

**STOCK *Gt(ROSA)26Sor<sup>tm1(Tbx1/GFP)Bem</sup>/Mmjax***  
MMRRC Stock No: **37516-JAX** | Tbx1-GFP<sup>fl<sup>ox</sup></sup>

 Targeted Mutation

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Tbx1-GFP<sup>fl<sup>ox</sup></sup> mice conditionally express a GFP-tagged TBX1 protein. TBX1, a T-box transcription factor, is associated with Velo-cardio-facial/ DiGeorge syndrome (VCFS/DGS) syndrome. This strain may be useful for studying TBX1 and it's role in neurogenesis, inner ear and heart development.

### Donating Investigator

Bernice Morrow, Albert Einstein College of Medicine

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## GENETIC OVERVIEW

Genetic Background

Generation

*Gt(ROSA)26Sor<sup>tm1(Tbx1/GFP)Bem</sup>*

**Alele Type**

Targeted (Conditional ready (e.g. floxed), Reporter, Inserted expressed sequence)

**Gene Symbol**

*Gt(ROSA)26Sor*

**Gene Name**

gene trap ROSA 26, Philippe Soriano

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

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## Details

### Detailed Description

These *Tbx1*-GFP<sup>fllox</sup> mice possess a *loxP*-flanked neomycin cassette that prevents expression of a *Tbx1* (T-box1)-GFP fusion gene. TBX1 encodes a T-box transcription factor that maps to the center of the human 22q11.2, a region associated with Velo-cardio-facial/ DiGeorge syndrome (VCFS/DGS) syndrome. TBX1 is essential for proper ear and heart development.

Mice that are homozygous for this allele are viable and fertile. When bred to mice that express tissue-specific Cre recombinase, resulting offspring will overexpress a GFP-tagged TBX1 protein in *cre*-expressing tissues. Expression of a single copy of *Tbx1*-GFP partially rescues heart and inner ear defects in *Tbx1*-null embryos, however, expression of two copies results in postnatal lethality due to cardiac outflow tract defects. This strain may be useful for studying TBX1 and its role in neurogenesis, inner ear and heart development.

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### 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>tm1(Tbx1/GFP)Bem</sup>*

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## Disease/Phenotype

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### Disease Terms

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### Research Areas By Phenotype

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### Mammalian Phenotype Terms by Genotype

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### References

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## Technical Support

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 Alternate1](#)  
[Genotyping resources and troubleshooting](#)

### Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the Tbx1-GFP<sup>fllox</sup> mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #37516 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](#)*

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