

C57BL/6J-*Tbk1*^{em3Lutz}/1JStock No: **027080** | *Tbk1* G217R KI **Coisogenic, Endonuclease-Mediated Mutation**

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

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This CRISPR/Cas9 generated *Tbk1* G217R knock-in mutant of the *Tbk1* gene carries a G217R knock-in mutation (a GGG->AGG codon change). This strain may be useful in studies related to inflammatory response regulation, autophagy, and frontotemporal dementia and/or amyotrophic lateral sclerosis 4.

Donating Investigator

Cathleen Lutz, The Jackson Laboratory

[READ MORE +](#)**GENETIC OVERVIEW****Genetic Background****Generation***Tbk1*^{em3Lutz}**Allele Type**Endonuclease-mediated
(Humanized sequence)**Gene Symbol***Tbk1***Gene Name**

TANK-binding kinase 1

[VIEW GENETICS](#)**RESEARCH APPLICATIONS**

Neurobiology Research

Research Tools

Immunology, Inflammation and Autoimmunity Research

[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

Oligo-based CRISPR/cas9 endonuclease-mediated genome editing of the *Tbk1* (TANK-binding kinase 1) gene was used to introduce a GGG->AGG codon change (G217R point mutation). The targeted *Tbk1* gene encodes a serine/threonine kinase that is involved in inflammatory response regulation and autophagy. Mutations in this gene are associated with frontotemporal dementia and/or amyotrophic lateral sclerosis 4. Heterozygous mice are viable and fertile, homozygous mice are not viable. As the mice are characterized, we will modify the strain description and add phenotype data.

Development

Control Suggestions

Selected References

Genetics

Tbk1^{em3Lutzy}

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

End Point Analysis: [Tbk1](#)

End Point Analysis: [Smcx/Smcy-PROBE](#)

Sanger sequencing: [Tbk1-SEQ](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, these mice can be bred as heterozygous mice may be bred to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. [000664](#)). Homozygous mice are not viable.

[Additional Breeding and Husbandry Support](#)

Citation

When using the [Tbk1 G217R KI](#) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #027080 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](#)



Cryo
Recovery

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

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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT

DESCRIPTION

PRICE

Cryo Recovery	Heterozygous or wildtype for Tbk1 ^{em3(G217R)} Lutzky ⁺	\$2,854.50
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RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	C57BL/6J-Tbk1 ^{em3Lutzky} /1J Frozen Embryos	\$2595.00
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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

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The use of this mouse model is subject to the terms and conditions of the Limited License from The Broad Institute.

The use of this mouse model is subject to the terms and conditions of the Limited Use Label License from Caribou Biosciences, Inc.

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

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By Collection



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