

**B6;SJL-Tg(Thy1-TARDBP)4Singh/J**Stock No: **012836** **Transgenic**

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studying the accumulation of TDP-43 in neurodegenerative diseases such as ALS and FTLD.

**Our preclinical efficacy testing services offer scientific expertise and an array of target-based and phenotype-based outcome measures, both in vivo and at endpoint, for flexible study designs and assay development in mouse models of Amyotrophic Lateral Sclerosis. [See our full service platform.](#)**

Donating Investigator

Samir Kumar-Singh, University of Antwerp

[R E A D M O R E +](#)

## GENETIC OVERVIEW

**Genetic Background****Generation****?+pN1F4**  
(2021-01-04 00:00:00)

### Tg(Thy1-TARDBP)4Singh

**Alele Type**

Transgenic (Inserted expressed sequence)

[V I E W G E N E T I C S](#)

## RESEARCH APPLICATIONS

Neurobiology Research

[V I E W A L L R E S E A R C H A P P L I C A T I O N S](#)

## BASE PRICE

Starting at:

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\$255.00 Domestic price for female 4-week

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333.51 Domestic price for breeder pair

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\$2,854.50 Domestic price Cryo Recovery

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V I E W   P R I C E   L I S T

### Details

#### Detailed Description

Mice hemizygous for this TDP43 transgene are viable, fertile, and express human TAR DNA binding protein (*TARDBP* or TDP-43) gene. Expression is directed in neurons throughout the central nervous system by the mouse *Thy1* promoter. These TDP-43 transgenic mice exhibit a dose-dependent degeneration of cortical and spinal motor neurons and develop a spastic quadriplegia reminiscent of Amyotrophic Lateral Sclerosis (ALS). They also show degeneration of nonmotor cortical and subcortical neurons characteristic of frontotemporal lobar degeneration (FTLD). Neurons in the affected spinal cord and brain regions showed accumulation of TDP-43 nuclear and cytoplasmic aggregates that were both ubiquitinated and phosphorylated as observed in human ALS/FTLD disease. These mice show abnormal limb reflex by 14 months and 40% reduced motor performance by 15 months of age. The Donating Investigator maintains these mice as hemizygotes and mates carriers to produce homozygotes, which exhibit an accelerated phenotype. Homozygotes develop an abnormal hindlimb clasping reflex by 14 days, and a 2-fold decrease in the stride of hindlimbs and forelimbs. Their footprints were characterized by separated forelimb and hindlimb prints, markedly wide-based stance, small stride, and frequent off-line stumbling. In addition, TDP-43 was present in the nucleus and cytoplasm of 10% of spinal neurons in homozygotes and less than 1% in hemizygotes. These mice may be useful in studying the accumulation of TDP-43 in neurodegenerative diseases such as ALS and FTLD.

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#### Development

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#### Expression Data

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#### Control Suggestions

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#### Selected References

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### Genetics

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[+ Tg\(Thy1-TARDBP\)4Singh](#)

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## [- 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

End Point Analysis:[Smcx/Smcy-PROBE](#)  
Separated MCA:[Tg\(Thy1-TARDBP\)4Singh](#)  
Standard PCR:[Tg\(Thy1-TARDBP\)4Singh](#)  
Standard PCR:[Tg\(Thy1-TARDBP\)4Singh-Chr6](#)  
Probe:[Tg\(Thy1-TARDBP\)4Singh-Chr6-Probe](#)  
[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, hemizygous mice may be bred to wildtype mice from the colony or B6SJLF1/J mice (Stock No. [100012](#)). The Donating Investigator maintained these mice as hemizygotes and mates carriers to produce homozygotes, which exhibit an accelerated phenotype by 14 days of age.

### [Additional Breeding and Husbandry Support](#)

#### Mating System

Hemizygote x F1  
F1 x Hemizygote  
Hemizygote x Noncarrier  
Noncarrier x Hemizygote

### Citation

When using the B6;SJL-Tg(Thy1-TARDBP)4Singh/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #012836 in your Materials and Methods section.

### Animal Health Reports

[Facility Barrier Level Descriptions](#)

## ➔ Pricing & Availability



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

Available

### Domestic **International**

Pricing effective for USA, Canada and Mexico shipping destinations

LIVE MOUSE			
AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
4 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
5 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
5 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
6 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
6 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
7 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
7 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
8 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
8 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
9 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
9 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51

10 weeks	SEX	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
10 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
11 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
11 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
12 weeks	Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
	Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$255.00
12 weeks	Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51
	Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$78.51

BREEDER PAIR		
SEX	GENOTYPE	PRICE
Female	Hemizygous for Tg(Thy1-TARDBP)4Singh	\$333.51
Male	Noncarrier for Tg(Thy1-TARDBP)4Singh	
Female	Noncarrier for Tg(Thy1-TARDBP)4Singh	\$333.51
Male	Hemizygous for Tg(Thy1-TARDBP)4Singh	

CRYORECOVERY - DOMESTIC PRICING		
SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Hemizygous or Non carrier for Tg(Thy1-TARDBP)4Singh	\$2,854.50

RELATED PRODUCTS AND SERVICES		
<a href="#">Frozen Mouse Embryo</a>	B6;SJL-Tg(Thy1-TARDBP)4Singh/J Frozen Embryo	\$2595.00

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### LICENSING INFORMATION

Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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