Fox-2 Transgenic Mice

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INNOVATION

UCLA researchers have developed transgenic mice in which two exons of the *Fox-2* (Rbfox2, RBM9) gene are flanked by *loxP* sites to permit deletion of the gene when the mice are crossed to mice expressing Cre recombinase. Fox-2 is an RNA-binding protein that regulates the alternative splicing of multiple transcripts in neurons and embryonic stem cells (ESCs). Fox-2 has been implicated in neurological disease, including spinocerebellar ataxia type I (SCAI), and has been shown to regulate the alternative splicing of ~7% of all genes in human ESCs. These mice are valuable research tools that can be used to analyze the development and differentiation of ESCs and brain *in vivo.*

APPLICATIONS

- This mouse strain allows researchers to delete Fox-2 in the tissue or cell type of interest.

RELATED MATERIALS

- Kuroyanagi H. Fox-1 family of RNA-binding proteins. Cell Mol Life Sci. 2009 Dec;66(24):3895-907
- Yeo GW, et al. An RNA code for the FOX2 splicing regulator revealed by mapping RNA-protein interactions in stem cells. Nat Struct Mol Biol. 2009 Feb;16(2):130-7.

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Fox-1 Transgenic Mice

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INVENTORS

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OTHER INFORMATION

KEYWORDS

Research tools; mouse model

CATEGORIZED AS

- **Research Tools**
  - Animal Models

RELATED CASES

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