Revision 6

#3670 Store at -20C

GFAP (GA5) Mouse mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P, IF-F, IF-IC, FC-FP	H M R	Endogenous	50	Mouse IgG1	#P14136	2670

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50 - 1:200
Immunofluorescence (Frozen)	1:400 - 1:800
Immunofluorescence (Immunocytochemistry)	1:400 - 1:800
Flow Cytometry (Fixed/Permeabilized)	1:400 - 1:1600

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier-free (BSA and azide free) version of this product see product #56522.

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.

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 nonmyelin-forming Schwann cells in the peripheral nervous system (3).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen)
IF-IC: Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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