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Anti-GFAP Antibody Picoband™ (monoclonal, 3F2)

Catalog # ABO14918

Specification

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Product Information

Application	**WB, IHC, IF**
Primary Accession	P14136
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) . Tested in IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Additional Information

Gene ID 2670

Other Names
Glial fibrillary acidic protein, GFAP, GFAP

Calculated MW
50 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Mouse, rat
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat
 Immunofluorescence, 5 µg/ml, Rat

Protein Name
Glial fibrillary acidic protein

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

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.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross-reactivity with other proteins.

Storage	**Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.**

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Protein Information

Name GFAP

Function
GFAP, a class-III intermediate filament, is a cell-specific marker that, during the development of the central nervous system, distinguishes astrocytes from other glial cells.

Cellular Location
Cytoplasm. Note=Associated with intermediate filaments

Tissue Location
Expressed in cells lacking fibronectin.

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Images

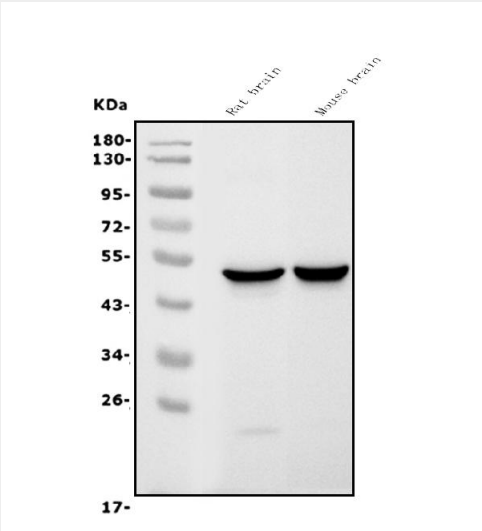

Figure 1. Western blot analysis of GFAP using anti-GFAP antibody (M00213-8).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. 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.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-GFAP antigen affinity purified monoclonal antibody (Catalog # M00213-8) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for GFAP at approximately 50KD. The expected band size for GFAP is at 50KD.

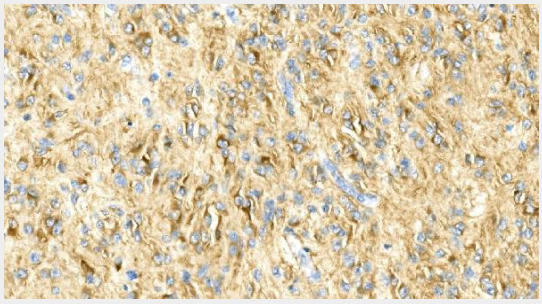

Figure 2. IHC analysis of GFAP using anti-GFAP antibody (M00213-8).
GFAP was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-GFAP Antibody (M00213-8) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

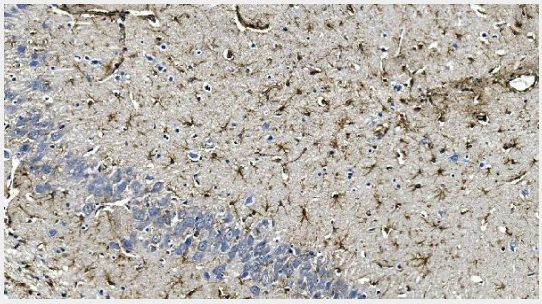

Figure 3. IHC analysis of GFAP using anti-GFAP antibody (M00213-8).
GFAP was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-GFAP Antibody (M00213-8) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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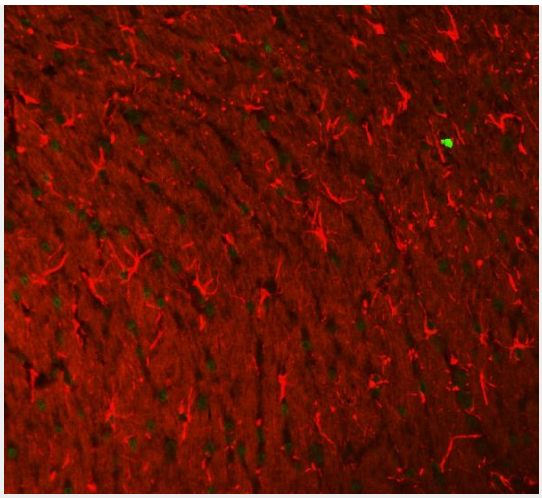

Figure 4. IF analysis of Histone H3 and GFAP using anti-Histone H3 antibody (A12477-2) and anti-GFAP antibody (M00213-8).
Histone H3 and GFAP was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/mL rabbit anti-Histone H3 antibody (A12477-2) and mouse anti-GFAP antibody (M00213-8) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127), Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Anti-GFAP Antibody Picoband™ (monoclonal, 3F2) - Background

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.