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Anti-GFAP Antibody (Monoclonal, G-A-5)

Catalog Number: MA1045

About Gfap

Glial fibrillary acidic protein (GFAP) is an intermediate filament protein of 52Kda. GFAP gene is mapped to human 17q21. GFAP is a useful marker of astroglia in the brain. Mutations in GFAP, encoding glial fibrillary acidic protein, are associated with Alexander disease.

Overview

Product Name	Anti-GFAP Antibody (Monoclonal, G-A-5)
Reactive Species	Human, Mouse, Pig, Rat
Description	Boster Bio Anti-GFAP Antibody (Monoclonal, G-A-5) catalog # MA1045. Tested in IF, IHC, IHC-F, WB applications. This antibody reacts with Human, Mouse, Pig, Rat.
Application	IF, IHC, IHC-F, WB
Clonality	Monoclonal G-A-5
Formulation	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Storage Instructions	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.
Host	Mouse
Uniprot ID	P47819

Technical Details

Immunogen	GFAP from pig spinal cord.
Predicted Reactive Species	Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml.
Purification	Ascites
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this

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	kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.5-1ug/ml, Human, mouse, pig, rat Immunohistochemistry (Paraffin-embedded Section), 0.4-1ug/ml, Human, pig, rat, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, pig, rat, - Immunofluorescence, 2ug/ml, Rat

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Anti-GFAP Antibody (Monoclonal, G-A-5) (MA1045) Images

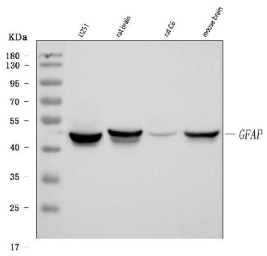

Figure 1. Western blot analysis of GFAP using anti-GFAP antibody (MA1045).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human U251 whole cell lysates,
Lane 2: rat brain tissue lysates,
Lane 3: rat C6 whole cell lysates,
Lane 4: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 # MA1045) at 1 ug/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 50 kDa. The expected band size for GFAP is at 54 kDa.

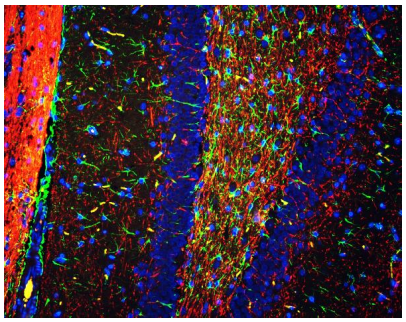

Figure 2. IF analysis of GFAP using anti-GFAP antibody (MA1045) and anti-MBP antibody (PA1050)
GFAP was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6 epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL mouse anti-GFAP Antibody (MA1045)and anti-MBP Antibody (PA1050) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) and Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) were 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.

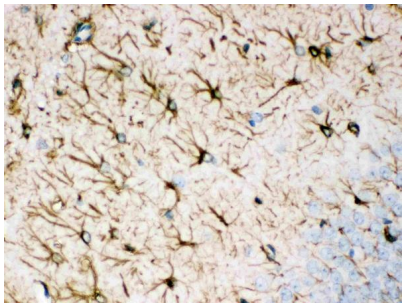

Figure 3. IHC analysis of GFAP using anti-GFAP antibody (MA1045).
GFAP was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml mouse anti-GFAP Antibody (MA1045) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

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103 Publications Citing This Product

1. PubMed ID: 10.3892/ol.2016.4690, Label-retaining assay enriches tumor-initiating cells in glioblastoma spheres cultivated in serum-free medium

2. PubMed ID: 33966147, Xiang Z,Jiang X,Ji R,Yuan H.Enhanced expression of P2X4 purinoceptors in pyramidal neurons of the rat hippocampal CA1 region may be involved ischemia-reperfusion injury.Purinergic Signal.2021 May 9.doi:10.1007/s11302-021-09780-z.Epub ahead of print.PMID:33966147.

3. PubMed ID: 33965566, Zhu X,Yao Y, Yang J,Zhang C,Li X,Zhang A,Liu X,Zhang C,Gan G.ADAM10 suppresses demyelination and reduces seizure susceptibility in cuprizone-induced demyelination model.Free Radic Biol Med.2021 May 6:S0891-5849(21)00282-3.doi:10.1016/j.freeradbiomed.2021.05.001.Epub ahead of print.PMID:33965566.

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