abcam

ab279291

Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric)

Anti-GFAP antibody [EPR1034Y] - Rat IgG2a (Chimeric) (ab279291) is a rat monoclonal antibody detecting GFAP in **Western Blot, Flow Cytometry (Intra), IHC-P, IHC-Fr, mIHC**. Suitable for **Human, Mouse, Rat**.

- Multiplex IHC validated on the Leica BOND® MAX using Opal reagents
- Biophysical QC for unrivalled batch-batch consistency

This antibody is the chimeric Rat 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	IgG2a
Host species	Rat
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	0.863 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	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	-

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	1/200
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

Species	Rat
Dilution info	1/200
Notes	-

Expected

Species	Human
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

What is this antibody validated in?
Anti-GFAP antibody [EPR1034Y] - Rat IgG2a (Chimeric) (ab279291) is a rat recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr), Multiplex IHC (mIHC) in Human, Mouse, Rat samples.

Other related products
We have a range of other formats of antibody clone [EPR1034Y] also available for your convenience: ab68428, Alexa Fluor® 488 - ab194324, Alexa Fluor® 647 - ab194325, Alexa Fluor® 594 - ab201732, Alexa Fluor® 555 - ab201735, Alexa Fluor® 568 - ab201736, Alexa Fluor® 405 - ab206586, Carrier free - ab218309, ab279289, ab279290, ab279291, Carrier free - ab279301, Carrier free - ab279302, Carrier free - ab279303, PE - ab303005, APC - ab303006, HRP - ab303007, Alkaline Phosphatase - ab308965, Alexa Fluor® 647 - ab313596, Biotin - ab314264, Alexa Fluor® 488 - ab317669, Alexa Fluor® 647 - ab317720, Alexa Fluor® 647 - ab317721, Alexa Fluor® 488 - ab317762, Alexa Fluor®

488 - ab319022, ab323239, Carrier free - ab323248

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

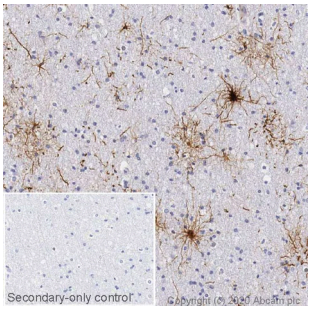
We do not recommend this combination. It is not covered by our product promise.

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:
Terms & Conditions.

6 product images

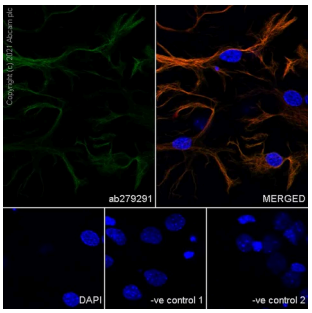


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rat 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 ab279291, 1µg/ml, for 15 mins at room temperature. A rabbit anti-rat IgG2a, ab102248, 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.

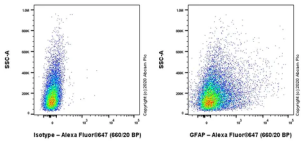


Immunocytochemistry - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

GFAP Immunocytochemistry staining using rat Anti-GFAP antibody

Immunocytochemical analysis of 4% PFA-fixed, 0.1% Triton X-100 permeabilized mouse primary neural/glia tissue labeling GFAP with ab279291 at 1/50 (17 µg/ml) dilution followed by ab150161 Goat Anti-Rat IgG (Alexa Fluor® 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.

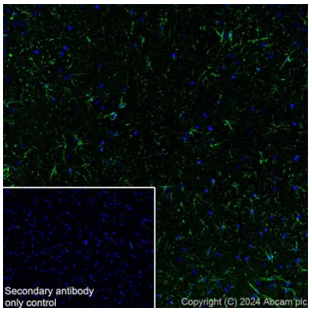
Negative controls: ab279291 at 1/50 dilution with secondary ab150080 at 1/500 dilution; and ab207165 at 1/1000 dilution with secondary ab150161 at 1/1000 dilution



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

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

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized rat primary neural/glia cells labelling GFAP with ab279291 at 1/1000 dilution (0.1µg)/ Right compared with a Rat monoclonal IgG isotype control/ Left.
Goat F(ab)2 Anti-Rat IgG Fc (Alexa Fluor® 647, ab150163) at 1/2000 dilution was used as the secondary antibody.



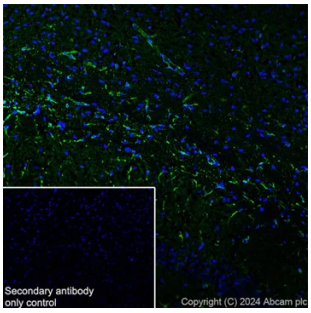
Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

GFAP Immunohistochemistry (Frozen sections) staining of Rat cerebrum (fresh frozen) using rat Anti-GFAP antibody

Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized fresh frozen rat cerebrum tissue labeling GFAP with ab279291 at a 1/200 dilution, followed by Goat Anti-Rat IgG H&L (Alexa Fluor® 488) (ab150157) secondary antibody at a 1/1000 dilution. The nuclear counterstain was DAPI (blue).

Positive staining on rat cerebrum.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rat IgG H&L (Alexa Fluor® 488) ab150157 at a 1/1000 dilution.



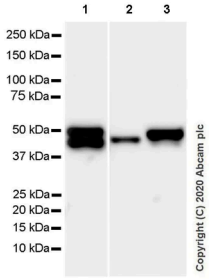
Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

GFAP Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rat Anti-GFAP antibody

Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized fresh frozen mouse cerebrum tissue labeling GFAP with ab279291 at a 1/200 dilution, followed by Goat Anti-Rat IgG H&L (Alexa Fluor® 488) (ab150157) secondary antibody at a 1/1000 dilution. The nuclear counterstain was DAPI (blue).

Positive staining on mouse cerebrum.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rat IgG H&L (Alexa Fluor® 488) ab150157 at a 1/1000 dilution.



Western blot - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291)

GFAP Western blot staining using rat Anti-GFAP antibody

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

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

All lanes:
Western blot - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Rat IgG2a (Chimeric) (ab279291) 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:
Western blot - Goat Anti-Rat IgG H&L (HRP) (ab205720) at 1/5000 dilution

Predicted band size: 49 kDa

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