abcam

ab279302

Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free

Recombinant

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR1034Y
Purification technique	Affinity purification Protein A
Concentration	1.043 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

ICC

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Expected

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

IP

Tested

Species	Rat
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-Fr

Tested

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

Species	Rat
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Rat
Dilution info	-
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 conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab279302 is the carrier free version of ab279290.
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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

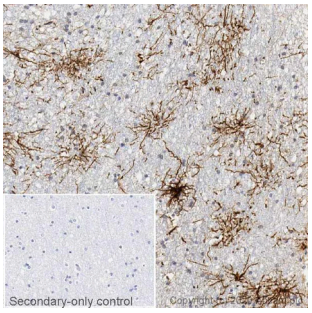
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



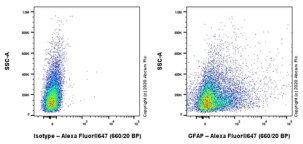
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

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

This data was produced using ab279290, the same clone in a different formulation.
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 ab279290, 1µg/ml, for 15 mins at room temperature. A rabbit anti-mouse IgG2a, 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.

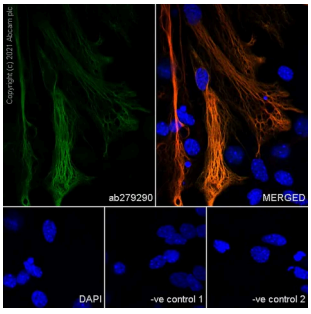
The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

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

This data was produced using ab279290, the same clone in a different formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized rat primary neural/glia cells labelling GFAP with ab279290 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.



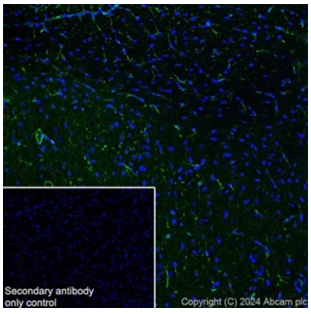
Immunocytochemistry - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

GFAP Immunocytochemistry staining using mouse Anti-GFAP antibody

This data was developed using ab279290, the same antibody clone in a different buffer formulation.
Immunocytochemical analysis of 4% PFA-fixed, 0.1% Triton X-100 permeabilized mouse neural/glia tissue labeling GFAP with ab279290 at 1/50 (16 µg/ml) dilution followed by ab98736 Goat Anti-Mouse IgG (DyLight® 488) pre-adsorbed at 1/1000 dilution (Green). Positive staining on mouse primary astrocytes is observed. The nuclear counterstain was DAPI (Blue).

Counterstain: ab207165 anti-GFAP rabbit mAb at 1/1000 dilution with secondary antibody ab150088 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) pre-adsorbed at 1/1000 dilution.

Negative controls: ab279290 with secondary ab150080 at 1/500 dilution; and ab207165 at 1/1000 dilution with secondary ab98376 at 1/1000 dilution



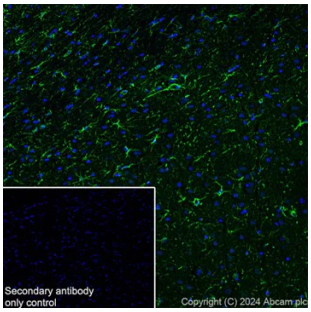
Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

GFAP Immunohistochemistry (Frozen sections) staining of Fresh frozen mouse cerebrum tissue using mouse Anti-GFAP antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized fresh frozen mouse cerebrum tissue labeling GFAP with ab279290 at 1/200 (10 µg/ml) dilution followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 (2µg/mL) dilution. 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 1/1000 dilution.

This data was developed using ab279290, the same antibody clone in a different buffer formulation.



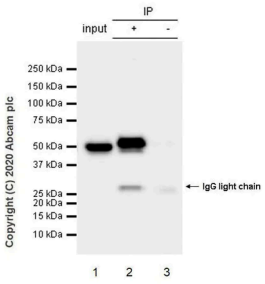
Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

GFAP Immunohistochemistry (Frozen sections) staining of Fresh frozen rat cerebrum tissue using mouse Anti-GFAP antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized fresh frozen rat cerebrum tissue labeling GFAP with ab279290 at 1/200 (10 µg/ml) dilution followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 (2µg/mL) dilution. Positive staining on rat 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 1/1000 dilution.

This data was developed using ab279290, the same antibody clone in a different buffer formulation.



Immunoprecipitation - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

This data was produced using ab279290, the same clone in a different formulation.
GFAP was immunoprecipitated from 0.35 mg rat brain tissue lysate 10 µg with ab279290 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab279290 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: ab279290 IP in rat brain tissue lysate.

Lane 3: Mouse monoclonal IgG2a (ab18413) instead of ab279290 in rat brain tissue lysate.

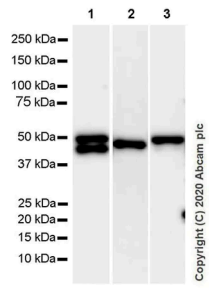
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 23 seconds.

All lanes:
Immunoprecipitation - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Mouse IgG2a (Chimeric) (ab279290)

Predicted band size: 49 kDa

Observed band size: 50 kDa



Western blot - Anti-GFAP antibody [EPR1034Y] - Mouse IgG2a (Chimeric) - BSA and Azide free (ab279302)

GFAP Western blot staining using mouse Anti-GFAP antibody

This data was produced using ab279290, the same clone in a different formulation.
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 IgG2a (Chimeric) (ab279290) 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'.