abcam

ab33922

Anti-GFAP antibody [EP672Y] - Astrocyte Marker

Anti-GFAP antibody [EP672Y] (ab33922) is a rabbit monoclonal antibody detecting GFAP in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 60 publications
- Trusted since 2006

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP672Y
Purification technique	Affinity purification Protein A
Dissociation constant	2.86 x 10^{-9} M
Concentration	0.222 - 0.235 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Rat
Dilution info	0.2-1 µg/mL
Notes	-

Species	Mouse
Dilution info	0.2-1 µg/mL
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-

Notes	-

Flow Cyt

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Rat
Dilution info	1/2000
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Expected

Species	Rat
Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

Target data

See full target information GFAP

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.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-GFAP antibody [EP672Y] (ab33922) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of GFAP?
Anti-GFAP [EP672Y] (ab33922) specifically detects a band for GFAP (UniProt: P14136) at a molecular weight of 50kDa.

Trusted by the scientific community
Anti-GFAP [EP672Y] (ab33922) was first used in a scientific publication in 2006 and has been cited over 60 times in peer-reviewed journals.

Reviewed by scientists
Anti-GFAP [EP672Y] (ab33922) has over 5 independent reviews from customers.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

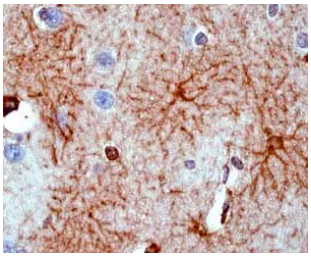
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

9 product images

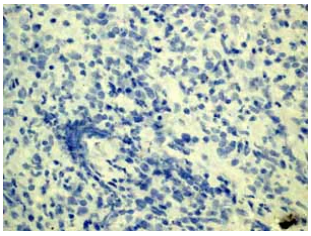


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GFAP 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.

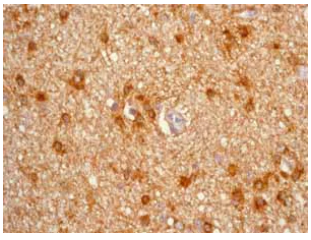


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GFAP antibody

ab33922 showing negative staining in Meningioma tissue.

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

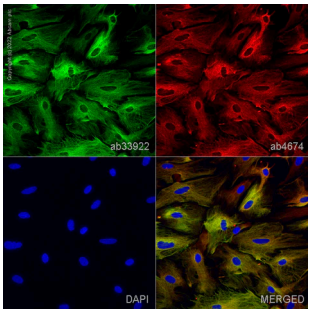


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GFAP antibody

ab33922 showing positive staining in Astrocytoma tissue.

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

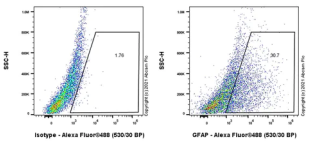


Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922)

GFAP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GFAP antibody

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%

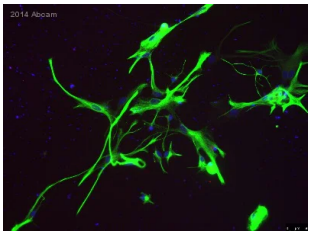
Triton-X-100 (in PBS) for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab33922 at 0.2 µg/ml and ab4674, Anti-GFAP antibody, at 1/1000 dilution. Cells were then incubated with ab150081, Goat Anti-Rabbit 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).



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

GFAP Flow Cytometry (Intracellular) staining using rabbit Anti-GFAP antibody

Flow cytometric 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.

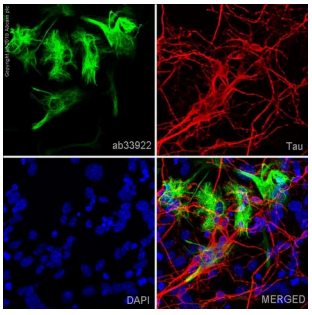


This image is courtesy of a customer review submitted by Ruma Raha-Chowdhury.

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

GFAP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GFAP antibody

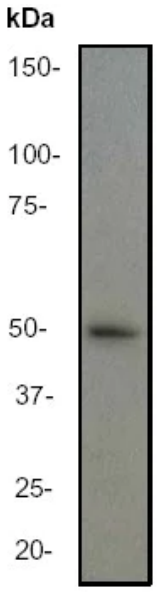
ICC image of ab33922 stained Rat primary mixed astrocytes culture. The cells were 100% Paraformaldehyde fixed and then incubated in 10% Serum / 0.1M PBS with 10% Donkey serum for 4h. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution.



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

GFAP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GFAP antibody

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] - Astrocyte Marker (ab33922)

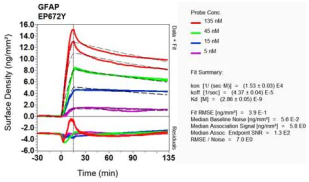
GFAP Western blot staining of Rat brain lysate using rabbit Anti-GFAP antibody

All lanes:
Western blot - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922) at 1/2000 dilution

All lanes:
Rat brain lysate

Predicted band size: 49 kDa

Observed band size: 50 kDa



OI-RD Scanning - Anti-GFAP antibody [EP672Y] - Astrocyte Marker (ab33922)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.