

C57BL/6N-Tg(Scn10a-EGFP)ALmp/J

Stock No: **025400** | Scn10a-EGFP transgenic line A

 Coisogenic, Transgenic

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

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neural crest-derived sensory neurons; this recapitulates the majority of the endogenous Na_v1.8 expression pattern. These mice may be useful to study Na_v1.8-expressing neural crest-derived neurons, nociceptive neurons, tetrodotoxin-resistant Na⁺-channel currents, and to identify regulatory elements responsible for the restrictive expression of Na_v1.8.

Donating Investigator

Henry L Puhl III, Laboratory of Molecular Physiology, NIH/NIAAA

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(Scn10a-EGFP)ALmp

Alele Type

Transgenic (Reporter)

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Sensorineural Research
Research Tools
Cell Biology 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

Scn10a-EGFP transgenic line A has the 3.7 kbp Na_v1.8 putative promoter region (*Scn10a*) directing EGFP reporter expression to neural crest-derived sensory neurons; this recapitulates the majority of the endogenous Na_v1.8 expression pattern.

Specifically, bright EGFP fluorescence is observed in peripheral sensory neurons (neural crest-derived ganglia / dorsal root ganglia) in the cell bodies, fibers, and both central and peripheral terminals.

However, EGFP expression was not detected in several cranial sensory ganglia including nodose, geniculate and petrosal ganglia (placodal-derived sensory ganglia).

As expected, no EGFP expression is shown in sympathetic neurons.

Discrete brain regions co-express Na_v1.8 and EGFP, including amygdala, brainstem, globus pallidus, lateral hypothalamus, paraventricular hypothalamus and olfactory tubercle.

Proper Na_v1.8 reporter expression outside the nervous system includes cardiac tissue (consistent with cardiac ganglion) and in the Grueneberg ganglion (a nasal olfactory organ capable of detecting alarm pheromones and cold temperatures). Because nasal fluorescence is most visible when transgenic pups are less than 3 days old, this can be used to identify transgenic pups in addition to genotyping.

Weak EGFP antibody staining is reported in pancreas and kidney.

EGFP fluorescence in the superficial layers of the footpad epidermis is suggested to be ectopic.

No EGFP expression is reported in the myocardium, testes, eyes, spleen, liver, lung, small intestine, large intestine or stomach.

Hemizygous mice from Scn10a-EGFP transgenic line A are viable and fertile. The donating investigator has not attempted to generate homozygous mice to date (February 2015).

These mice may be useful to study Na_v1.8-expressing neural crest-derived neurons, tetrodotoxin-resistant Na⁺-channel currents (TTX-R /_{Na}), nociceptive neurons, and to identify regulatory elements responsible for the restrictive expression of Na_v1.8.

+ Development

+ Expression Data

+ Control Suggestions

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[- Disease/Phenotype](#)

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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:[Tg\(Scn10a-EGFP\)ALmp](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, transgenic carrier mice may be bred with wildtype (noncarrier) mice from the colony or C57BL/6NJ inbred mice (Stock No. [005304](#)). The donating investigator has not attempted to generate homozygous mice to date (February 2015).

[Additional Breeding and Husbandry Support](#)

Mating System

Noncarrier x Hemizygote

Hemizygote x Noncarrier

Citation

When using the Scn10a-EGFP transgenic line A mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #025400 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.

Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Hemizygous or non carrier for Tg(Scn10a-EGFP)ALmp	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	C57BL/6N-Tg(Scn10a-EGFP)ALmp/J Frozen Embryos	\$2595.00
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