abcam

ab302645

Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free

Recombinant

Key facts

Isotype	IgG
Host species	Goat
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	Ion exchange chromatography
Concentration	1.042 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

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

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

Expected

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

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Rat, Mouse
Dilution info	-
Notes	-

Expected

Species	Human
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
Storage information	Do Not Freeze

Notes

ab302645 is the carrier-free version of ab302644.
This goat 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.

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.

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.

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.

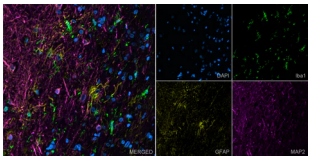
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebral cortex using goat Anti-GFAP antibody

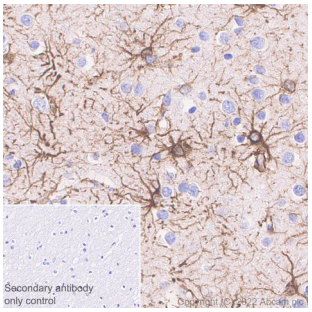
Composite multiplex immunofluorescence staining of Iba1, GFAP and MAP2 staining in a section of formalin-fixed paraffin-embedded human cerebral cortex*.

Performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with Sodium citrate (Ph6.0) using retrieval settings of 100°C for 20 minutes. The section was then incubated at room temperature for 1 hour with ab300156 at 1µg/ml dilution (shown in green), ab183830 at 1µg/ml (shown in magenta), and ab302644 at 1µg/ml (shown in yellow). Then incubated for 1 hour with ab150161 Goat F(ab')2 Anti-Rat IgG Fc (Alexa Fluor® 488) preadsorbed 1/1000, ab150083 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 647) preadsorbed 1/1000, and ab150134 Donkey Anti-Goat IgG H&L (Alexa Fluor® 555) preadsorbed 1/1000. Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Dako Fluorescence Mounting Medium ®.

Image was taken with the EVOS™ S1000 Spatial Imaging System (ThermoFisher Scientific) with spectral unmixing and minor subsequent contrast adjustment.

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

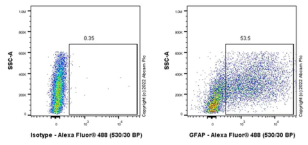
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum using goat Anti-GFAP antibody

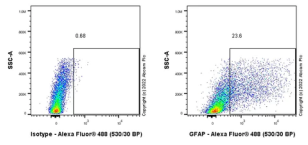
This data was developed using ab302644, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling GFAP with ab302644 at 1/1000 (0.998 ug/ml) followed by a Donkey Anti-Goat IgG H&L (HRP) (ab205723) at 1:2000 dilution. Positive staining on human cerebrum. The section was incubated with ab302644 for 30 mins at room temperature, the 2nd antibody Donkey Anti-Goat IgG (HRP) ab205723 was used.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is Donkey Anti-Goat IgG H&L (HRP) (ab205723) at 1:2000 dilution.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Flow Cytometry (Intracellular) staining of Rat primary neural/glia cells using goat Anti-GFAP antibody

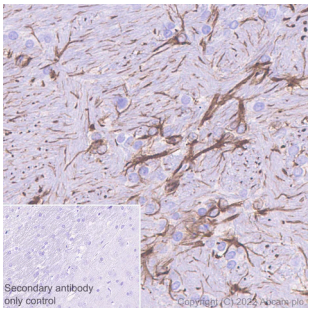
This data was developed using ab302644, the same antibody clone in a different buffer formulation.Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Rat primary neural/glia cell cells labelling GFAP with ab302644 at 1/1000 dilution (0.1ug)/ Right (Red) compared with a Goat IgG / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Donkey anti-Goat IgG (Alexa Fluor® 488, ab150133) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Flow Cytometry (Intracellular) staining of Mouse primary neural/glia cell cells using goat Anti-GFAP antibody

This data was developed using ab302644, the same antibody clone in a different buffer formulation.Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse primary neural/glia cell cells labelling GFAP with ab302644 at 1/1000 dilution (0.1ug)/ Right (Red) compared with a Goat IgG / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Donkey anti-Goat IgG (Alexa Fluor® 488, ab150133) at 1/2000 dilution was used as the secondary antibody.

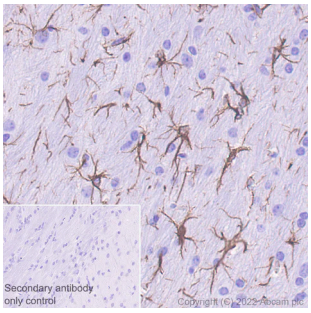


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using goat Anti-GFAP antibody

This data was developed using ab302644, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling GFAP with ab302644 at 1/1000 (0.998 ug/ml) followed by a Donkey Anti-Goat IgG H&L (HRP)

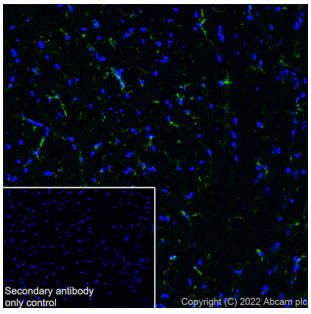
(ab205723) at 1:2000 dilution. Positive staining on rat cerebrum. The section was incubated with ab302644 for 30 mins at room temperature, the 2nd antibody Donkey Anti-Goat IgG (HRP) ab205723 was used.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is Donkey Anti-Goat IgG H&L (HRP) (ab205723) at 1:2000 dilution.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using goat Anti-GFAP antibody

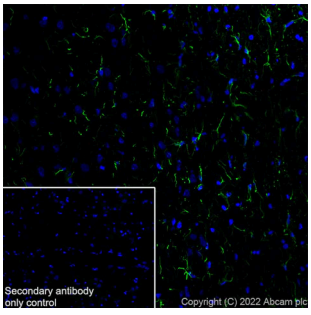
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Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

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

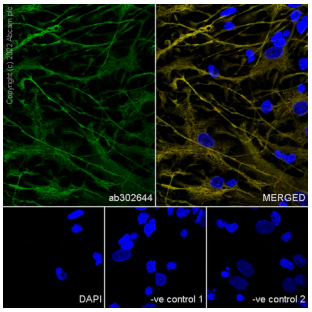
This data was developed using ab302644, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh) tissue labeling GFAP with ab302644 at 1/100 (9.98 ug/ml) dilution followed by ab150129 Donkey Anti-Goat IgG H&L (Alexa Fluor® 488) at 1/1000 2 ug/mL dilution (Green). Positive staining on mouse cerebrum is observed. The nuclear counterstain was DAPI (Blue). Secondary antibody control: Secondary antibody is ab150129 Donkey Anti-Goat IgG H&L (Alexa Fluor® 488)at 1/1000 2 ug/mL dilution.



Immunohistochemistry (Frozen sections) - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

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

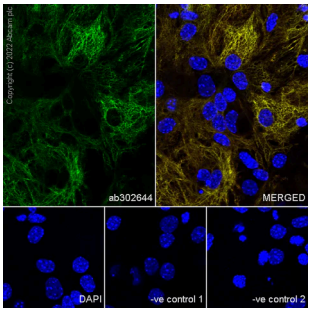
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Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunocytochemistry/ Immunofluorescence staining of rat primary neural/glia cell using goat Anti-GFAP antibody

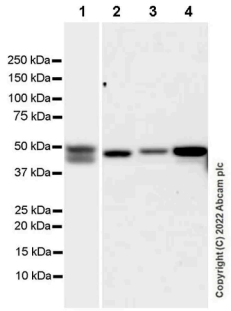
This data was developed using ab302644, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat primary neural/glia cells labeling GFAP with ab302644 at 1/250 dilution (3.992 µg/ml), followed by ab150129 Donkey Anti-Goat IgG H&L (Alexa Fluor® 488) antibody at 1/500 dilution (4 µg/mL) (Green). Confocal image showing cytoplasmic staining in rat primary astrocytes. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab10062 Anti-GFAP mouse monoclonal antibody was used to counterstain tubulin at 1/50 dilution (10 µg/ml), followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (Red). The Nuclear counterstain was DAPI (Blue). The negative controls are as follows: -ve control 1: ab302644 was used as primary antibody at 1/250 dilution, followed by ab150120 at 1:1000 dilution (2 µg/ml) 1/1000 dilution (2 µg/mL). -ve control 2: ab10062 at 1:50 dilution (10 µg/ml) was used as a primary antibody, followed by ab150129 at 1:500 dilution (4 µg/ml).



Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Immunocytochemistry/ Immunofluorescence staining of mouse primary neural/glia cell using goat Anti-GFAP antibody

This data was developed using ab302644, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural/glia cells labeling GFAP with ab302644 at 1/250 dilution (3.992 µg/ml), followed by ab150129 Donkey Anti-Goat IgG H&L (Alexa Fluor® 488) antibody at 1/500 dilution (4 µg/mL) (Green). Confocal image showing cytoplasmic staining in mouse primary astrocytes. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab10062 Anti-GFAP mouse monoclonal antibody was used to counterstain tubulin at 1/50 dilution (10 µg/ml), followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (Red). The Nuclear counterstain was DAPI (Blue). The negative controls are as follows: -ve control 1: ab302644 was used as primary antibody at 1/250 dilution, followed by ab150120 at 1:1000 dilution (2 µg/ml) 1/1000 dilution (2 µg/mL). -ve control 2: ab10062 at 1:50 dilution (10 µg/ml) was used as a primary antibody, followed by ab150129 at 1:500 dilution (4 µg/ml).



Western blot - Anti-GFAP antibody [EPR1034Y] - Goat IgG (Chimeric) - BSA and Azide free (ab302645)

GFAP Western blot staining using goat Anti-GFAP antibody

This data was developed using ab302644, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST Exposure time: Lane 1: 3.25 seconds Lane 2-3: 70 seconds
All lanes:
Western blot - Anti-GFAP antibody [EPR1034Y] - Astrocyte marker - Goat IgG (Chimeric) (ab302644) at 1/1000 dilution

Lane 1:
Human cerebellum tissue lysate at 20 µg

Lane 2:
Mouse cerebellum tissue lysate at 20 µg

Lane 3:
Rat cerebellum tissue lysate at 20 µg

Secondary

All lanes:
Rabbit anti-Goat IgG (H+L), Peroxidase conjugated at 1/5000 dilution

Observed band size: 50 kDa

Exposure time: 70s

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