

## Basic Information

<b>Product Name</b>	Anti-GFAP Antibody (Clone#3F2)	
<b>Gene Name</b>	GFAP	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG1	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, IF	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human GFAP recombinant protein (Position: Q93-M432). Human GFAP shares 94% amino acid (aa) sequence identity with both mouse and rat GFAP.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	50 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

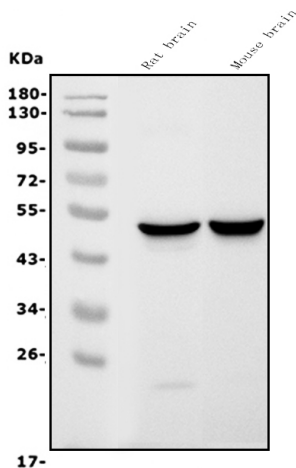
## Background Information

Glial fibrillary acidic protein (GFAP) is a protein that is encoded by the GFAP gene in humans. It is an intermediate filament(IF) protein that is expressed by numerous cell types of the central nervous system (CNS) including astrocytes, and ependymal cells. It is mapped to 17q21.31. GFAP is closely related to its non-epithelial family members, vimentin, desmin, and peripherin, which are all involved in the structure and function of the cell's cytoskeleton. GFAP is thought to help to maintain astrocyte mechanical strength, as well as the shape of cells. This gene has been shown to play a role in mitosis by adjusting the filament network present in the cell. GFAP is necessary for many critical roles in the CNS. What's more, GFAP also plays a role in astrocyte-neuron interactions as well as cell-cell communication.

## Reference

Anti-GFAP Antibody (Clone#3F2)被引用在44文献中。

## Selected Validation Data

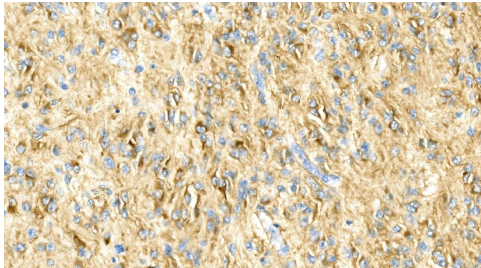


Western blot analysis of GFAP using anti-GFAP antibody (M00213-8). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: Rat brain tissue lysates,

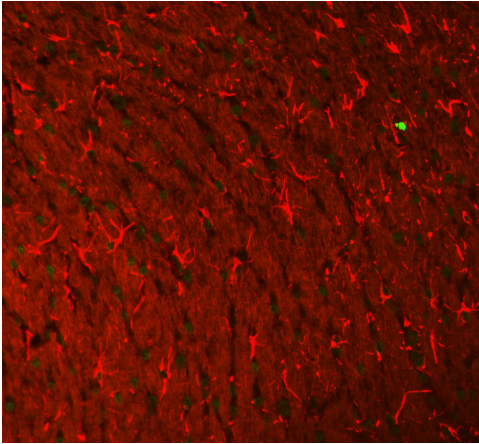
Lane 2: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-GFAP antigen affinity purified monoclonal antibody (M00213-8) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for GFAP at approximately 50 kDa. The expected band size for GFAP is at 50 kDa.



IHC analysis of GFAP using anti-GFAP antibody (M00213-8).

GFAP was detected in a paraffin-embedded section of human glioma tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-GFAP Antibody (M00213-8) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of Histone H3, GFAP using anti- GFAP antibody (M00213-8) , anti- Histone antibody (A12477-2) ,detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution ) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5µg/mL mouse anti-GFAP, DyLight488 Conjugated goat anti-rabbit IgG (BA1127), rabbit anti-MBP Antibody , Cy3 Conjugated goat anti-mouse IgG (BA1031) overnight at 4°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.