**B6;129-Trp53Nf1Suz12 / KcichJ**

**Stock No:** 027678 | Nf1/p53/Suz12

Gene Trap, Targeted Mutation

**CRYO RECOVERY**

**PLACE ORDER**

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

Also Known As: Nf1/p53/Suz12
These NPS+/- mice carry Trp53, Nf1, and Suz12 mutations on chromosome 11 (in cis) and develop high-grade gliomas and malignant peripheral nerve sheath tumors by approximately 3.5 months. They are suitable for use in applications related to the study of neurofibromatosis type 1 and tumor suppressor genes.

Donating Investigator
Karen Cichowski, Brigham and Women's Hospital - Harvard Medical School

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td><strong>Trp53</strong>&lt;sub&gt;tm1Tyj&lt;/sub&gt;</td>
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<tr>
<td>Allele Type</td>
<td>Gene Symbol</td>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>Trp53</td>
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| **Suz12**<sub>Gt(Betageo)1Khe</sub> |           |
| Allele Type | Gene Symbol | Gene Name |
| Gene trapped (Reporter, Null/Knockout) | Suz12 | SUZ12 polycomb repressive complex 2 subunit |
These NPS+/- mice carry Trp53, Nf1, and Suz12 mutations on chromosome 11 (in cis), which is similar to conditions found in some human neurofibromatosis type 1 patients. Triple homozygotes are embryonic lethal. By 3 months of age, more than half (54%) of mice heterozygous for all 3 alleles, in cis, develop high-grade gliomas. Triple heterozygotes develop malignant peripheral nerve sheath tumors by 3.5 months of age, develop histiocytic sarcoma, lymphoma, and angiosarcoma, and have a shortened lifespan (approximately 5 months).
Genotyping Protocols
Standard PCR: Suz12-Alternate 1
Standard PCR: Trp53 Alternate2
Standard PCR: Nf1
Genotyping resources and troubleshooting

Breeding Considerations
These mice carry Trp53, Nf1, and Suz12 mutations on chromosome 11 (in cis). When maintained as a live colony, triple heterozygotes may be bred. Heterozygotes have shortened lifespans (approximately 5 months) due to tumor formation, however. Triple homozygotes are embryonic lethal. If breeding triple mutant mice to wildtype mice, the resulting offspring may be segregating for each mutation.

Additional Breeding and Husbandry Support
Mating System
Wildtype Trp53tm1Tyj, Wildtype Nf1tm1Tyj, Wildtype Suz12Gt(Betageo)1Khe x Heterozygous Trp53tm1Tyj, Heterozygous Nf1tm1Tyj, Heterozygous Suz12Gt(Betageo)1Khe. No reciprocal mating

Citation
When using the Nf1/p53/Suz12 mouse strain in a publication, please cite the originating article(s) and include JAX stock #027678 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.
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