abcam

ab279289

Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric)

Mouse recombinant monoclonal GFAP EPR1034Y antibody. Suitable for WB, ICC, IP, IHC-P, IHC-Fr and Flow Cytometry. Reacts with human, mouse and rat samples.

This antibody is the chimeric Mouse IgG1 version of clone EPR1034Y, available in rabbit as ab68428 with over 150 publications. Same clone, same staining pattern, different species antibody backbone.
Learn more about chimeric antibodies

Recombinant | 20ul selling size

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR1034Y
Purification technique	Affinity purification Protein A
Concentration	1.063 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1 µg/mL
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	-

ICC

Tested

Species	Rat
Dilution info	1-5 mg/mL
Notes	-

Expected

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

IP

Tested

Species	Rat
Dilution info	1/30
Notes	-

Expected

Species	Human, Mouse

Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/500
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Expected

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

Flow Cyt (Intra)

Tested

Species	Rat
Dilution info	1/1000
Notes	-

Expected

Species	Human, Mouse
Dilution info	Use at an assay dependent concentration.
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	Blue Ice
Appropriate short-term storage duration	1-2 weeks
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

Find all reagents to label astrocytes in our "Astrocytes markers guide".

This mouse monoclonal chimeric antibody has been engineered from a RabMAb parent antibody (ab68428). By necessity, some rabbit sequence is retained as part of the variable domain. When multiplexing with other rabbit-

derived antibodies, using cross absorbed Fc-reactive secondary antibodies are recommended.

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

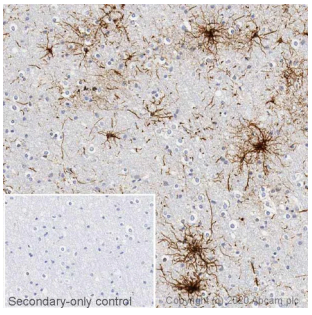
We do not recommend this combination. It is not covered by our product promise.

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:
Terms & Conditions.

6 product images



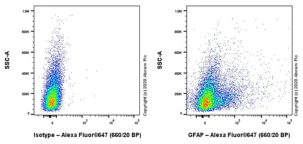
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

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

IHC image of GFAP staining in a section of formalin-fixed paraffin-embedded normal human cerebral cortex performed on a Leica BOND™ system using the standard protocol F.
The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab279289, 1µg/ml, for 15 mins at room temperature. A rabbit anti-mouse IgG1, ab125913, was added for 8 mins at room temperature and detected using an HRP conjugated goat anti-rabbit compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

The inset secondary-only control image is taken from an identical assay without primary antibody.

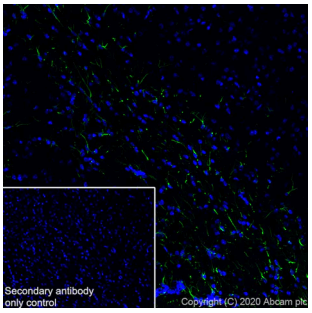
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

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

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized rat primary neural/glia cells labelling GFAP with ab279289 at 1/1000 dilution (0.1µg)/ Right compared with a Mouse monoclonal IgG isotype control/ Left.
Goat Anti-Mouse IgG (Alexa Fluor® 647, ab150119) at 1/2000 dilution was used as the secondary antibody.

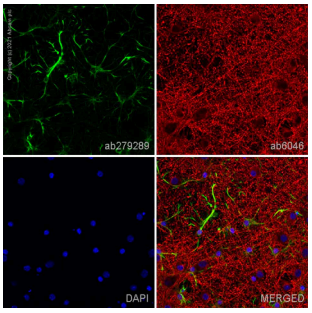


Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

GFAP Immunohistochemistry (Frozen sections) staining using mouse Anti-GFAP antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse cerebrum tissue labeling GFAP with ab279289 at /500 (1.968 µg/ml) dilution followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse cerebrum is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488)at 1000 dilution.

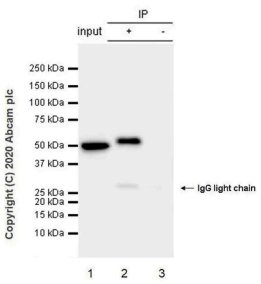
Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunocytochemistry - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

GFAP Immunocytochemistry staining using mouse Anti-GFAP antibody

ab279289 staining GFAP in primary hippocampal rat neurons/glia (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes 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 ab279289 at 1µg/ml and ab6046, Rabbit polyclonal to beta Tubulin. Cells were then incubated with ab150117, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150084, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).
The antibody ab279289 gave comparable results using MeOH fixation (100%, 5 min).



Immunoprecipitation - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

GFAP was immunoprecipitated from 0.35 mg rat brain tissue lysate 10 µg with ab279289 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab279289 at 1/1000 dilution. mouse IgG for IP (HRP) (ab131368) was used at 1/5000 dilution.
Lane 1: Rat brain tissue lysate 10µg.

Lane 2: ab279289 IP in rat brain tissue lysate.

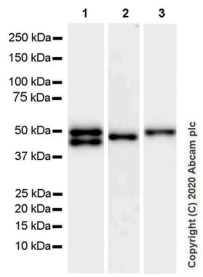
Lane 3: Mouse monoclonal IgG1 (ab18443) instead of ab279289 in rat brain tissue lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 23 seconds.

All lanes:
Immunoprecipitation - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

Predicted band size: 49 kDa



Western blot - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289)

GFAP Western blot staining using mouse Anti-GFAP antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The molecular weight observed is consistent with the literature (PMID: 824020, 2294, 6340792).

Exposure times: Lane 1: 3.25 seconds; Lane 2: 48 seconds; Lane 3: 10 seconds.

All lanes:
Western blot - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG1 (Chimeric) (ab279289) at 1/1000 dilution

Lane 1:
Human brain tissue lysate at 20 µg

Lane 2:
Mouse brain tissue lysate at 20 µg

Lane 3:
Rat brain tissue lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/5000 dilution

Predicted band size: 49 kDa

Observed band size: 40-50 kDa

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