

Anti-Glial Fibrillary Acidic Protein, clone GA5

Monoclonal Antibody

Cat. # MAB360

Lot # LV1538797

pack size: 100 µL

Store at -20°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, IC, IH, IH(P)	B, Ch, H, M, Po, R, Rb	IgG1	N/A	M	~ 51 kDa	NM_002055.2

Background

Glial fibrillary acidic protein is a class-III intermediate filament. GFAP is the main constituent of intermediate filaments in astrocytes and serves as a cell specific marker that distinguishes differentiated astrocytes from other glial cells during the development of the central nervous system.

Presentation

Unpurified mouse monoclonal IgG1 liquid in buffer containing 15 mM sodium azide.

Specificity

Glial fibrillar acidic protein. On western blots of extracts from a human glioma cell line (U33CG/343MG), MAB360 recognizes a band at approximately 51 kDa corresponding to GFAP (Debus, 1983). By immunohistochemistry it recognizes astrocytes and Bergmann glia cells, glioma and glial cell derived tumors. Shows no cross-reactivity with vimentin.

Species Cross-reactivity

Reacts with Bovine, Chicken, Human, Mouse, Porcine (Pig), Rabbit and Rat. Reactivity with other species has not been determined.

Immunogen

Purified GFAP from porcine spinal cord

Molecular Weight

~ 51 kDa

Storage and Handling

Stable for 1 year at -20°C from date of receipt.

Handling Recommendations: Upon receipt, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance.

Control

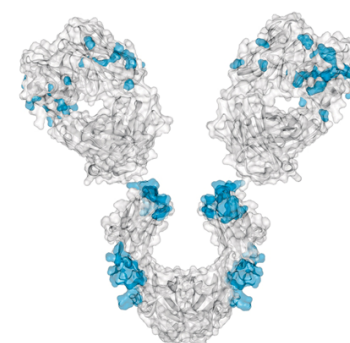
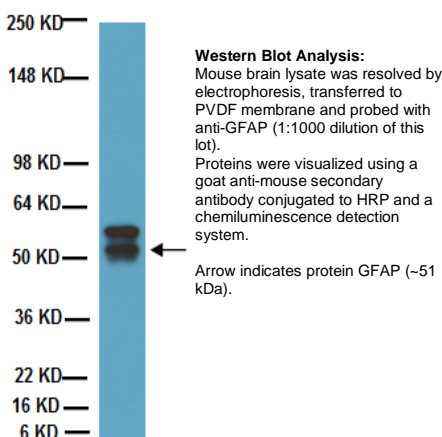
Positive Control: Cultured astrocytes, brain tissue (white matter), spinal chord, retina

Quality Control Testing

REPRESENTATIVE LOT DATA.

Routinely evaluated by Western Blot on Mouse brain lysates.

Western Blot Analysis: 1:1000 dilution of this lot detected GFAP on 10 µg of Mouse brain lysates.



References

1. Dottori, Mirella, *et al.* (2008). *Stem Cells*. 26: 1146-54.
2. Mudo, G, *et al.* (2007). *Neuroscience*. 145:470-83.
3. Serrano, A., *et al.* (2005). *Neuropharmacology*. 49:208-219.
4. Ward, MM, *et al.* (2004). *Cell Tissue Res*. 315:305-310.
5. Martinez-Rodriguez, R., *et al.* (2003). *J. Neuroscience Research*. 73:708-716.

Additional Research Applications

Immunocytochemistry: A previous lot was used on cultured mammalian cells.

Immunohistochemistry(paraffin):

1:400-1:800 dilution from a previous lot was used on alcohol-fixed paraffin embedded sections of rat brain (cerebrum or cerebellum) and human brain.

Optimal working dilutions must be determined by the end user.

APPLICATION LEGEND: WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence IH(P) Immunohistochemistry (Paraffin)

SPECIES LEGEND: B Bovine Ch Chicken H Human M Mouse Po Porcine (Pig) R Rat Rb Rabbit

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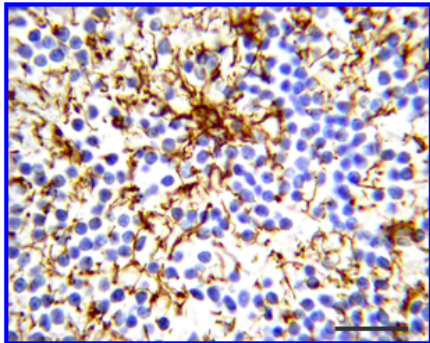
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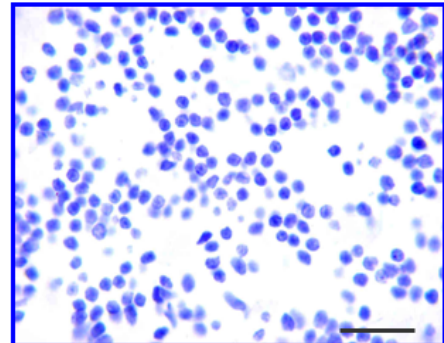
Additional Research Applications

Immunohistochemistry(paraffin): Representative images from a previous lot.

Pictures of Optimal Staining With Citrate Buffer Epitope Retrieval: Human Brain



GFAP (GA5) staining of Human Brain. Tissue pretreated with Citrate Buffer, pH 6.0. Pre-diluted polyclonal antibody, IHC-Select® Detection with HRP-DAB. Glial cells stain strongly (brown). Bar = 25 µm.



Negative Control staining of Human Brain. Tissue pretreated with Citrate Buffer, pH 6.0. Negative Control Reagent, IHC-Select® Detection with HRP-DAB. No background staining is detected. Bar = 25 µm.

PROTOCOL

Western Blot

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA with 0.05% Tween®-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of Anti-Glial Fibrillary Acidic Protein, clone GA5 diluted in freshly prepared 5% BSA for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice (a goat anti-mouse HRP conjugated IgG, Catalog # 12-349 1:1000 dilution was used) in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Use Spray and Glow Catalog # 17-373 to visualize results. Use as directed.

RELATED PRODUCTS (specific)

cat #	description
AB1540	■ Anti-Glial Fibrillary Acidic Protein
AB5541	■ Anti-Glial Fibrillary Acidic Protein
MAB5628	■ Anti-Glial Fibrillary Acidic Protein
MAB3402	■ Anti-Glial Fibrillary Acidic Protein, clone GA5
MAB5804	■ Anti-Glial Fibrillary Acidic Protein
MAB3402X	■ Anti-Glial Fibrillary Acidic Protein, Clone GA5, AlexaFluor® 488 Conjugated
CBL411	■ Anti-Glial Fibrillary Acidic Protein, clone GF12-24
AB1540-100UG	■ Glial Fibrillary Acidic Protein
IHCR2078-6	■ IHC Select® Anti-Glial Fibrillary Acidic Protein, prediluted
IHCR2079-6	■ IHC Select® Anti-Glial Fibrillary Acidic Protein, prediluted, clone GA5
AG230	■ Glial Fibrillary Acidic Protein, porcine
IHC2078-6	■ IHC Select® Anti-Glial Fibrillary Acidic Protein, prediluted
IHC2079-6	■ IHC Select® Anti-Glial Fibrillary Acidic Protein, prediluted, clone GA5
AB9598	■ Anti-Glial fibrillary acidic protein delta
07-650	■ Anti-GFAP+1
AP124P	■ Goat anti-Mouse IgG, Peroxidase Conjugated, H+L

RELATED PRODUCTS (non-specific)

cat #	description
IPVH00010	■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPFL00010	■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPVH07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm
ISEQ07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	■ Immobilon Western Chemillum HRP Substrate 100 mL
17-373	■ Spray & Glow™ ECL WB Detection System 1 ea
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

Please visit www.millipore.com for additional product information, test data and references

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