FVB-Tg(C3-1-TAg)cJeg/JegJ

Stock No: 013591 | C3(1)-TAg, C3(1)/Tag

Coisogenic, Transgenic

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

Also Known As: C3(1)-TAg, C3(1)/Tag

Stock No. 013591: The C3(1)-TAg transgenic strain is a model for the study of multistage oncogenesis in the prostate and mammary glands.

Of note, a subline was identified with transgene rearrangement/deletion to only one copy (or a partial copy) in the original chromosome 6 locus - resulting in retained tolerance to SV40 TAg but no spontaneous cancer phenotype. The new subline, called C3(1)/TAg-REAR, is available as Stock No. 030386.

Donating Investigator

Jeffrey E Green, National Cancer Institute, National Institutes of Health (NIH/NCI)

Cryopreservation Cryopreservation, TJL

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GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
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</table>

**Tg(C3-1-TAg)cJeg**

<table>
<thead>
<tr>
<th>Allele Type</th>
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<tbody>
<tr>
<td>Transgenic (Inserted expressed sequence)</td>
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VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools
Cancer Research
Reproductive Biology Research

VIEW ALL RESEARCH APPLICATIONS
Details

Detailed Description

The C3(1)/Tag founder line C originally contained six transgene copies at a single locus in the telomeric portion of chromosome 6 (which contains the Ki-ras proto-oncogene) - resulting in multistage oncogenesis in prostate and mammary gland. The published details are described in detail below.

Male hemizygous transgenic mice develop prostatic hyperplasia in early life that progresses to adenoma or adenocarcinoma in about half of the animals which survive longer 7 months of age. Some transgenic male hemizygotes develop adenocarcinomas of the urethral/periurethral and bulbourethral glands (10-20% of hemizygous males) and submandibular gland (10% of hemizygous males 8 months of age). In female transgenic mice, the transgene is expressed primarily in the distal mammary ductal epithelium and terminal ductal lobular unit. Female hemizygous animals generally develop mammary intraepithelial neoplasia with similarities to DCIS by 3 months of age with subsequent development of mammary adenocarcinoma by 6 months of age in 100% of the animals. About 10-15% of hemizygous female mice develop lung metastases. Direct invasion of adjacent lymph nodes, skeletal muscle, salivary glands and tissues as well as mammary tumor metastases in liver, adrenal and heart have also been observed. Bone, brain and regional lymph node metastases have not been observed. Tumors of the sweat glands have been observed in both male and female transgenic animals. The phenotype for this transgene has been most extensively studied in the FVB/N background. While homozygotes are viable and fertile, pups born to homozygous mothers need foster mothers because of lactation difficulties.

Of note, in 2016, 6-7 week old mice from this Jackson Laboratory colony were observed to display gait abnormalities. While the expected phenotype of this transgenic line might conceivably lead to gait abnormalities, the expected pathology in the eccrine sweat glands of the foot pads seems not to be the cause. Histologic analysis indicates that these mice have significant changes in the cartilage of the stifle and hip joints, with variable pathology that is sometimes severe. Cartilage is severely thickened and hyperplastic, with multifocal acellular regions and multifocal cartilage necrosis and loss. Further, routine screening of the donating investigator's C3(1)/Tag founder line C colony identified female transgenic mice that retained tolerance to SV40 Tag but did not develop the expected phenotype (mammary tumors) - a result of transgene rearrangement/deletion to only one copy (or a partial copy) in the original chromosome 6 locus. The newer subline, called C3(1)/Tag-REAR, is available as Stock No. 030386.

Development

Expression Data

Control Suggestions

Selected References
Genotyping Protocols
MELT: Generic SV40 TAg 1
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, transgene carrier mice may be bred with wildtype mice from the colony or with FVB/NJ (Stock No. 001800) mice. While homozygotes are viable and fertile, pups born to homozygous mothers need foster mothers because of lactation difficulties.
Additional Breeding and Husbandry Support

Mating System
Hemizygote x Noncarrier

Citation
When using the C3(1)-TAg , C3(1)/Tag mouse strain in a publication, please cite the originating article(s) and include JAX stock #013591 in your Materials and Methods section.

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

Repository Live

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

Live Mouse
<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Hemizygous for Tg(C3-1-TAg)cJeg</td>
<td>$255.00</td>
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<tr>
<td></td>
<td>Male</td>
<td>Hemizygous for Tg(C3-1-TAg)cJeg</td>
<td>$255.00</td>
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<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Noncarrier</td>
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<tr>
<td></td>
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<td>$76.22</td>
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</table>

**Breeder Pair**

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<td></td>
</tr>
</tbody>
</table>

**Related Products and Services**

Frozen Mouse Embryo  $2,595.00 per straw or vial

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Terms of Use

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