

# Anti-Glial Fibrillary Acidic Protein, clone GA5

Monoclonal Antibody

Cat. # MAB360

Lot # LV1634946

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.

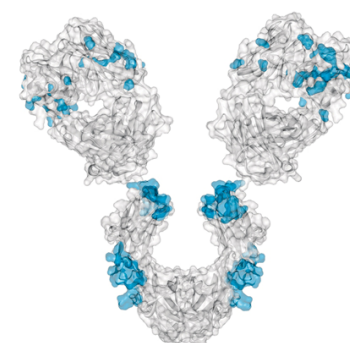
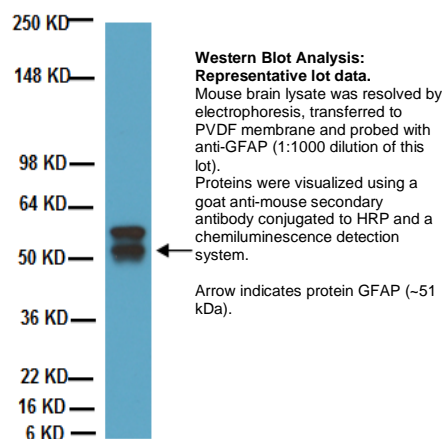
### Control

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

### Quality Control Testing

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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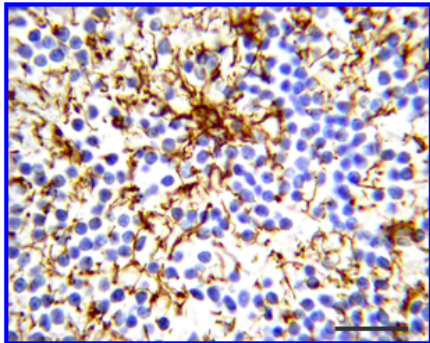
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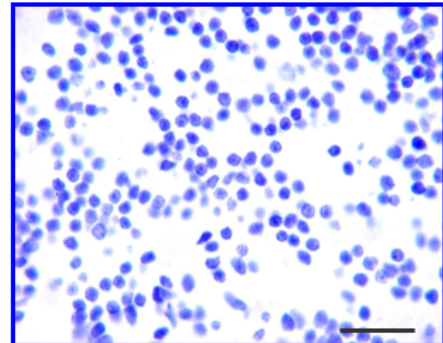
**Additional Research Applications**

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 Chemilum 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

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