The Jackson Laboratory

# B6.FVB-Tg(CAG-EGFP,-ALPP)2.6Ggc/J

Stock No: **008226**

Congenic, Transgenic

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

PLACE ORDER

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will have the STOP-polyA sequence deleted in the *cre*-expressing tissue(s), permitting dicistronic expression of human Placental Alkaline Phosphatase (PLAP or *ALPP*) and farnesylated Enhanced Green Fluorescent Protein (eGFP-F; optimized to target expression to the cytoplasmic side of the plasma membrane). These piGAP transgenic reporter mice allow Cre-inducible, eGFP-F and hPLAP expression in multiple cell and tissue types.

## Donating Investigator

IMR Colony, The Jackson Laboratory

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## GENETIC OVERVIEW

**Genetic Background** **Generation**

### Tg(CAG-EGFP,-ALPP)2.6Ggc

**Allele Type**

Transgenic (Conditional ready (e.g. floxed), Reporter)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools
Neurobiology Research

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

## Details

### Detailed Description

Mice harboring the piGAP transgene are viable and fertile, with expression of the eGFP-F-IRES-hPLAP dicistronic gene blocked by an unpstream *loxP*-flanked STOP-polyA sequence. When bred to mice that express Cre recombinase, the resulting offspring will have the STOP-polyA sequence deleted in the *cre*-expressing tissue(s), permitting dicistronic expression of eGFP-F-IRES-hPLAP. When transgene expression is induced in neurons, human Placental Alkaline Phosphatase (PLAP or *ALPP*) outlines axonal and dendritic projections and can be visualized by a simple histochemical reaction in fixed cells. Likewise, *in vivo* fluorescence of farnesylated Enhanced Green Fluorescent Protein (eGFP-F; optimized to target expression to the cytoplasmic side of the plasma membrane) labels axons, and dendrites throughout their length. Because both proteins localize alongside the neuronal surface, concomitant detection of cell body, neurites, and presynaptic and postsynaptic sites may be observed in the same neuron. These piGAP transgenic reporter mice allow Cre-inducible, eGFP-F and hPLAP expression in multiple cell and tissue types.

For example, when bred to mice expressing Cre recombinase in neural tissues (such as Nestin-Cre (see Stock No. 003771) or
CamKIIa-Cre (see Stock No. 005359)), the resulting offspring may be useful in studying axon guidance, circuit formation, and synaptic plasticity.

*In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the phenotype of piGAP mice on a C57BL/6J genetic background could vary from that originally described. We will modify the strain description if necessary as published results become available.*

### Development

### Expression Data

### Control Suggestions

### Selected References

## Genetics

Tg(CAG-EGFP,-ALPP)2.6Ggc

## Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

## Technical Support

CONTACT TECHNICAL SUPPORT

### Genotyping Protocols

Genotyping resources and troubleshooting

### Breeding Considerations

Mutant mice were bred to C57BL/6J mice to generate this congenic strain. When maintaining the live congenic colony, hemizygous mice may be bred to wildtype siblings or to C57BL/6J inbred mice. The donating investigator reports that attempts to generate homozygous mice (on the FVB/NCrl genetic background) were not successful and suggests that homozygosity may be lethal at some embryonic stage.

Additional Breeding and Husbandry Support

### Citation

When using the B6.FVB-Tg(CAG-EGFP,-ALPP)2.6Ggc/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #008226 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(CAG-EGFP,-ALPP)2.6Ggc | $2,854.50 |

### RELATED PRODUCTS AND SERVICES

| | | |
|---|---|---|
| Frozen Mouse Embryo | B6.FVB-Tg(CAG-EGFP -ALPP)2.6Ggc/J Frozen Embryo | $2595.00 |

### 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. We do not guarantee breeding performance and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

## Terms Of Use

### TERMS OF USE

General Terms and Conditions

QUESTIONS ABOUT TERMS OF USE

## ADDITIONAL USE RESTRICTIONS APPLY

Use of MICE by companies or for-profit entities requires a license prior to shipping.

## LICENSING INFORMATION

Phone: 207-288-6470
Email: TechTran@jax.org

## Related Strains

All

By Allele

By Gene

By Collection