mGFAP-Cre-Recombinase Transgenic Mouse Strains

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SUMMARY

BACKGROUND

INNOVATION

The laboratory of Dr. Michael Sofroniew in the Department of Neurobiology at UCLA has developed transgenic mouse lines expressing the Cre recombinase from the mouse glial fibrillary acidic protein (GFAP) promoter. mGFAP-Cre mice were generated using a 15-kb promoter cassette containing all promoter regulatory elements (Ref. 1). GFAP is expressed in various central nervous system (CNS) cells, including astrocytes. The mGFAP-Cre mouse strains have utility in generating conditional knockout mice as well as developing reporter labeling schemes for CNS-related research.

Two strains of mGFAP-Cre mice were generated, 73.12 and 77.6. Both strains target most astrocytes in the CNS. Due to insertional differences, the 77.6 mice target fewer adult neural stems cells that also express GFAP, which is useful for certain experimental strategies. Both strains work efficiently and breed well.

APPLICATIONS

ADVANTAGES

STATE OF DEVELOPMENT

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OTHER INFORMATION

KEYWORDS

Neuroscience, Mouse models, CNS

CATEGORIZED AS

- **Research Tools**
  - Animal Models

RELATED CASES

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