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Anti-Glial Fibrillary Acidic Protein (GFAP) Antibody

Our Anti-Glial Fibrillary Acidic Protein (GFAP) primary antibody from PhosphoSolutions is rabbit pol
Catalog # AN1413

Product Information

Application	WB, IHC, ICC
Primary Accession	P14136
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	49880

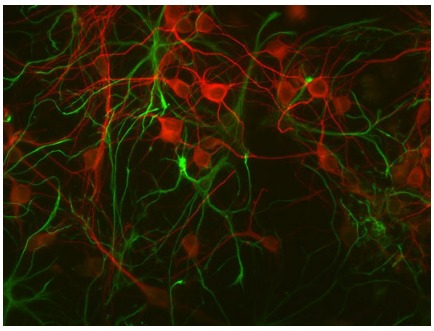
Additional Information

Gene ID	2670
Other Names	wu:fb34h11 antibody, ALXDRD antibody, cb345 antibody, etID36982.3 antibody, FLJ42474 antibody, FLJ45472 antibody, GFAP antibody, GFAP_HUMAN antibody, gfapl antibody, Glial fibrillary acidic protein antibody, Intermediate filament protein antibody, wu:fk42c12 antibody, xx:af506734 antibody, zgc:110485 antibody
Target/Specificity	Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and co-workers as a major fibrous protein of multiple sclerosis plaques (1). 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 (2).
Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A
Format	Neat Serum
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Glial Fibrillary Acidic Protein (GFAP) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

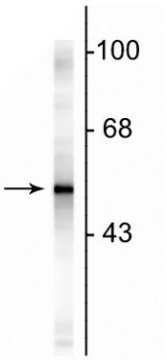
Background

Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and co-workers as a major fibrous protein of multiple sclerosis plaques (1). 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 (2).

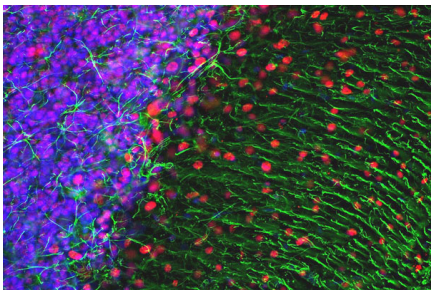
Images



Immunolabeling of mouse cortical cultures labeled with Anti-GFAP (cat. AN1413, 1:1000, green) and anti-MAP2 (1100-MAP2, 1:1000, red).

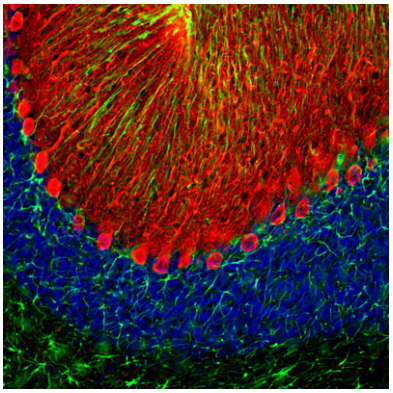


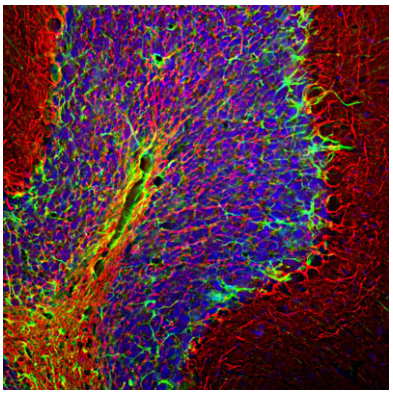
Western blot of rat cortical lysate showing specific immunolabeling of the ~50 kDa GFAP protein.



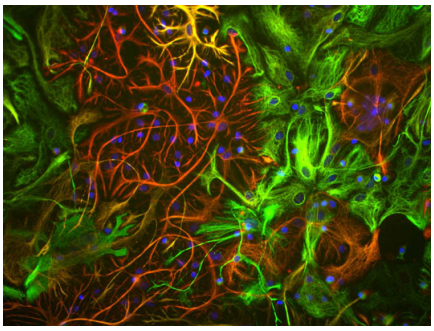
Immunofluorescence of a section of rat cerebellum labeled with anti-GFAP (cat. AN1413, 1:5000,green), colabeled with anti-MeCP2 (cat. 1205-MeCP2, 1:500, red), and DAPI staining of nuclear DNA. The anti-GFAP labels the astrocytic cells and the processes of Bergmann glia in the molecular layer.

Immunofluorescence of a section of rat cerebellum labeled with anti-GFAP (cat. AN1413, 1:5000,green), colabeled with anti-calbindin (cat. 302-CALB , 1:2,000, red), and DAPI staining of nuclear DNA. The anti-calbindin prominently labels the dendrites and perikarya of Purkinje cells in the molecular layer of the cerebellum. The anti-GFAP labels the processes of Bergmann glia in the molecular layer and the astroglia in the granular and white layers of the cerebellum.





Immunofluorescence of a section of rat cerebellum showing specific labeling of Neurofilament H (cat. 1451-NFH, 1:25,000, red) in nuclei of neurons and specific labeling of GFAP (cat. AN1413, 1:5000, green) in astrocytes and other glial cells, and DAPI staining of nuclear DNA.



Mixed neuron/glial cultures stained with anti-vimentin (green, 1:500) and rabbit anti-GFAP antibody (cat. AN1413, red, 1:1000). The blue stains nuclear DNA. Vimentin is expressed alone in fibroblastic and endothelial cells, which are the flattened cells in the middle of the image which appear green. Astrocytes may express primarily GFAP, or GFAP and vimentin, and so appear red (GFAP only) or golden yellow (GFAP and Vimentin).

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