

Basic Information

Product Name	Anti-GFAP Antibody (Clone#3F2)	
Gene Name	GFAP	
Source	Mouse	
Isotype	IgG1	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IF	
Contents	500 ug/ml antibody with PBS , 0.02% Na ₂ S ₂ O ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	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.	
concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	50KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (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. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

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.

Selected Validation Data

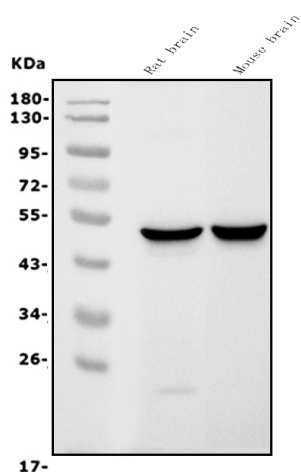


Figure 1. Western blot analysis of anti- GFAP antibody (M00213-8).

The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: Rat brain tissue lysates,

Lane 2: mouse brain tissue lysates. Use rabbit anti- GFAP 1:1000,

probed with a goat anti-mouse IgG-HRP secondary antibody. The

signal is developed using an Enhanced Chemiluminescent detection

(ECL) kit (Catalog # EK1001). A specific band was detected for

GFAP at approximately 50KD. The expected band size for GFAP is at

50KD.

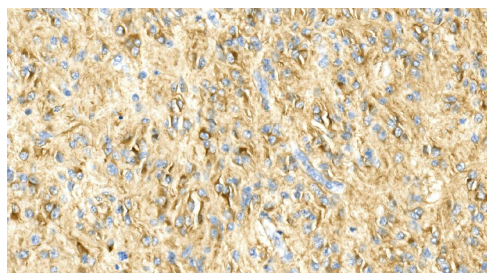


Figure 2. IHC analysis using anti- GFAP antibody

(M00213-8). detected in paraffin-embedded section of human

glioma tissue. Biotinylated goat anti-mouse IgG was used as

secondary antibody. The tissue section was developed using

Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as

the chromogen.

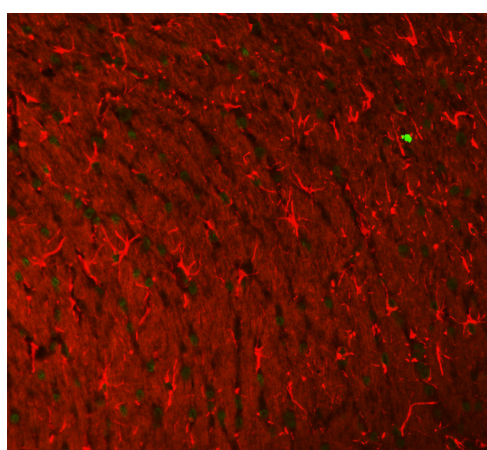


Figure 4. IF analysis of Histone H3, GFAP using anti- GFAP antibody

(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.