abcam

Product datasheet

Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] ab302977

Recombinant RabMAb

1 Abreviews 6 Images

Overview

Product name	Alexa Fluor® 488 Anti-GFAP antibody [EP672Y]
Description	Alexa Fluor® 488 Rabbit monoclonal [EP672Y] to GFAP
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	**Suitable for:** IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human cerebrum, astrocytoma; mouse cerebrum; rat cerebrum FFPE tissue sections. ICC/IF: Rat primary neural/glia cells.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or

outlicensing@thermofisher.com.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 68% PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP672Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab302977 in the following tested applications.

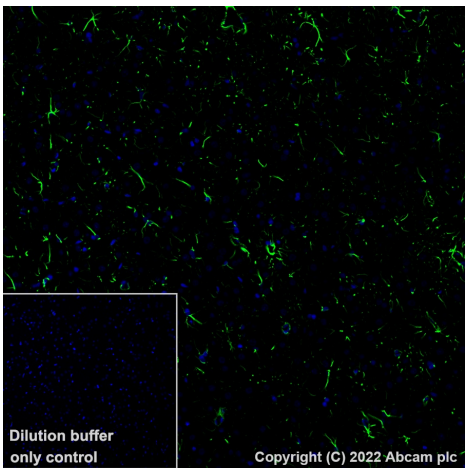
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/50.

Target

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.
Tissue specificity	Expressed in cells lacking fibronectin.
Involvement in disease	Defects in GFAP are a cause of Alexander disease (ALEXD) [MIM:203450]. Alexander disease is a rare disorder of the central nervous system. It is a progressive leukoencephalopathy whose hallmark is the widespread accumulation of Rosenthal fibers which are cytoplasmic inclusions in astrocytes. The most common form affects infants and young children, and is characterized by progressive failure of central myelination, usually leading to death usually within the first decade. Infants with Alexander disease develop a leukoencephalopathy with macrocephaly, seizures, and psychomotor retardation. Patients with juvenile or adult forms typically experience ataxia, bulbar signs and spasticity, and a more slowly progressive course.
Sequence similarities	Belongs to the intermediate filament family.
Post-translational modifications	Phosphorylated by PKN1.
Cellular localization	Cytoplasm. Associated with intermediate filaments.

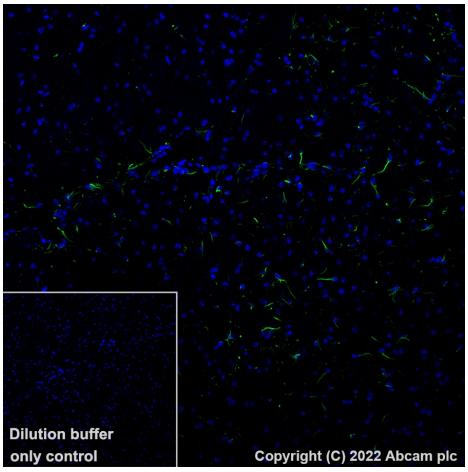
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] (ab302977)

Immunohistochemical analysis of paraffin-embedded rat cerebrum tissue labeling GFAP with ab302977 at 1/50 dilution (10.0 µg/mL). Positive staining is observed on astrocytes of rat cerebrum. The section was incubated with ab302977 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

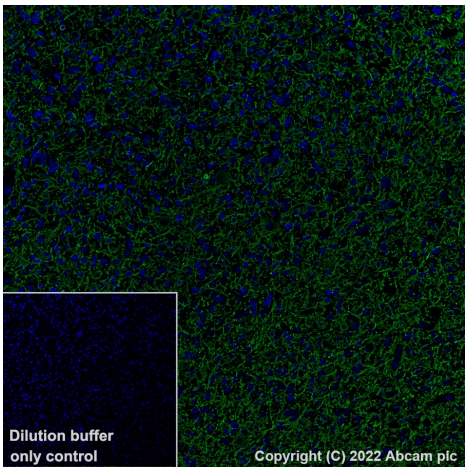
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] (ab302977)

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling GFAP with ab302977 at 1/50 dilution (10.0 µg/mL). Positive staining is observed on astrocytes of mouse cerebrum. The section was incubated with ab302977 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

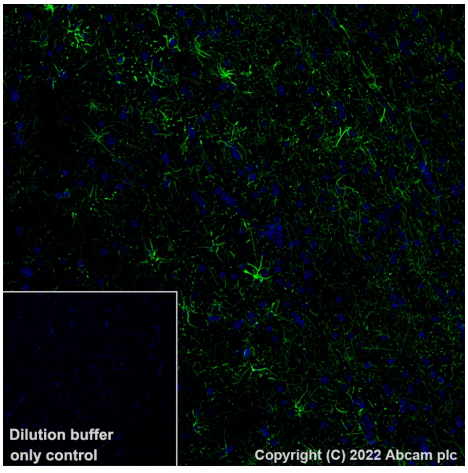
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] (ab302977)

Immunohistochemical analysis of paraffin-embedded human astrocytoma tissue labeling GFAP with ab302977 at 1/100 dilution (5.0 µg/mL). Positive staining is observed on human astrocytoma. The section was incubated with ab302977 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

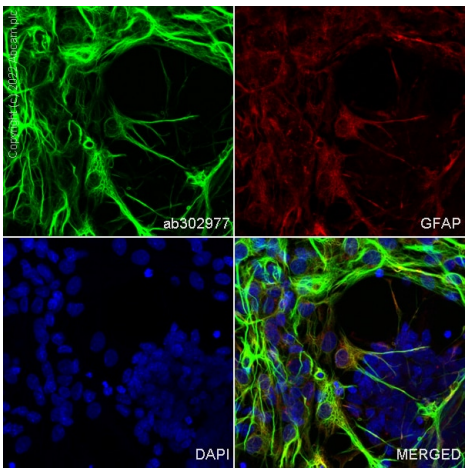
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] (ab302977)

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling GFAP with ab302977 at 1/100 dilution (5.0 µg/mL). Positive staining is observed on astrocytes of human cerebrum. The section was incubated with ab302977 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins was used.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-GFAP antibody [EP672Y] (ab302977)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized rat primary neural/glia cells labeling GFAP with ab302977 at 1/50 dilution (10 µg/ml) (Green). Confocal image showing positive staining in rat primary glia cell. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Anti-Glial Fibrillary Acidic Protein (GFAP) mouse monoclonal antibody was used as counterstain at 1/100 (1ug/ml) dilution (Red). The nuclear counterstain was DAPI (Blue).

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