

Product datasheet

Anti-GFAP antibody [EP672Y] ab33922

Recombinant RabMAb

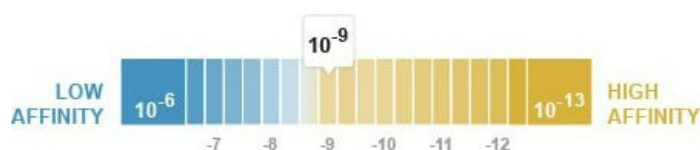
★★★★★ [9 Abreviews](#) [59 References](#) [10 Images](#)

Overview

Product name	Anti-GFAP antibody [EP672Y]
Description	Rabbit monoclonal [EP672Y] to GFAP
Host species	Rabbit
Specificity	Mouse species is recommended based on IHC and ICC results, we do not guarantee WB for mouse.
Tested applications	Suitable for: ICC/IF, WB, IHC-P, Flow Cyt (Intra) Unsuitable for: Flow Cyt or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Dissociation constant (K _D)	K _D = 2.86 x 10 ⁻⁹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide
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	Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP672Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab33922 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

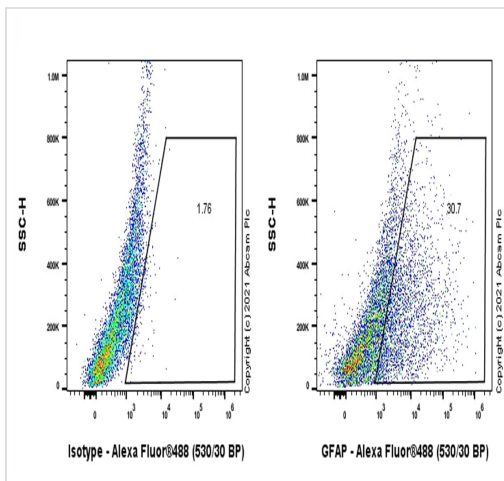
Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use a concentration of 0.2 - 1 µg/ml.
WB	★★★★★ (3)	1/2000. Predicted molecular weight: 50 kDa. Mouse species is recommended based on IHC and ICC results, we do not guarantee WB for mouse.
IHC-P	★★★★☆ (2)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.

Application notes Is unsuitable for Flow Cyt or IP.

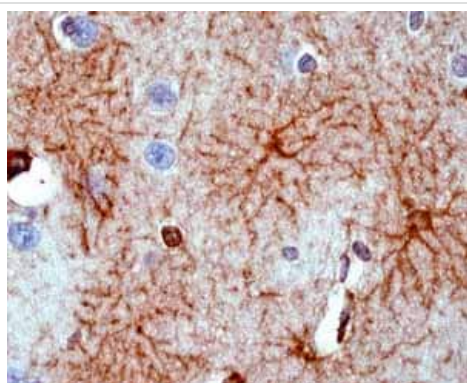
Target

Function	GFAP, a class-III intermediate filament, is a cell-specific marker that, during the development of the central nervous system, distinguishes astrocytes from other glial cells.
Tissue specificity	Expressed in cells lacking fibronectin.
Involvement in disease	Defects in GFAP are a cause of Alexander disease (ALEXD) [MIM:203450]. Alexander disease is a rare disorder of the central nervous system. It is a progressive leukoencephalopathy whose hallmark is the widespread accumulation of Rosenthal fibers which are cytoplasmic inclusions in astrocytes. The most common form affects infants and young children, and is characterized by progressive failure of central myelination, usually leading to death usually within the first decade. Infants with Alexander disease develop a leukoencephalopathy with macrocephaly, seizures, and psychomotor retardation. Patients with juvenile or adult forms typically experience ataxia, bulbar signs and spasticity, and a more slowly progressive course.
Sequence similarities	Belongs to the intermediate filament family.
Post-translational modifications	Phosphorylated by PKN1.
Cellular localization	Cytoplasm. Associated with intermediate filaments.

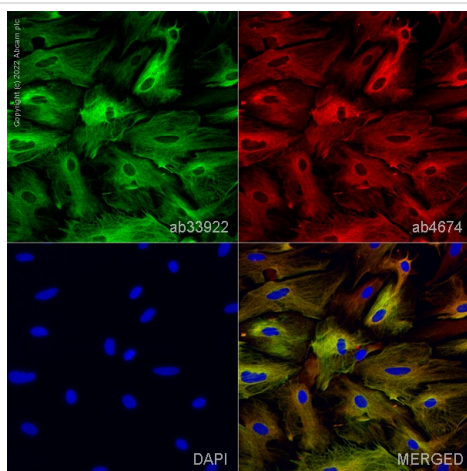
Images



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EP672Y] (ab33922)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] (ab33922)



Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EP672Y] (ab33922)

Flow cytometry analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse primary brain cells cells labelling GFAP with ab33922 at 1/500 dilution (0.1ug)/ Right compared with a Rabbit monoclonal IgG (**ab172730**) / Left isotype control . A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.

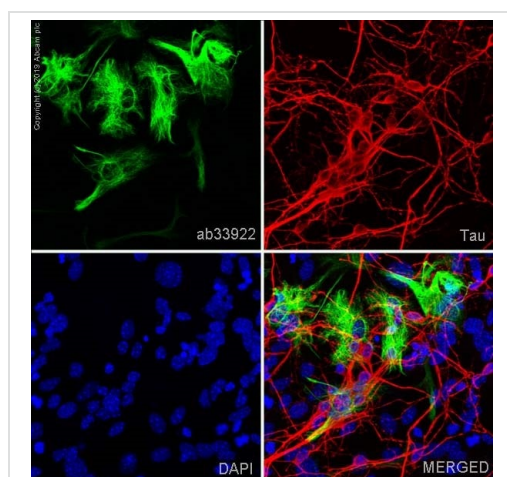
ab33922 showing positive staining in Normal brain tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunofluorescence staining of GFAP using ab33922 in primary rat hippocampal mixed glia, (prepared from P2 rat hippocampal brain area, obtained from Transnetyx Tissue by BrainBits, LLC, cat.no. SDPHP4m), DIV4. The cells were fixed with 100% MeOH (5 min), permeabilized with 0.1% Triton-X-100 (in PBS) for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab33922 at 0.2 µg/ml and **ab4674**, Anti-GFAP antibody, at 1/1000 dilution. Cells were then incubated with **ab150081**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150176**, Goat Anti-Chicken IgY H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Images were acquired with the Perkin Elmer Operetta HCA and a maximum intensity projection of confocal sections is shown. The

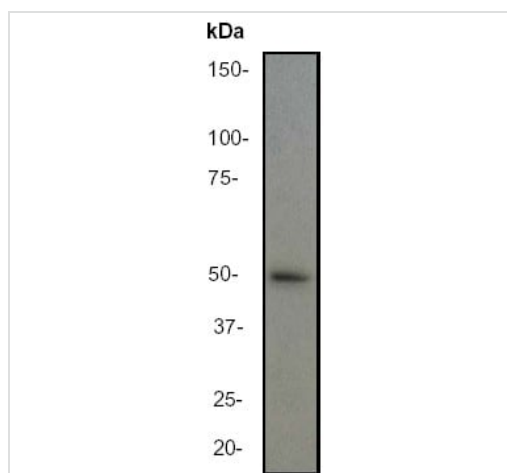
antibody ab33922 gave comparable results using 4% formaldehyde fixation (10 min).



Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EP672Y] (ab33922)

Immunocytochemistry analysis of Embryonic mouse primary neural cells labeling GFAP with purified ab33922 at 1:100 dilution (10 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. Cells were counterstained with Tau Mouse mAb 1:100 (5 µg/ml). **ab150120** Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) was used as the secondary antibody for the counter stain at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain.

Confocal image showing positive staining in glial cells.

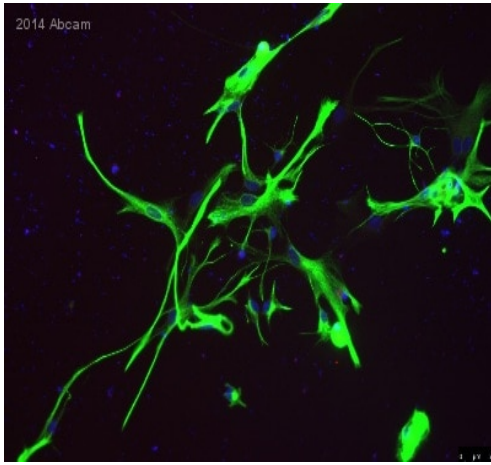


Western blot - Anti-GFAP antibody [EP672Y] (ab33922)

Anti-GFAP antibody [EP672Y] (ab33922) at 1/2000 dilution + Rat brain lysate

Predicted band size: 50 kDa

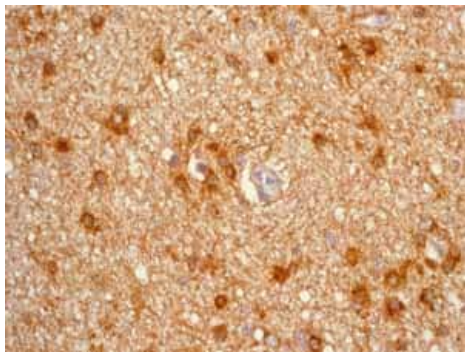
Observed band size: 50 kDa



Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EP672Y] (ab33922)

Image Courtesy of Ruma Raha-Chowdhury

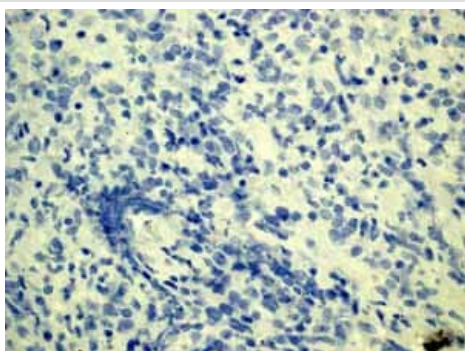
ICC image of ab33922 stained Rat primary mixed astrocytes culture. The cells were 100% Paraformaldehyde fixed and then incubated in 10% Serum / 0.1M PBS with 10% Donkey serum for 4h. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] (ab33922)

ab33922 showing positive staining in Astrocytoma tissue.

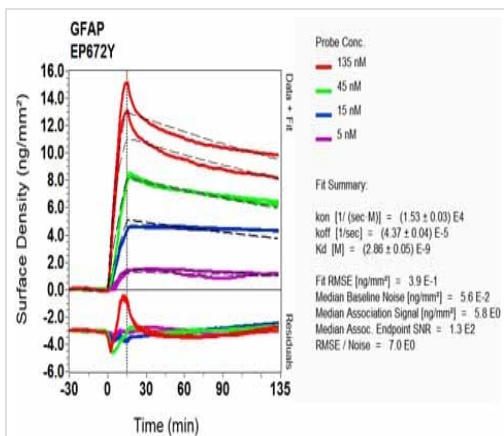
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] (ab33922)

ab33922 showing negative staining in Meningioma tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



SPR Scanning - Anti-GFAP antibody [EP672Y]
(ab33922)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-GFAP antibody [EP672Y] (ab33922)

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