

GFAP (GA5) Mouse mAb (Alexa Fluor® 488 Conjugate)

✓ 100 µl
(100 Tests)

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New 11/08

This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

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

Description: This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct immunofluorescence of rat cells. The unconjugated antibody GFAP (GA5) Mouse mAb #3670 reacts with human, mouse and rat GFAP protein. CST expects that GFAP (GA5) Mouse mAb (Alexa Fluor® 488 Conjugate) will also recognize GFAP in these species.

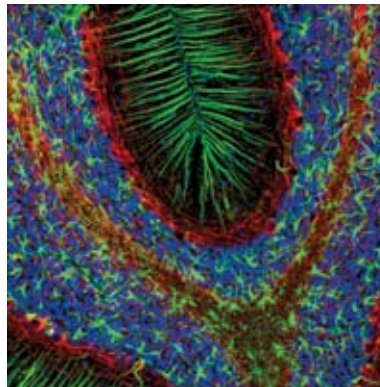
Background: The cytoskeleton consists of three types of cytosolic fibers: microfilaments (actin filaments), intermediate filaments and microtubules. Major types of intermediate filaments are specifically expressed in particular cell types: cytokeratins in epithelial cells, glial fibrillary acidic protein (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® 488 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® 488 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 rat brain using GFAP (GA5) Mouse mAb (Alexa Fluor® 488 Conjugate) (green) and Neurofilament-L (DA2) Mouse mAb #2835 (red). Blue pseudocolor = DRAQ5™ (fluorescent DNA dye).

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

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:

Immunocytochemistry (IF-F) 1:100

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

Directions for Use: Dilute the conjugated antibody 1:100 in PBS/1% BSA/0.3% Triton X-100, and stain tissue by adding 100 µl of the diluted antibody to each section. See protocol for more details.

Companion Products:

GFAP (GA5) Mouse mAb #3670

α/β-Tubulin Antibody #2148

GFAP (GA5) Mouse mAb (Alexa Fluor® 555 Conjugate) #3656

GFAP (GA5) Mouse mAb (Alexa Fluor® 647 Conjugate) #3657

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—zebra fish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected