#3670 Store at –20°C

GFAP (GA5) Mouse mAb

☑ 100 µl
(10 western blots)

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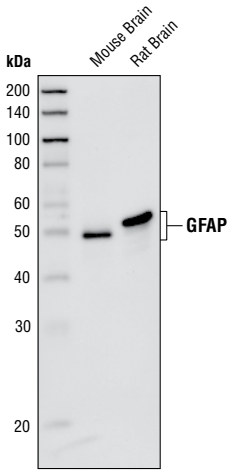
Entrez-Gene ID #2670
Swiss-Prot Acc. #P14136

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-F Endogenous	H, M, R	50 kDa	Mouse IgG1**

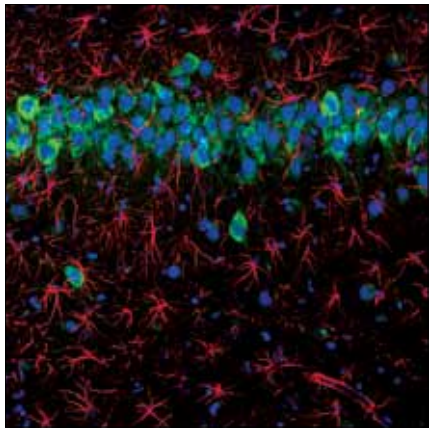
Background: The cytoskeleton consists of three types of cytosolic fibers: microfilaments (actin filaments), intermediate filaments and microtubules. Major types of intermediate filaments are distinguished and expressed in particular cell types: cytokeratins (epithelial cells), glial fibrillary acidic protein, GFAP (glial cells), desmin (skeletal, visceral and certain vascular smooth muscle cells), vimentin (mesenchyme origin) and neurofilaments (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 detects endogenous levels of total GFAP protein.

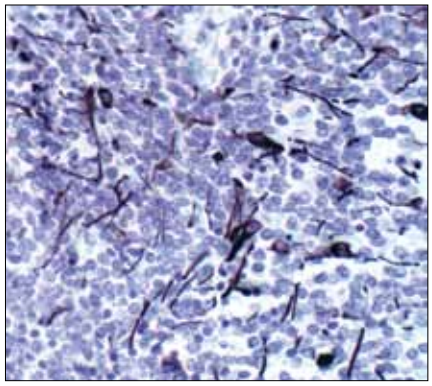
Source/Purification: Monoclonal antibody is produced by immunizing animals with native GFAP purified from pig spinal cord.



Western blot analysis of extracts from mouse and rat brain, using GFAP (GA5) Mouse mAb.



Confocal immunofluorescence image of rat hippocampus labeled with GFAP (GA5) Mouse mAb (red), Phospho-S6 Ribosomal Protein (Ser235/236) (2F9) Rabbit mAb (Alexa Fluor® 488 Conjugate) #4854 (green), and CREB (48H2) Rabbit mAb #9197 (blue).



Immunohistochemical staining analysis of paraffin-embedded human medulloblastoma, using GFAP (GA5) Mouse mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-F)	1:300

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.

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.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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 Species enclosed in parentheses are predicted to react based on 100% homology.