells (LRCs). Potential constitutive transgene expression should be examined in tissues of interest.

Development

Expression Data

Selected References

Genetics

Tg(tet0-HIST1H2BJ/GFP)47Efu

Gnat2^{cpl3}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype
Genotyping Protocols
Standard PCR: Fluorescent Proteins (Generic GFP)
Genotyping resources and troubleshooting

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

Breeding Considerations
When maintaining a live colony, these mice are maintained as hemizygote.
Additional Breeding and Husbandry Support

Mating System
Hemizygote x +/- sibling

Citation
When using the JAX-129230 mouse strain in a publication, please cite the originating article(s) and include JAX stock #005104 in your Materials and Methods section.
Facility Barrier Level Descriptions

 AX11 (Maximum)

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Pricing & Availability

Repository Live

<table>
<thead>
<tr>
<th>Live Mouse</th>
<th>Age</th>
<th>Sex</th>
<th>Genotype</th>
<th>Price</th>
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<tbody>
<tr>
<td></td>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Hemizygous for Tg(tetO-HIST1H2BJ/GFP)47Efu</td>
<td>$271.00</td>
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<tr>
<td></td>
<td>Approx 4-8 weeks</td>
<td>Male</td>
<td>Hemizygous for Tg(tetO-HIST1H2BJ/GFP)47Efu</td>
<td>$271.00</td>
</tr>
<tr>
<td></td>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Noncarrier</td>
<td>$76.22</td>
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<td></td>
<td>Approx 4-8 weeks</td>
<td>Male</td>
<td>Noncarrier</td>
<td>$76.22</td>
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<table>
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<th>Breeder Pair</th>
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<td>Noncarrier</td>
<td>$347.22</td>
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</table>

3-6 week average lead time depending on quantity and age requests are not accepted
### Male
| Hemizygous for Tg(tetO-HIST1H2B/J/GFP)47Efu |  
|------------------------------------------|---|
### Female
| Hemizygous for Tg(tetO-HIST1H2B/J/GFP)47Efu | $347.22  
| Noncarrier |  

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- **By Allele**
- **By Gene**
- **By Collection**

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