Datasheet for ABIN6655053

anti-GFAP antibody

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Overview

Quantity:	100 µL
Target:	GFAP
Reactivity:	Cow
Host:	Chicken
Clonality:	Polyclonal
Conjugate:	This GFAP antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Fluorescence Microscopy (FM)

Product Details

Purpose:	Glial Fibrillary Acidic Protein (GFAP) Antibody
Immunogen:	Anti-GFAP Antibody was produced by repeated immunizations with recombinant and extensively purified bovine GFAP.
Isotype:	IgG
Cross-Reactivity (Details):	Anti-GFAP Antibody is directed against bovine GFAP.
Purification:	The antibody is a total IgY fraction.

Target Details

Target:	GFAP
Abstract:	GFAP Products
Background:	Synonyms: gfapl, DKFZp459C0729, MGC139638, FLJ45472, AI836096, cb345. Glial fibrillary

Target Details

	acidic protein, GFAP antibody, neuroscience antibodies Background: GFAP Antibody detects GFAP. Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and co-workers as a major fibrous protein of multiple sclerosis plaques. It was subsequently found to be a member of the 10nm or intermediate filament (IF) family, specifically the IF family Class III, which also includes peripherin, desmin and vimentin. GFAP is strongly and specifically expressed in astrocytes and certain other astroglia in the CNS, in satellite cells, peripheral ganglia, and in non-myelinating Schwann cells in peripheral nerves. In many damage and disease states GFAP expression is heavily upregulated in astrocytes. In addition, neural stem cells frequently strongly express GFAP. Point mutations in the protein coding region of the GFAP gene lead to Alexander disease which is characterized by the presence of abnormal astrocytes containing GFAP protein aggregates known as Rosenthal fibers. Therefore, GFAP antibody is ideal for investigators involved in neuropathologic diseases and more generally in Neuroscience. Gene Name: GFAP
Gene ID:	281189
UniProt:	Q28115

Application Details

Application Notes:	IF_Microscopy_Dilution: 1:1000 Western_Blot_Dilution: 1:10000
Comment:	Suggested Applications: IHC Anti-Glial Fibrillary Acidic Protein (Chicken) antibody is tested for use in Western Blotting, ICC, and IHC. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 50 kDa in size corresponding to the GFAP proteins in the appropriate cell lysate or extract. A lower band at ~45kDa is a proteolytic fragment derived from the GFAP molecule.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Optional[Buffer]: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 ,0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide

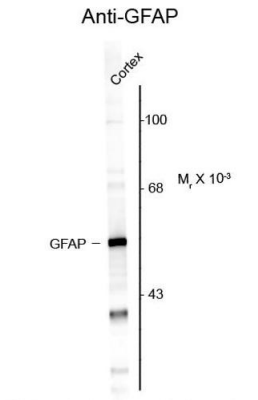
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Gleichman, Kawaguchi, Sofroniew, Carmichael: "A toolbox of astrocyte-specific, serotype-independent adeno-associated viral vectors using microRNA targeting sequences." in: **Nature communications**, Vol. 14, Issue 1, pp. 7426, (2023) (PubMed).

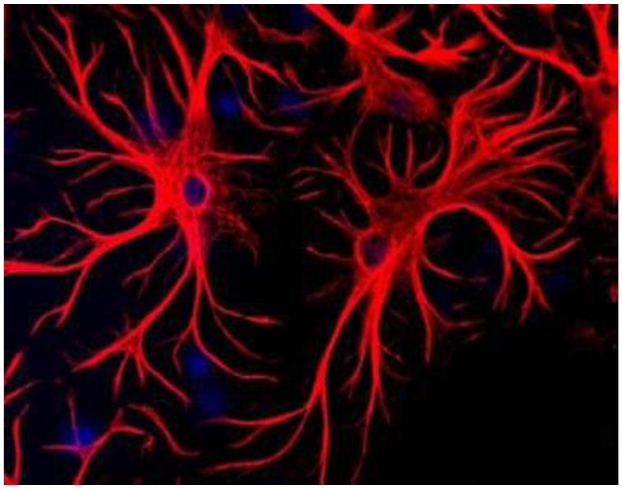
Images



Western blot of rat cortex lysate showing specific immunolabeling of the ~50k GFAP protein.

Western Blotting

Image 1. Western Blot of Anti-Glial Fibrillary Acidic Protein (GFAP) (Chicken) Antibody - 200-901-D60 Western Blot of Rabbit anti-Glial Fibrillary Acidic Protein (GFAP) antibody. Lane 1: rat cortex lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: GFAP antibody at 1:400 for overnight at 4°C. Secondary antibody: chicken secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~ 50kDa/~50kDa for GFAP protein. Other band(s): splice variants and isoforms.



Immunofluorescence

Image 2. Immunofluorescence Microscopy of Anti-Glial Fibrillary Acidic Protein (GFAP) (Chicken) Antibody Immunofluorescence Microscopy of Anti-Glial Fibrillary Acidic Protein (GFAP) (Chicken) Antibody. Tissue: Mixed cultures of neurons and glia. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: GFAP antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein chicken secondary antibody at 1:10,000 for 45 min at RT. Localization: GFAP is cytoplasmic. Staining: chicken anti-GFAP (red), and DNA (blue). Astrocytes stain strongly and specifically in a clearly filamentous fashion with this antibody