Synaptic Systems

Rudolf-Wissell-Str. 28
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

GFAP

Cat.No. 173 211; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (AP staining) (see remarks) **IP**: yes **ICC**: 1 : 500 up to 1 : 1000 **IHC**: 1 : 500 **IHC-P/FFPE**: 1 : 500 **ELISA**: yes
Clone	186C6
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 432 from human GFAP (UniProt Id: P14136)
Epitop	Epitop: AA 1 to 15 from human GFAP (UniProt Id: P14136)
Reactivity	Reacts with: human (P14136), rat (P47819), mouse (P03995), cow. Other species not tested yet.
Specificity	Specific for GFAP.
matching control	173-0P
Remarks	**WB**: The monoclonal antibodies are less sensitive compared to the polyclonals.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Glial **f**ibrillary **a**cidic **p**rotein **GFAP** is a glial-specific member of the intermediate filament protein family. This group comprises celltype-specific filamentous proteins with similar structure and function as scaffold for cytoskeleton assembly and maintenance.
Frequently, neural stem cells also express GFAP. In addition many types of brain tumors, probably derived from astrocytic cells, heavily express GFAP. This protein is also found in the lens epithelium, Kupffer cells of the liver, in some cells in salivary tumors and others.
Point-mutations in the GFAP gene have been correlated to Alexander disease a fatal leukoencephalopathy that leads to the dysmyelination or demyelination of the central nervous system.

Selected References SYSY Antibodies

A DNA-based nano-immunoassay for the label-free detection of glial fibrillary acidic protein in multicell lysates.
Ganau M, Bosco A, Palma A, Corvaglia S, Parisse P, Fruk L, Beltrami AP, Cesselli D, Casalis L, Scoles G
Nanomedicine : nanotechnology, biology, and medicine (2015) 11(2): 293-300. **ELISA**

Selected General References

Loss of glial fibrillary acidic protein (GFAP) impairs Schwann cell proliferation and delays nerve regeneration after damage.
Triolo D, Dina G, Lorenzetti I, Malaguti M, Morana P, Del Carro U, Comi G, Messing A, Quattrini A, Previtali SC
Journal of cell science (2006) 119(Pt 19): 3981-93.

Asymptomatic hereditary Alexander's disease caused by a novel mutation in GFAP.
Shiihara T, Sawaishi Y, Adachi M, Kato M, Hayasaka K
Journal of the neurological sciences (2004) 225(1-2): 125-7.

Glial fibrillary acidic protein: GFAP-thirty-one years (1969-2000).
Eng LF, Ghirnikar RS, Lee YL
Neurochemical research (2000) 25(9-10): 1439-51.

GFAP-positive and myelin marker-positive glia in normal and pathologic environments.
Dyer CA, Kendler A, Jean-Guillaume D, Awatramani R, Lee A, Mason LM, Kamholz J
Journal of neuroscience research (2000) 60(3): 412-26.

Expression of GFAP immunoreactivity during development of long fiber tracts in the rat CNS.
Valentino KL, Jones EG, Kane SA
Brain research (1983) 285(3): 317-36.

Glial fibrillary acidic protein (GFAP): purification from human fibrillary astrocytoma, development and validation of a radioimmunoassay for GFAP-like immunoactivity.
Palfreyman JW, Thomas DG, Ratcliffe JG, Graham DI
Journal of the neurological sciences (1979) 41(1): 101-13.

Determination of glial fibrillary acidic protein (GFAP) in human brain tumors.
Jacque CM, Vinner C, Kujas M, Raoul M, Racadot J, Baumann NA
Journal of the neurological sciences (1978) 35(1): 147-55.