

STOCK Tg(P_{rnp}-TARDBP)₄JleI/J

Stock No: **016144**

 Transgenic

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

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such as ALS (Lou Gehrig's Disease) and frontotemporal lobar degeneration with ubiquitin aggregates.

Donating Investigator

Jeffrey L Elliott, The University of Texas Southwestern Medical Center

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(P_{rnp}-TARDBP)₄JleI

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

TDP43 transgenic mice express a full length human TAR DNA binding protein (*TARDBP* or TDP-43) cDNA inserted between exon 2 and exon 3 of the mouse prion protein (*Prnp*) gene. The transgene in founder line 4 was later found to have integrated on the X chromosome. Hemizygotes are viable and fertile, with mean survival of 109 days. TDP-43 is a ubiquitinated protein localized to the nucleus of nerve cells. Accumulations of mutated TDP-43 are involved in the development of Amyotrophic lateral sclerosis (ALS). These mice express human TDP-43 in the spinal cord and skeletal muscle. They exhibit progressive neurodegeneration characterized by bilateral proximal weakness, spasticity, reduced spontaneous movements and progressive weight loss. Variable phenotype penetrance is observed and some animals remain asymptomatic at 6 months of age. These mice contain a nuclear localized, less truncated form of TDP-43 than that observed in TDP-43*A315T mice (Stock No. [016143](#)). Disease progression is later than that observed in TDP-43*A315T mice.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(Prnp-TARDBP)4Jlel

Disease/Phenotype

Disease Terms

[+ Research Areas By Phenotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

[- 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

Pyrosequencing:[** human TARDBP*A315T](#)

Standard PCR:[Tg\(Prnp-TARDBP\)](#)

Separated MCA:[Tg\(Prnp-TARDBP\)](#)

Separated PCR:[Tg\(Prnp-TARDBP\)](#)

QPCR:[Human TARDBP](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, hemizygous mice may be bred to wild type from the colony. The transgene in this founder line was found to have integrated on the X chromosome. These mice have a mean survival time of 109 days and exhibit progressive neurodegeneration characterized by decreased motor function, however variable phenotype penetrance is observed and some animals remain asymptomatic at 6 months of age.

[Additional Breeding and Husbandry Support](#)

Citation

When using the STOCK [Tg\(Prnp-TARDBP\)^{4Jlel/J}](#) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #016144 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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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Hemizygous females and Non Carrier Males for Tg(Prnp-TARDBP)4Jlel/	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	STOCK Tg(Prnp-TARDBP)4Jlel/J Frozen Embryos	\$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

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Q U E S T I O N S A B O U T T E R M S O F U S E

ADDITIONAL USE RESTRICTIONS APPLY

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

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



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