



# B 6 . CgJ-( R O S A ) 2 6 S o r <sup>tm9(CA<sup>tdT</sup>mp<sup>to</sup>)Hze</sup> / J

Stock No: 007909 | Ai9 or Ai9(RCL-tdT)

Congenic, Gene Trap, Targeted Mutation



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## Overview



### Also Known As: Ai9 or Ai9(RCL-tdT)

Ai9 is a Cre reporter allele that has a *loxP*-flanked STOP cassette preventing transcription of a CAG promoter-driven red fluorescent protein variant (tdTomato) - all inserted into the *Gt(ROSA)26Sor* locus. Ai9 mice express robust tdTomato fluorescence following Cre-mediated recombination. This strain is congenic on the C57BL/6J genetic background.

### Donating Investigator

Hongkui Zeng, Allen Institute for Brain Science

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## GENETIC OVERVIEW

Genetic Background	Generation
	<a href="#">N7F1</a> (2018-11-21 00:00:00)

[Gt\(ROSA\)26Sor<sup>tm9\(CAG-tdTomato\)</sup>Hze](#)

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

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### BASE PRICE

Starting at:

\$236.78 Domestic price for female 5-week

VIEW PRICE LIST

### Details

#### Detailed Description

Ai9 mice homozygous for this Rosa-CAG-LSL-tdTomato-WPRE conditional allele are viable and fertile. A *loxP*-flanked STOP cassette is designed to prevent transcription of the red fluorescent protein variant tdTomato (see below). When bred to mice that express Cre recombinase, the resulting offspring will have the STOP cassette deleted in the *cre*-expressing tissue(s) - resulting in robust tdTomato fluorescence. Because this CAG promoter-driven reporter construct is inserted into the *Gt(ROSA)26Sor* locus, robust tdTomato expression is determined by which tissue(s) express Cre recombinase. These Ai9 mice are useful as a Cre reporter strain - expressing tdTomato fluorescence following Cre-mediated recombination.

Importantly, the donating investigator reports that very low levels of tdTomato expression may be present prior to introduction of Cre recombinase - but the tdTomato expression levels after Cre recombination are significantly greater than those baseline levels. As such, it is recommended that researchers include Cre-negative Ai9 controls to establish the baseline tdTomato levels in their experiments.

Of note, the *FRT* sites flanking the mutation allow for additional targeted replacement of the reporter sequences through *Flp*-mediated recombination if so desired. Similarly, the *attB/attP*-flanked selection cassette may be removed by introduction of the site-specific bacteriophage PhiC31 integrase if so desired.

For characterization information, see images at the Allen Institute for Brain Science website ([Ai9 images](#)).

The Allen Institute for Brain Science website has specific characterization information for several Cre Driver and Cre Reporter lines. Please see their website for images of [Allen Institute for Brain Science experiments performed with all lines](#).

*Of note, Ai9 mice may also be available on the original B6;129S6 mixed genetic background (see Stock No. 007905).*

The Ai9 and Ai14 alleles are very similar in design - differing only in the presence or absence of an *att* site-flanked selection cassette at the 3' end of the targeted allele. Specifically, the Ai9 allele (*Gt(ROSA)26Sor<sup>tm9(CAG-tdTomato)Hze</sup>*; Stock Nos. [007905/007909](#)) is designed as Rosa26::CAG::*frt::loxP-STOP-loxP::tdTomato::WPRE::polyA::attB-PGK-frt-neo-polyA-attP*, whereas the Ai14 allele (*Gt(ROSA)26Sor<sup>tm14(CAG-tdTomato)Hze</sup>*; Stock Nos. [007908/007914](#)) is designed as Rosa26::CAG::*frt::loxP-STOP-loxP::tdTomato::WPRE::polyA::attL*.

#### Development

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+ Expression Data

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+ Control Suggestions

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+ Selected References

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- Genetics

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+ *Gt(ROSA)26Sor<sup>tm9(CAG-tdTomato)</sup>Hze*

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- Disease/Phenotype

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+ Disease Terms

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+ Research Areas By Genotype

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+ Mammalian Phenotype Terms by Genotype

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+ References

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- 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: [Gt\(ROSA\)26Sor\(tdTomato-WPRE\)](#)

[Genotyping resources and troubleshooting](#)

## Breeding Considerations

Mutant mice were bred to C57BL/6J inbred mice for many generations to establish this congenic strain. When maintaining the live congenic colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

## Mating System

Homozygote x Homozygote

## Citation

When using the [Ai9](#) or [Ai9\(RGL-tdT\)](#) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #007909 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)

 [AX12 \(Maximum\)](#)

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## Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

### Live Mouse

AGE	SEX	GENOTYPE	PRICE
5 weeks	Female	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
	Male	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
6 weeks	Female	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
	Male	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
7 weeks	Female	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
	Male	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
8 weeks	Female	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
	Male	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
9 weeks	Female	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78
	Male	Homozygous for Gt(ROSA)26Sor <sup>tm9(CAG-tdTomato)</sup> Hze	\$236.78

### Related Products and Services

Frozen Mouse Embryo	<a href="#">B6.Cg-Gt(ROSA)26Sor<sup>tm9(CAG-tdTomato)</sup>Hze</a> /J	\$2595.00
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