Datasheet for ABIN94318

anti-GFAP antibody

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Overview

Quantity:	0.1 mg
Target:	GFAP
Reactivity:	Human, Pig, Cat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GFAP antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Immunoprecipitation (IP)

Product Details

Immunogen:	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.
Clone:	GF-01
Isotype:	IgG1
Specificity:	The antibody GF-01 reacts with GFAP, the principal marker of astroglial cells in the central nervous system, which 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.
No Cross-Reactivity:	Rat
Cross-Reactivity (Details):	Human, Feline (Cat), Porcine
Purification:	Purified by protein-A affinity chromatography.

Product Details

Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	GFAP
Alternative Name:	GFAP (GFAP Products)
Background:	Glial fibrillary acidic proteinprovided,GFAP (glial fibrillary acidic protein) 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.,GFAP, ALXDRD
Gene ID:	2670
UniProt:	P14136

Application Details

Application Notes:	Immunohistochemistry (paraffin sections): Recommended dilution: 10 µg/mL, positive tissue:

Application Details

	human brain (cortex, cerebellum). The antibody GF-01 strongly stains astrocytes in human brain tissue sections but it is essentially negative on mouse and rat tissues. Immunocytochemistry: Recommended dilution: 5-10 µg/mL.
Restrictions:	For Research Use only

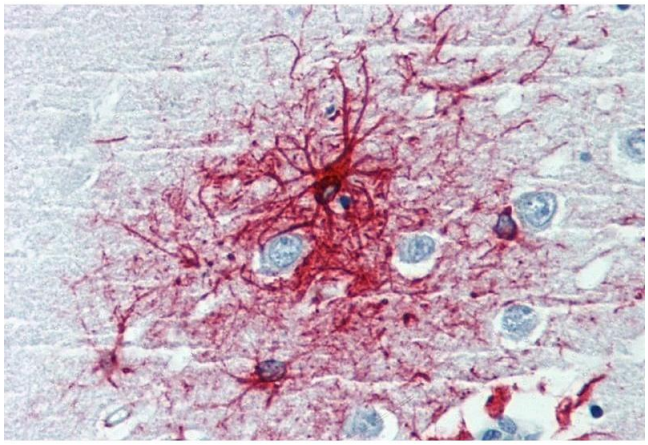
Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

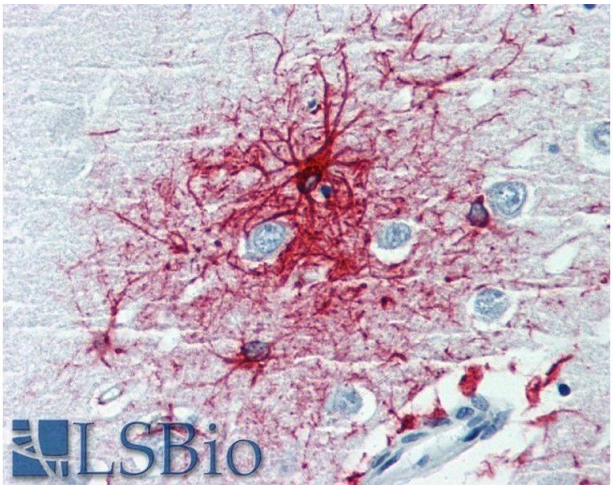
Product cited in:	Lukás, Dráber, Bucek, Dráberová, Viklický, Stasková: "Expression of vimentin and glial fibrillary acidic protein in human developing spinal cord." in: **The Histochemical journal**, Vol. 21, Issue 12 , pp. 693-701, (1990) (PubMed).

Images



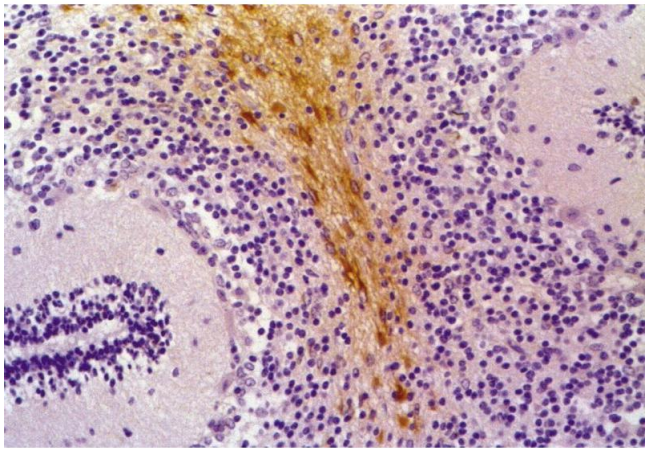
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry staining of human brain cortex (paraffin-embedded sections) with anti-GFAP (clone GF-01).



Immunohistochemistry

Image 2. Immunohistochemistry staining of human brain cortex (paraffin-embedded sections) with anti-GFAP (clone Commercially tested by LifeSpan BioSciences



Immunohistochemistry

Image 3. Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-GFAP (clone GF-01).

Please check the product details page for more images. Overall 4 images are available for ABIN94318.