

## B6.Cg-Tg(SOD1\*G37R)42Dpr/J

Stock No: 008342 | G37R(42) SOD1

 Congenic, Transgenic

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

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Sclerosis (ALS). These mice may be useful in studying neuromuscular disorders, including ALS.

### Donating Investigator

Dr. Don Cleveland, Ludwig Institute for Cancer Research (UCSD)

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## GENETIC OVERVIEW

Genetic Background

Generation

### Tg(SOD1\*G37R)42Dpr

#### Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

## RESEARCH APPLICATIONS

Neurobiology Research

Mouse/Human Gene Homologs

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W P R I C E L I S T

### Details

#### Detailed Description

Mice hemizygous for this G37R-SOD1 transgene are viable and fertile. The expressed G37R mutant form of human *SOD1* is characterized as an enzymatically active, "gain of adverse function" mutation. Hemizygotes develop symptoms and pathology resembling human Amyotrophic Lateral Sclerosis (ALS), with paralyzation in one or more limbs attributable to the loss of motor neurons from the spinal cord. Transgenic mice from the highest expressing founder line (G37R(42) or line 42) express a 14-fold increase in SOD1 activity in spinal cord. High expression of G37R-SOD1 is associated with ALS pathology in motor neurons of the spinal cord and brainstem, widespread degenerative changes in other neuronal populations, and mild-to-moderate vacuolar changes in kidney. These high-expressing G37R(42) (or G37R-SOD1 line 42) transgenic mice may be useful in studying neuromuscular disorders, including Amyotrophic Lateral Sclerosis (ALS or Lou Gehrig's Disease).

The original publication by Wong et al assessed survival on a mixed genetic background and noted death occurring around 3.5-4 months of age. Since then, this allele has been backcrossed to C57BL/6J and made fully congenic. This change in genetic background has resulted in a change in disease onset and progression. In a study conducted at The Jackson Laboratory involving a cohort of 21 female transgenic mice, it was found that 90% of the animals survived to 25 weeks, 50% survived to 27 weeks, and death occurred in 100% of the mice by 29 weeks. IN SUMMARY: ON A C57BL/6J BACKGROUND SURVIVAL IS INCREASED TO 6-7 MONTHS.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### Tg(SOD1\*G37R)42Dpr

## – Disease/Phenotype

+ [Disease Terms](#)

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+ [Research Areas By Phenotype](#)

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+ [Mammalian Phenotype Terms by Genotype](#)

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+ [References](#)

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## – Technical Support

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

Standard PCR:[Tg\(SOD1\)](#)

Standard PCR:[Tg\(SOD\)](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

Mutant mice were bred to C57BL/6J mice to generate this congenic strain. When maintaining the live congenic colony, female wildtype (noncarriers) or C57BL/6J inbred mice can be bred to carrier males. It has been the experience in The Jackson Laboratory Repository colony that hemizygous females do not produce well.

[Additional Breeding and Husbandry Support](#)

### Mating System

Noncarrier x Hemizygote

### Citation

When using the G37R(42) SOD1 mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008342 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



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## Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

### CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Hemizygous or Non carrier for Tg(SOD1*G37R)42Dpr	\$2,854.50

### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	B6.Cg-Tg(SOD1*G37R)42Dpr/J Frozen Embryo	\$2595.00
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## 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.

## THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

## Terms Of Use

### TERMS OF USE

[General Terms and Conditions](#)

QUESTIONS ABOUT TERMS OF USE

### ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

### LICENSING INFORMATION

## ☰ Related Strains

- All
- By Allele
- By Gene
- By Collection




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