Overview

Also Known As: MMTV/c-neu

MMTV/c-neu transgenic mice express an activated rat c-neu oncogene (Erbb2) under the direction of the mouse mammary tumor virus (MMTV) long terminal repeat (LTR) promoter. These mice may be useful in studying breast cancer.

Donating Investigator

Dr. Philip Leder, Harvard Medical School
These transgenic mice express the activated rat \( c-neu \) oncogene (\( Erbb2 \)) under the control of the mouse mammary tumor virus (MMTV) long terminal repeat (LTR) promoter. The activated, or transforming, version of the rat \( c-neu \) oncogene has a valine to glutamic acid substitution at acid 664 (Val\(^{664}\) to Glu\(^{664}\)). Non-uniform and random transgene expression is detected by RNase protection assay in mammary gland epithelium from hemizygous mice. Tumor formation is multifocal, stochastic and matches the expression pattern of the transgene. While no transgene expression is detected at 5 and 8 weeks of age in normal mammary gland tissue, it is detected in adenocarcinomas from older (23 week old) mice. The donating investigator indicates that 50% of transgenic mice derived from the TG.NK founder line, develop tumors within 6-12 months of age. Mice that are homozygous for the targeted mutation are viable, fertile and normal in size.
Genotyping Protocols
Standard PCR: Tg(MMTV-Erbb2)NK1Mul
QPCR: Tg(MMTV-Erbb2)NK1Mul
Genotyping resources and troubleshooting

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

Breeding Considerations
The resulting transgenic mice were bred to homozygosity, and the genotypes confirmed by quantitative PCR.

Mating System
Homozygote x Homozygote

Citation
When using the MMTV/c-neu mouse strain in a publication, please cite the originating article(s) and include JAX stock #005038 in your Materials and Methods section.

Available
Live mice available in varying quantities. Ask Customer Service for details.

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tr>
<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for Tg(MMTV-Erbb2)NK1Mul</td>
<td>$278.00</td>
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<tr>
<td></td>
<td>Male</td>
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<td>5 weeks</td>
<td>Female</td>
<td>Homozygous for Tg(MMTV-Erbb2)NK1Mul</td>
<td>$278.00</td>
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## Related Products and Services

<table>
<thead>
<tr>
<th>SEX</th>
<th>Description</th>
<th>Price</th>
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<tr>
<td>Male</td>
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</tbody>
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### 6 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 7 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 8 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 9 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 10 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 11 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

### 12 weeks
- Male: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00
- Female: Homozygous for Tg(MMTV-Erb2)NK1Mul, $278.00

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- All
- By Allele
- By Gene
- By Collection

All Related Strains