



STOCK (ROSA) 26Sor^{m1(CAG-Brainbow2.1)Cle} / J

Stock No: 013731 | R26R-Confetti , R26R-Brainbow2.1 , Rosa26-CAG-Brainbow2.1...

Gene Trap, Targeted Mutation



AVAILABLE

PLACE ORDER

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

Overview

Also Known As: R26R-Confetti , R26R-Brainbow2.1 , Rosa26-CAG-Brainbow2.1/Confetti
R26R-Confetti mice are available on a congenic C57BL/6J background (Stock No. [017492](#)) and that congenic version will replace this mixed background strain in the near future.

The R26R-Confetti conditional allele has a CAG promoter followed by a floxed-STOP cassette and the Brainbow 2.1 construct all targeted into the *Gt(ROSA)26Sor* locus. The R26R-Confetti allele functions as a stochastic multicolor Cre recombinase reporter of multiple fluorescent proteins from a single genomic locus. These R26R-Confetti mice allow a way to label and distinguish individual / adjacent cells with nuclear localized, membrane-targeted, or cytoplasmic fluorescent proteins in *cre* recombined cells.

Donating Investigator

Hans Clevers, Hubrecht Institute

READ MORE +

GENETIC OVERVIEW

| | |
|--------------------|---|
| Genetic Background | Generation |
| | F?+F23 (2020-01-20 00:00:00) |

[Gt\(ROSA\)26Sor^{tm1}\(CAG-Brainbow2.1\)Cle](#)

| Allele Type | Gene Symbol | Gene Name |
|--|----------------------|-------------------------------------|
| Targeted (Conditional ready (e.g. floxed), Reporter) | <i>Gt(ROSA)26Sor</i> | gene trap ROSA 26, Philippe Soriano |

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Research Tools

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$333.00 Domestic price for female 4-week

Details

Detailed Description

Mice homozygous for the R26R-Confetti conditional allele are viable and fertile, with a CAG promoter, *loxP* site, and STOP cassette preventing transcription of the downstream Brainbow 2.1 sequences. The Brainbow 2.1 region contains two *loxP*-flanked dimers, each uniquely positioned in head-to-tail tandem. One dimer has nuclear-localized green fluorescent protein (hrGFP11) and a reverse-oriented cytoplasmic yellow fluorescent protein (mYFP). The other dimer has cytoplasmic red fluorescent protein (tdimer2(12)) and a reverse-oriented membrane-tethered cyan fluorescent protein (mCerulean). The Brainbow2.1 region may be written as *loxP*-STOP-*loxP*-GFP-PFY-*Pxol*-*loxP*-RFP-PFC-*Pxol* to show the transcriptional direction of each part. When bred to mice that express Cre recombinase, the resulting offspring may have a recombination event that stochastically places one of the four fluorescent proteins into position directly downstream of the CAG promoter within the *cre*-expressing tissues. Because this CAG promoter-driven Brainbow 2.1 reporter construct was targeted for insertion into the *Gt(ROSA)26Sor* locus, fluorescent protein expression is determined by which tissues express Cre recombinase. The donating investigator reports that mice do not express any fluorescent cells prior to introduction of Cre recombinase. The donating investigator confirms fluorescent protein expression following exposure to *cre* can be detected by direct fluorescence (and presumably also via mRNA (in situ hybridization) and antibody staining (immunohistochemistry)).

Initial Cre recombination outcomes may recombine the *loxP*-flanked STOP cassette (green), invert the *loxP*-STOP-*loxP*-GFP-PFY-*Pxol* region (yellow), recombine the *loxP*-STOP-*loxP*-GFP-PFY-*Pxol*-*loxP* region (red), or invert the entire *loxP*-STOP-*loxP*-GFP-PFY-*Pxol*-*loxP*-RFP-PFC-*Pxol* region (blue). Other recombination outcomes may not remove the STOP cassette and result in no fluorescent reporter labeling in *cre*-expressing cells. In addition, sequential recombination outcomes may reduce the construct to a single invertible dimer segment that can continue to invert as long as Cre recombinase is present. The donating investigator also reports that weaker *cre* expression favors inverting the *loxP*-STOP-*loxP*-GFP-PFY-*Pxol* region rather than removal of the *loxP*-STOP-*loxP* region: this results in less green-fluorescing cells / more non-fluorescing cells than is expected if using a strong *cre*-expressing line.

[View R26R-Confetti images \[pdf\].](#)

Development

Expression Data

Control Suggestions

Selected References

Genetics

[Gt\(ROSA\)26Sor^{tm1\(CAG-Brainbow2.1\)Cre}](#)

Disease/Phenotype

Disease Terms

Research Areas By Genotype

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

[- Technical Support](#)

TECHNICAL SUPPORT CHAT

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Genotyping Protocols

Standard PCR: [Gt\(ROSA\)26Sor^{tm1\(CAG-Brainbow2.1\)Cle}](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred together or with wildtype mice from the colony. The donating investigator reports breeding homozygous mice together with no fertility or viability problems.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Citation

When using the R26R-Confetti, R26R-Brainbow2.1, Rosa26-CAG-Brainbow2.1/Confetti mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #013731 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)

 AX10 (Standard)

[- Pricing & Availability](#)



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Available

Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

Live Mouse

| AGE | SEX | GENOTYPE | PRICE |
|---------|--------|---|----------|
| 4 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 5 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 6 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |

| 7 weeks | SEX | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
|----------|--------|---|----------|
| | | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 8 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 9 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 10 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 11 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| 12 weeks | Female | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |
| | Male | Homozygous for Gt(ROSA)26Sor ^{tm1(CAG-Brainbow2.1)Cle} | \$333.00 |

Related Products and Services

| | | |
|---------------------|--|-----------|
| Frozen Mouse Embryo | STOCK Gt(ROSA)26Sor<tm1(CAG-Brainbow2.1)Cle>/J Frozen Embryo | \$2595.00 |
|---------------------|--|-----------|

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