Revision 7

Store at +4C

#3656

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

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F	H M R	Endogenous	Mouse IgG1	#P14136	2670

Product Usage Information

Application	Dilution
Immunofluorescence (Frozen)	1:50 - 1:200

Storage

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

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.

Product 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 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).

Applications Key

IF-F: Immunofluorescence (Frozen)

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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