

Mouse anti-Human GFAP Monoclonal Antibody | anti-GFAP antibody

Mouse Anti-Human GFAP-BIOT

CATALOG # AAA78621	HOST Mouse	REACTIVITY Human	APPLICATIONS ELISA
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PRODUCT SYNONYMS

GFAP; Monoclonal Antibody; Mouse Anti-Human GFAP-BIOT; Mouse Anti-Human GFAP - Biotin; Mouse Anti-Human GFAP; anti-GFAP antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse (BALB/c) IgG2b, kappa
Clone Number	SB61b1
Specificity	Reacts with human GFAP (~ 50 kDa)¹ Glial Fibrillary Acid Protein (GFAP) was discovered by Bignami et al 2 as a major fibrous protein of multiple sclerosis plaques. It was subsequently found to be a member of the 10 nm or intermediate filament protein family, specifically the intermediate filament protein family Class III, which also includes peripherin, desmin and vimentin. GFAP is heavily, and specifically, expressed in astrocytes and certain other astroglia in the central nervous system, in satellite cells in peripheral ganglia, and in non-myelinating Schwann cells in peripheral nerves.³ Many types of brain tumors, presumably of astrocytic origin, heavily express GFAP. In addition, neural stem cells frequently strongly express GFAP. It is also found in the lens epithelium, Kupffer cells of the liver, in some cells of salivary tumors, and has been reported in erythrocytes. Therefore, antibodies to GFAP are very useful as markers of astrocytic cells and neural stem cells, and for distinguishing neoplasms of astrocytic origin from other neoplasms in the central nervous system. Although its function is not fully understood, GFAP protein is probably involved in controlling the shape and movement of astrocytes. The protein may also play a significant role in the interactions of astrocytes with other cells, which are required for the formation and maintenance of the myelin layer that covers nerve cells. Additionally, GFAP may assist in maintaining the protective blood-brain barrier. In adults, GFAP levels increase as a result of the proliferation of astrocytes that occurs in response to a variety of physical, chemical and etiological insults, including Alzheimer's disease, epilepsy and multiple sclerosis. Alexander's disease was recently shown to be caused by point mutations in the protein-coding region of the GFAP gene.⁴ All forms of Alexander's disease are characterized by the presence of Rosenthal fibers, which are GFAP-containing cytoplasmic inclusions found in astrocytes.
Form/Format	Biotin (BIOT) Conjugate
Sequence Length	432
Applicable Applications for anti-GFAP antibody	ELISA
Immunogen	Recombinant human Glial Fibrillary Acid Protein (GFAP)
Characterization	To ensure acceptable performance, each batch of product is tested by immunohistochemistry and Western blotting to conform to characteristics of a standard reference reagent.
WARNING	Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

Preparation and Storage

The purified (UNLB) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0; store at 2-8 degree C.

HRP conjugate is supplied in 1.0 mL of stock solution in 50% glycerol/50% phosphate buffered saline, pH.7.4. No preservative added. Store at 2-8 degree C or long-term at -20 degree C.

The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL PBS/NaN₃. Store at 2-8 degree C.

Reagents are stable for the period shown on the label if stored as directed.

IMAGES



ICC (Immunocytochemistry)

The CCF STTG1 cell line was fixed with 5% acetic acid methanol solution for 30 minutes followed by a 5% BSA/PBS blocking. The cells were permeabilized by 0.1 % Triton x/PBS for 15 minutes and stained with Mouse Anti-Human GFAP-CY3. The slides were mounted with DAPI-Fluormount-G(R)

ADDITIONAL INFORMATION

References

- 1) Lukas, Z. et al. 1989. Expression of vimentin and glial fibrillary acid protein in human developing spinal cord. Histochem. J. 21:693.
- 3) Brenner, M. et al. 2001. Mutations in GFAP, encoding glial fibrillary acid protein, are associated with Alexander's Disease. Nat. Genet. 7:118-120.

NCBI AND UNIPROT INFORMATION

NCBI GI #	251802
NCBI GeneID	2670
UniProt Accession #	P14136; Q53H98; Q5D055; Q6ZQS3; Q7Z5J6; Q7Z5J7; Q96KS4; Q96P18; Q9UFD0; B2RD44; D3DX59
Molecular Weight	49,880 Da
NCBI Official Full Name	glial fibrillary acidic protein
NCBI Official Synonym Full Names	glial fibrillary acidic protein
NCBI Official Symbol	GFAP
NCBI Official Synonym Symbols	FLJ45472; GFAP
NCBI Protein Information	glial fibrillary acidic protein
UniProt Protein Name	Glial fibrillary acidic protein
UniProt Gene Name	GFAP
UniProt Entry Name	GFAP_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/gfap-antibody-clone-sb61b1-elisa/78621>