

FVB.Cg-Tg(MMTVTGFA)254Rjc/J

Stock No: 002953 | TGF α line 254

 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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gene (TGF α) under control of the mouse mammary tumor virus (MMTV) LTR and exhibit alveolar and sebaceous gland hyperplasia.

Donating Investigator

IMR Colony, The Jackson Laboratory

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(MMTVTGFA)254Rjc

Allele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Cancer 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

Important Note

This strain is homozygous for the retinal degeneration allele *Pde6b^{rd1}*.

Detailed Description

Mice carrying the (MMTVTGFA)254Rjc transgene are viable and fertile, but lactate insufficiently to support the litter. Virgin transgenic mice show no mammary gland abnormalities prepubertally, but adult virgin mice have considerable alveolar gland hyperplasia. Pregnant transgenic mice show marked proliferation of the stromal cells, and alveolar secretion is markedly increased compared to nontransgenic mice. After multiple pregnancies, isolated adenocarcinomas develop. There is no apparent phenotypic effect in males. In females transgene expression was localized to the small ducts and alveoli in both virgin and pregnant mice as evidenced by in situ hybridization and by immunohistochemistry. Immunostaining also revealed some stromal staining in the hyperplastic areas. *Egfr* mRNA expression was also increased in mammary tissues expressing high levels of the transgene. Crosses between TGFA transgenic mice and TGFB1 transgenic mice demonstrate that these growth factors oppose each other's action on mammary gland development. The B6D2-TgN(MMTVTGFA)254Rjc line is notable for sebaceous gland hyperplasia, which occurs in both male and female mice. The hyperplasia was evidenced as multiple raised, white plaques and nodules on the abdominal skin. No dysplasia or sebaceous cell carcinoma was observed. High expression of TGFA mRNA and TGFA protein was detected in the areas of sebaceous hyperplasia.

Expression Data

Control Suggestions

Selected References

Genetics

Tg(MMTVTGFA)254Rjc

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

Separated PCR: [Tg\(MMTVTGFA\)](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, wildtype (non-carrier) females from the colony or FVB/NJ inbred females (Stock No. [001800](#)) may be bred to transgene carrier males. The expected coat color from breeding is White Bellied Agouti, Albino.

[Additional Breeding and Husbandry Support](#)

Mating System

+/+ sibling x Hemizygote

Appearance

albino

Related Genotype: Tyr^c/Tyr^c

Citation

When using the TGF α line 254 mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #002953 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 or Non Carrier for Tg(MMTVTGFA)254Rjc	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB.Cg-Tg(MMTVTGFA)254Rjc/J Frozen Embryos	\$2595.00
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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.

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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

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



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