



B 6 ; 1 2 9 S F ^{tnf1Gkl} / J

Stock No: 003008 | TNF α -

Targeted Mutation



AVAILABLE

P L A C E O R D E R

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

Overview



Also Known As: TNF α ⁻

Homozygous *TNF α KO* mice are useful when studying the role of tumor necrosis factor (TNF) in various systems, including inflammatory responses as seen in lung immunopathology and inflammatory bowel disease.

Donating Investigator

Dr. George Kollias, Biomedical Sciences Research Centre Alexander Fleming

READ MORE +

GENETIC OVERVIEW

Genetic Background Generation
?+pF7
(2019-03-01 00:00:00)

Tnf^{tm1Gkl}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Tnf</i>	tumor necrosis factor

VIEW GENETICS

RESEARCH APPLICATIONS

- Apoptosis Research
- Cancer Research
- Cardiovascular Research
- Endocrine Deficiency Research
- Hematological Research
- Immunology, Inflammation and Autoimmunity Research
- Diabetes and Obesity Research
- Internal/Organ Research

BASE PRICE

Starting at:

\$333.00 Domestic price for female 4-week

VIEW PRICE LIST

Details

Detailed Description

Development of both lymph nodes and Peyer's patches is normal in these mice, with homozygous mutants exhibiting no apparent outward phenotypic abnormalities. Homozygous mice completely lack splenic primary B cell follicles and cannot form organized follicular dendritic cell networks and germinal centers. TNF-deficient mice treated to induce skin carcinogenesis develop significantly less benign and malignant tumors than treated wildtype mice. Nonobese homozygous mutant mice show modest decreases in body weight, epididymal fat depot weight, and percent body fat (statistically significant in males at 28 weeks of age). Further characterization indicates that 28 week old male mutant mice display lower insulin, triglyceride, and leptin levels compared to wildtype controls. Characterization of TNF deficient homozygotes injected with gold-thioglucose (GTG) to induce hyperphagic obesity indicates that the presence of TNF does not affect the degree of obesity. However, fasting plasma glucose and insulin levels, and the insulin response to an oral glucose load were significantly decreased in obese TNF deficient mice compared to obese wildtype controls. These results indicate TNF plays a role in lipid and glucose metabolism but is not sufficient to completely eliminate hyperglycemia and hyperinsulinemia in this induced obesity model. *TNF α KO* mice are viable and fertile.

Development

Control Suggestions

Selected References

Genetics

Tnf^{tm1Gkl}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

+ References

- Technical Support

C H A T O  F L I N E

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: [Tnf^{tm1Gkl}](#)

Standard PCR: [Tnf^{tm1Gkl}](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

[This strain is a good breeder.](#)

When maintaining a live colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Appearance

black

Related Genotype: *a/a*

Citation

When using the TNF α mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #003008 in your

[Materials and Methods section](#)

[Facility Barrier Level Descriptions](#)

 [AX18 \(Maximum\)](#)

- 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	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
5 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
6 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00

	SEX	Homozygous for Tnf ^{tm1Gkl}	\$333.00
7 weeks		Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
8 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
9 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
10 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
11 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00
12 weeks	Female	Homozygous for Tnf ^{tm1Gkl}	\$333.00
	Male	Homozygous for Tnf ^{tm1Gkl}	\$333.00

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.

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.

Terms Of Use

Terms of Use

[General Terms and Conditions](#)

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

Licensing Information

Phone: 207-288-6470

Email: TechTran@jax.org

JAX® Mice, Products & Services Conditions of Use

"MICE" means mouse strains, their progeny derived by inbreeding or crossbreeding, unmodified derivatives from mouse strains or their progeny supplied by The Jackson Laboratory ("JACKSON"). "PRODUCT(S)" means biological materials supplied by JACKSON, and their derivatives. "SERVICES" means projects conducted by JACKSON for other parties that may include but are not limited to the use of MICE or PRODUCTS. "RECIPIENT" means each recipient of MICE, PRODUCTS, or SERVICES provided by JACKSON including each institution, its employees and other researchers under its control. MICE or PRODUCTS shall not be: (i) used for any purpose other than internal research, (ii) sold or otherwise provided to any third party for any use, or (iii) provided to any agent or other third party to provide breeding or other services. Acceptance of MICE, PRODUCTS or SERVICES from JACKSON shall be deemed as agreement by RECIPIENT to these conditions, and departure from these conditions requires JACKSON's prior written authorization.

No Warranty

MICE, PRODUCTS AND SERVICES ARE PROVIDED "AS IS". JACKSON EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS, IMPLIED, OR STATUTORY, WITH RESPECT TO MICE, PRODUCTS OR SERVICES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF NON-INFRINGEMENT OF ANY PATENT, TRADEMARK, OR OTHER INTELLECTUAL PROPERTY RIGHTS.

Credit for PRODUCTS or SERVICES

In case of dissatisfaction for a valid reason and claimed in writing by a purchaser within ninety (90) days of receipt of, PRODUCTS or SERVICES, JACKSON will, at its option, provide credit or replacement for the PRODUCT received or the SERVICES provided; JACKSON makes no other representations and this shall be the exclusive remedy of the purchaser. [Please note specific policy for live mice.](#)

Animal Care and Use for SERVICES

Consistent with the requirement for a written understanding regarding animal care and use, the JACKSON Animal Care and Use Committee will review the animal care and use protocol(s) associated with any SERVICES to be performed at JACKSON, and JACKSON shall have ultimate responsibility and authority for the care of animals while on site or in JACKSON custody.

No Liability

In no event shall JACKSON, its trustees, directors, officers, employees, and affiliates be liable for any causes of action or damages, including any direct, indirect, special, or consequential damages, arising out of the provision of MICE, PRODUCTS, or SERVICES, including economic damage or injury to property and lost profits, and including any damage arising from acts or negligence on the part of JACKSON, its agents or employees. Unless prohibited by law, in purchasing or receiving MICE, PRODUCTS, or SERVICES from JACKSON, purchaser or recipient, or any party claiming by or through them, expressly releases and discharges JACKSON from all such causes of action or damages, and further agrees to defend and indemnify JACKSON from any costs or damages arising out of any third party claims.

MICE, PRODUCTS or SERVICES are to be used in a safe manner and in accordance with all applicable governmental rules and regulations.

The foregoing represents the General Terms and Conditions applicable to JACKSON's MICE, PRODUCTS or SERVICES. In addition, special terms and conditions of sale of certain MICE, PRODUCTS, or SERVICES may be set forth separately in JACKSON web pages, catalogs, price lists, contracts, and/or other documents, and these special terms and conditions shall also govern the sale of these MICE, PRODUCTS and SERVICES by JACKSON, and by its licensees and distributors.

Acceptance of delivery of MICE, PRODUCTS or SERVICES shall be deemed agreement to these terms and conditions. No purchase order or other document transmitted by purchaser or recipient that may modify the terms and conditions hereof, shall be in any way binding on JACKSON, and instead the terms and conditions set forth herein, including any special terms and conditions set forth separately, shall govern the sale of MICE, PRODUCTS or SERVICES by JACKSON.

☰ Related Strains

All

By Allele

By Gene

By Collection

All Related Strains





DO YOU NEED BALB/c MICE?

Rely on JAX to provide the models you need, when you need them.

LEARN MORE



CONTACT



DONATE



SUBSCRIBE

JAX HOME CAREERS PRIVACY POLICY TERMS OF USE

SEND FEEDBACK

RESEARCH CENTERS MOUSE GENOME INFORMATICS

MOUSE PHENOME DATABASE

Leading the search for

TOMORROW'S CURES

©2019 THE JACKSON LABORATORY

Choose other country or region