abcam

Product datasheet

Anti-GFAP antibody ab53554

★★★★★ 21 Abreviews   90 References   7 Images

Overview

Product name	Anti-GFAP antibody
Description	Goat polyclonal to GFAP
Host species	Goat
Tested applications	**Suitable for:** IHC-FrFl, WB, Sandwich ELISA, IHC-P, IHC-Fr, IHC-FoFr, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human, Zebrafish
	Predicted to work with: Cow, Dog ⚠
Immunogen	Synthetic peptide corresponding to Human GFAP aa 417-430 (C terminal) (Cysteine residue). Sequence:
	DGEVIKESKQEHKD
	🖭 Run BLAST with 🖭 Run BLAST with
Positive control	WB: Mouse, rat and human brain tissue lysate. IHC-P: Human cerebellum tissue; Human cortex tissue. IHC-fr: Mouse brain tissue. ICC/IF: Mongolian gerbil brain.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 0.5% BSA, 5mg/ml Tris, pH 7.3
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab53554** in the following tested applications.
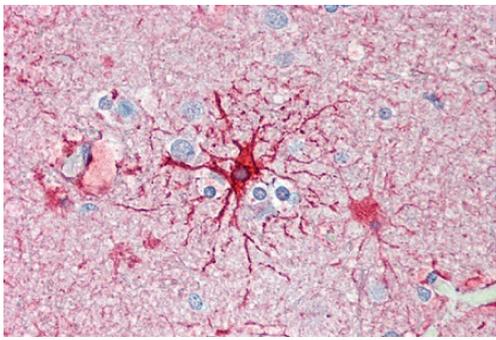
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application	Abreviews	Notes
IHC-FrFl	★★★★★	1/500 - 1/2000.
WB	★★★★☆	Use a concentration of 0.001 - 0.3 µg/ml. Detects a band of approximately 48 kDa (predicted molecular weight: 50 kDa).
Sandwich ELISA		Use a concentration of 5 - 10 µg/ml.
IHC-P	★★★★★	Use a concentration of 2 - 4 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IHC-Fr	★★★★☆	Use at an assay dependent concentration.
IHC-FoFr	★★★★★	Use at an assay dependent concentration.
ICC/IF	★★★★★	Use at an assay dependent concentration. PubMed: 21943601

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

Immunohistochemical analysis of paraffin embedded Human cortex staining GFAP using ab53554 at 5µg/ml. Steamed antigen retrieval with citrate buffer pH 6, AP staining.
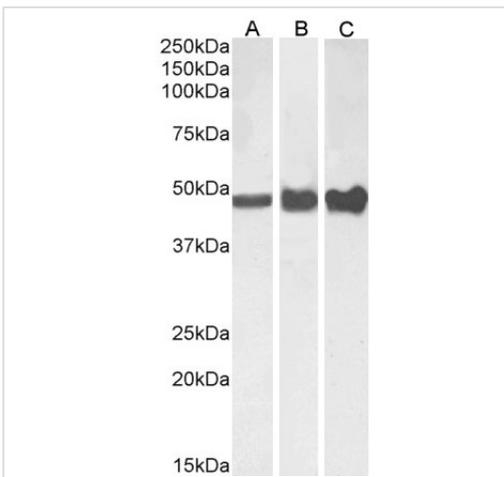
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody (ab53554)

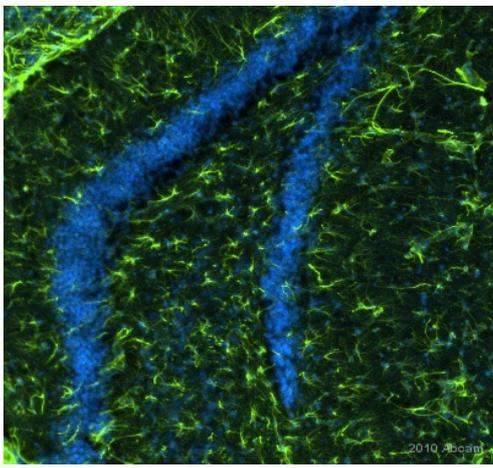**All lanes :** Anti-GFAP antibody (ab53554) at 0.01 µg/ml

Lane 1 : Human brain lysate

Lane 2 : Mouse brain lysate

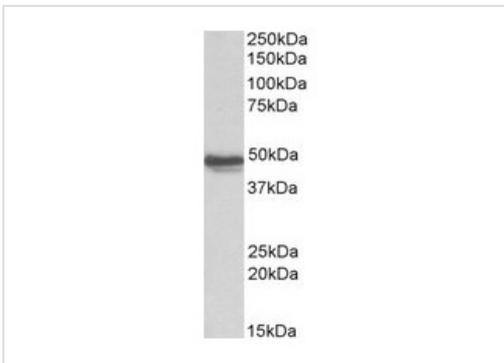**Lane 3 :** Rat brain lysate

Lysates/proteins at 35 µg per lane.

Predicted band size: 50 kDa

Western blot - Anti-GFAP antibody (ab53554)

Immunohistochemistry (Frozen sections) - Anti-GFAP antibody (ab53554)

This image is courtesy of an Abreview submitted by Judith Kranz

ab53554 staining GFAP in Mouse brain tissue sections by Immunohistochemistry (IHC-Fr - frozen sections). Tissue was fixed with paraformaldehyde, permeabilized with TBS + 0.25% Triton X 100 and blocked with 10% serum for 1 hour at 23°C. Samples were incubated with primary antibody (1/1000 in TBS + 0.25% Triton-X 100) for 16 hours at 4°C. A Cy2®-conjugated Donkey anti-goat IgG polyclonal (1/200) was used as the secondary antibody. The image shows GFAP (green) and DAPI (blue) around the dentate gyrus.
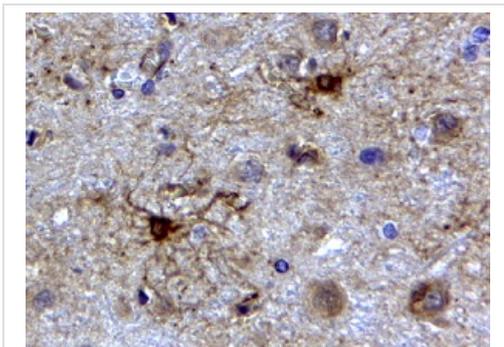

Western blot - Anti-GFAP antibody (ab53554)

Anti-GFAP antibody (ab53554) at 0.1 µg/ml + Mouse Brain Lysate in RIPA Buffer at 35 µg

Developed using the ECL technique.

Predicted band size: 50 kDa

Primary incubation was 1 hour.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody (ab53554)

Immunohistochemical analysis of paraffin embedded Human cerebellum tissue labeling GFAP with ab53554 at 2 µg/ml. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.
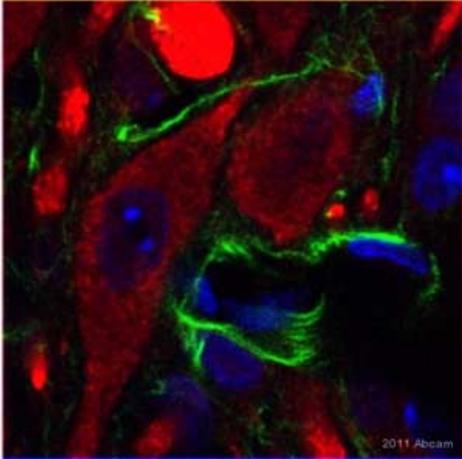
ab53554 staining GFAP in Mongolian gerbil brain tissue sections by Immunohistochemistry - Free Floating. Samples were incubated with ab53554 at a 1/500 dilution in 1% BSA, 0.3% Triton X-100, 0.1% Saponin for 16 hours at 4°C. ab6566 Donkey polyclonal Secondary Antibody to anti-goat Cy5 ® (IgG - H&L)), pre-adsorbed was used as the secondary antibody at a 1/100 dilution (green). Nuclei are counterstained with DAPI.

Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody (ab53554)

Image courtesy of an anonymous Abreview.
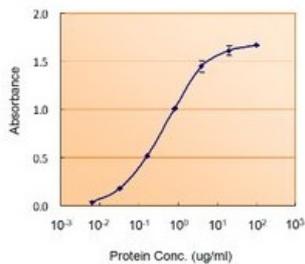
ab53554 (5ug/ml) as the reporter with a capture rabbit antibody (5ug/ml).

Sandwich ELISA - Anti-GFAP antibody (ab53554)

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors