These Smad3 knock-out, reporter mice express lacZ in many developing embryonic tissues and in the colon of adult mice. Gastric tumors develop at about 6 months of age.

Donating Investigator
Luis F Parada, UT Southwestern Medical Center

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

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

Detailed Description

Mice homozygous for the targeted mutation are viable. Although fertile, they produce litters at reduced efficacy compared to wild type or heterozygous mice. Null mutants are approximately 20%-30% smaller than heterozygous or wildtype litter mates, with males exhibiting a more pronounced size reduction. Reporter lacZ expression is observed in many developing embryonic tissues with highest levels in mesenchymal derivatives. Expression in adult mutant mice is observed in the colon, with highest levels in the muscularis propria and submucosa with lower levels in the epithelium. At approximately 4-6 months of age, they develop gastric tumors. The donating investigator originally described spontaneous, deeply invasive colorectal adenocarcinomas that penetrate through all layers of the intestinal wall and metastasize to lymph nodes. Colorectal adenocarcinomas are not a component of the phenotype observed in this strain at The Jackson Laboratory. However, the gastric epithelium was found to contain neoplasms that were of a mixed nature. This deviation from the original phenotype may possibly be attributed to differing environmental conditions existing at The Jackson Laboratory facilities and those at the originating institution.

Development

Expression Data

Control Suggestions

Selected References

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Genotyping Protocols
Separated PCR: Smad3 alternate3
Genotyping resources and troubleshooting

Breeding Considerations
The expected coat color is agouti.

Additional Breeding and Husbandry Support

Citation
When using the Smad3- mouse strain in a publication, please cite the originating article(s) and include JAX stock #003451 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

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/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Wildtype for Smad3&lt;tm1Par&gt;</td>
<td>$2,854.50</td>
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Related Products and Services

Frozen Mouse Embryo
129-Smad3<tm1Par>/J Frozen Embryo
$2595.00

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

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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains