



B 6 . 1 2 9 P 2 R 6 ^{sm/Litt} / J

Stock No: 007572 | Rorc(yt)-EGFP

Congenic, 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: Rorc(γ)-EGFP

These mice harbor the reporter Rorc^{GFP} mutant and may be useful in studying immune system homeostasis, T cell repertoire selection, CD4/CD8 double positive thymocyte survival, lymphoid organogenesis, proinflammatory T-helper cell development, mucosal immunology, and the role of inflammatory disease in autoimmunity and cancer progression.

Donating Investigator

Dr. Dan R. Littman, New York University Medical Center

[READ MORE +](#)

GENETIC OVERVIEW

Genetic Background	Generation
	N6+N3F4 (2019-06-12 00:00:00)

Rorc^{tm2Litt}

Allele Type	Gene Symbol	Gene Name
Targeted (Reporter, Null/Knockout)	<i>Rorc</i>	RAR-related orphan receptor gamma

[VIEW GENETICS](#)

RESEARCH APPLICATIONS

Research Tools
Immunology, Inflammation and Autoimmunity Research
Internal/Organ 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:

\$255.00 Domestic price for female 4-week

510.00 Domestic price for breeder pair

V I E W P R I C E L I S T

Details

Detailed Description

Mice homozygous for this $Rorc(\gamma t)^{GFP}$ (or $ROR\gamma t^{GFP}$) mutant allele are viable and fertile. While *Rorc* mRNA is detected in liver in $Rorc(\gamma t)^{GFP}$ homozygotes, mRNA and protein for the thymus-specific isoform (*Rorc* γt) encoded by the targeted allele are not detected in the thymus. EGFP expression reports *Rorc*(γt) transcription in the thymi of adult $Rorc(\gamma t)^{GFP}$ mice. Homozygous mice exhibit abnormal lymph node, Peyer's patch, and lymphoid tissue inducer (LTi) cell development. Mice with *Rorc* γt -deficient T cells lack tissue-infiltrating proinflammatory T-helper cells (Th17 cells), and are protected from induced autoimmune disease (EAE) on this genetic background.

The donating investigator also reports increased thymoma incidence in homozygotes, with 80-90% of homozygotes succumbing to thymomas by 12-14 weeks of age. It should be noted that the time to onset may vary due to vivarium-specific environmental factors. In the JAX Repository colony, we have observed that female homozygotes live to 9-11 weeks of age and most male homozygotes die before 8 months of age (October 2015). Some researchers observe a much earlier onset. These *Rorc* γt^{GFP} mutant mice may be useful in applications related to immune homeostasis, T cell repertoire selection, CD4/CD8 double positive (CD4⁺/CD8⁺) thymocyte survival, and the role of inflammatory disease in autoimmunity and cancer progression.

Development

Expression Data

Control Suggestions

Selected References

Genetics

– 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: [Rorc^{tm2Litt}](#)

Standard PCR: [Rorc^{tm2Litt}](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

Although homozygous mice are fertile, they have increased thymoma incidence.

The donating investigator reports 80-90% of homozygotes succumb to thymomas by 12-14 weeks of age. It should be noted that the time to onset may vary due to vivarium-specific environmental factors. In the JAX Repository colony, we have observed that female homozygotes live to 9-11 weeks of age and most male homozygotes die before 8 months of age (October 2015). Some researchers observe a much earlier onset.

The Jackson Laboratory Repository maintains its live colony by breeding heterozygous mice with homozygous mice.

[Additional Breeding and Husbandry Support](#)

Mating System

Heterozygote x Homozygote

Citation

When using the Rorc^{tm2Litt}-EGFP mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #007572 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)

 [AX11 \(Maximum\)](#)

– 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	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
4 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
5 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
5 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
6 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
6 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
7 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
7 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
8 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
8 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
9 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
9 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
10 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00
10 weeks	Female	Homozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Homozygous for Rorc ^{trn2Litt}	\$255.00
11 weeks	Female	Heterozygous for Rorc ^{trn2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{trn2Litt}	\$255.00

11 weeks	SEX	Homozygous for Rorc ^{tr2Litt}	\$255.00
		Homozygous for Rorc ^{tr2Litt}	\$255.00
12 weeks	Female	Heterozygous for Rorc ^{tr2Litt}	\$255.00
	Male	Heterozygous for Rorc ^{tr2Litt}	\$255.00
12 weeks	Female	Homozygous for Rorc ^{tr2Litt}	\$255.00
	Male	Homozygous for Rorc ^{tr2Litt}	\$255.00

Breeder Pair			PRICE
SEX	GENOTYPE		
Female	Heterozygous for Rorc ^{tr2Litt}		\$510.00
Male	Homozygous for Rorc ^{tr2Litt}		

Related Products and Services		
Frozen Mouse Embryo	B6.129P2(Cg)-Rorc<tr2Litt>/J Frozen Embryo	\$2595.00

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