OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM03085PU-N

GFAP Mouse Monoclonal Antibody [Clone ID: GF-02]

Product data:

Product Type:	Primary Antibodies
Clone Name:	GF-02
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blotting: 1-2 µg/ml. Immunohistochemistry (paraffin and frozen sections). Immunocytochemistry.
Reactivity:	Human, Porcine
Host:	Mouse
Isotype:	IgM
Clonality:	Monoclonal
Immunogen:	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.
Specificity:	The antibody GF-02 exclusively reacts with intact GFAP molecules. GFAP is the principal marker of astroglial cells in the central nervous system; it is specifically expressed in satellite cells in peripheral ganglia and in non myelinating Schwann cells in peripheral nerves. The GFAP protein runs on gels at ~55 kDa protein, usually associated with lower Mw bands which are thought to be proteolytic fragments and alternate transcripts from the single gene.
Formulation:	PBS, pH 7.4 with 15 mM sodium azide as preservative. State: Purified State: Liquid purified IgG fraction (> 95% pure by SDS-PAGE).
Concentration:	lot specific
Purification:	Thiophilic adsorption-affinity chromatography and Precipitation methods.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	glial fibrillary acidic protein
Database Link:	Entrez Gene 2670 Human P14136

View online »

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

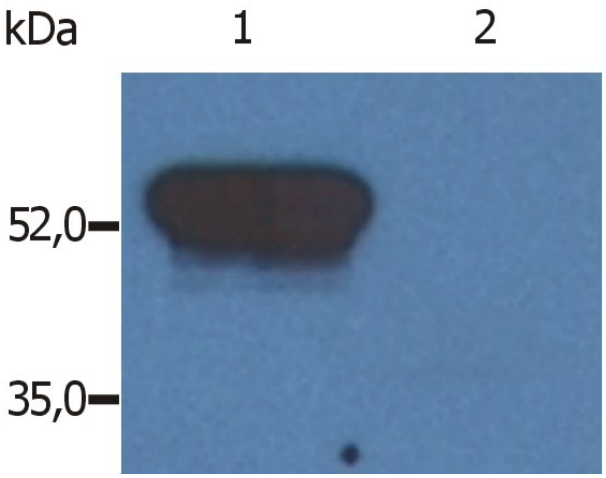
Background:

Glial Fibrillary Acidic Protein (GFAP) was discovered by Bignami et al. (1972) 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. 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 in salivary tumors and has been reported in erythrocytes.
Although its function is not fully understood, GFAP protein is probably involved in controlling the shape and movement of astrocytes. The protein probably also plays a significant role in the interactions of astrocytes with other cells, which are required for the formation and maintenance of the insulating layer (myelin) that covers nerve cells. Additionally, GFAP protein may assist in maintaining the protective barrier that allows only certain substances to pass between blood vessels and the brain (blood-brain barrier).
In adults, GFAP levels increase as a result of the proliferation of astrocytes that occurs in a response to a variety of physical, chemical and etiological insults, including Alzheimer's disease, epilepsy and multiple sclerosis.
Antibodies to GFAP are therefore very useful as markers of astrocytic cells and neural stem cells and for distinguishing of neoplasms of astrocytic origin from other neoplasms in the central nervous system.
Finally, Alexander's disease was recently shown to be caused by point mutations in protein coding region of the GFAP gene (Brenner et al., 2001). All forms of Alexander disease are characterized by the presence of Rosenthal fibers, which are GFAP containing cytoplasmic inclusions found in astrocytes.

Synonyms:

Glial Fibrillary Acidic Protein

Product images:



Western Blotting analysis (reducing conditions) of GFAP in porcine brain lysate. Lane 1: immunostaining with anti-GFAP (GF-02); Lane 2: immunostaining with Isotype mouse IgM control

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US