

GFAP (GA5) Mouse mAb (Alexa Fluor® 555 Conjugate)

✓ 100 µl
(100 Tests)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #2670
Swiss-Prot Acc. #P14136

Applications	Species Cross-Reactivity*	Isotype
IF-F Endogenous	H, M, R	Mouse IgG1

Description: This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 555 fluorescent dye and tested in-house for direct immunofluorescence of rat cerebellum. The unconjugated antibody #3670 reacts with human, mouse and rat GFAP protein. CST expects that GFAP (GA5) Mouse mAb (Alexa Fluor® 555 Conjugate) will also recognize GFAP in these species.

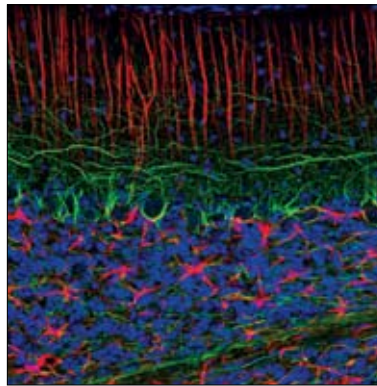
Background: The cytoskeleton consists of three types of cytosolic fibers: microfilaments (actin filaments), intermediate filaments and microtubules. Major types of intermediate filaments are distinguished and expressed in particular cell types: cytokeratins in epithelial cells, glial fibrillary acidic protein (GFAP) in glial cells, desmin in skeletal, visceral and certain vascular smooth muscle cells, vimentin in cells of mesenchymal origin and neurofilaments in neurons. GFAP and vimentin form intermediate filaments in astroglial cells and modulate their motility and shape (1). In particular, vimentin filaments are present at early developmental stages, while GFAP filaments are characteristic of differentiated and mature brain astrocytes. Thus, GFAP is commonly used as a marker for intracranial and intraspinal tumors arising from astrocytes (2). In addition, GFAP intermediate filaments are also present in non-myelin forming Schwann cells in the peripheral nervous system (3).

Specificity/Sensitivity: GFAP (GA5) Mouse mAb (Alexa Fluor® 555 Conjugate) detects endogenous levels of total GFAP protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with native GFAP purified from pig spinal cord. The antibody was conjugated to Alexa Fluor® 555 under optimal conditions with an F/P ratio of 2-6.

Background References:

- (1) Eng, L.F. et al. (2000) *Neurochem. Res.* 25, 1439–51.
- (2) Goebel, H.H. et al. (1987) *Acta. Histochem. Suppl.* 34, 81–93.
- (3) Jessen, K.R. et al. (1990) *Development* 109, 91–103.



Confocal immunofluorescent analysis of normal rat cerebellum using GFAP (GA5) Mouse mAb (Alexa Fluor® 555 Conjugate) (red) and Neurofilament-L (C28E10) Rabbit mAb #2837 (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Storage: Supplied in PBS (pH 7.2), less than 0.1% sodium azide, 2 mg/ml BSA. Store at 4°C. Protect from light. *Do not freeze.*

* Species cross-reactivity other than rat is determined by Western blot using the unconjugated antibody.

Recommended Antibody Dilutions:

Immunofluorescence (IF-F) 1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc., for research use only, except for use in combination with DNA microarrays. The Alexa Fluor® dyes (except for Alexa Fluor® 430 dye) are covered by pending and issued patents.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected