iFluor™ 594 Conjugated Anti-GFAP Antibody [1-D4]

HA600102F

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IF-Tissue
Molecular Wt:	50 kDa
Clone number:	1-D4

Description: Glial fibrillary acidic protein (GFAP) is an intermediate filament protein. The protein is the smallest (8 nm) of the intermediate filament proteins with a molecular weight of about 51 kDa. In the central nervous system, GFAP is expressed in astrocytes and ependymal cells but not in other glial cells. However, immature oligodendrocytes and immature choroid plexus cells may be GFAP positive. In the peripheral nervous system enteric Schwann cells and satellite cells of human sensory ganglia express GFAP. Outside the nervous system, GFAP is seen in myoepithelial cells and chondroblasts, in the former coexpressed with cytokeratin, in the latter coexpressed with vimentin. Astrocytoma, ependymoma, glioblastoma, and oligodendroglioma are almost always positive. Plexus carcinoma, ganglioglioma and primitive neuroectodermal tumours (PNET: neuroblastoma a.o.) express GFAP to a varying extent. Schwannoma and neurofibroma frequently express GFAP. Chondroma, chondrosarcoma and pleomorphic adenoma are also GFAP positive in most cases. A few carcinomas (especially from lung and breast) may express GFAP. in paraganglioma GFAP may be detected in sustentacular cells.

Conjugate:	iFluor™ 594, Amax: 587nm; Emax: 603nm.
Immunogen:	Synthetic peptide within C-terminal human GFAP.
Positive control:	Mouse brain tissue, rat brain tissue, rat cerebellum tissue.
Subcellular location:	Cytoplasm.
Database links:	SwissProt: P14136 Human | P03995 Mouse | P47819 Rat
Recommended Dilutions:	
IF-Tissue	1:200
Storage Buffer:	Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein G affinity purified.

Images

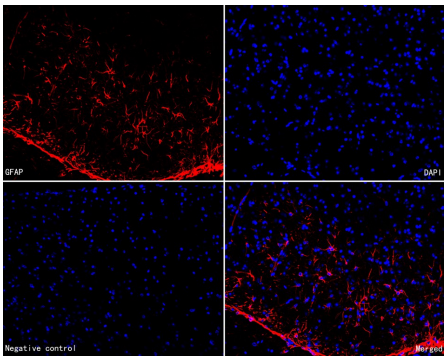

Fig1: Immunofluorescence analysis of paraffin-embedded mouse brain tissue labeling GFAP with Mouse anti-GFAP antibody (HA600102F) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then incubated overnight with GFAP-iFluor™ 594 (HA600102F, red) at 1/200 dilution overnight at +4℃ , washed with PBS. Nuclear DNA was labelled in blue with DAPI.

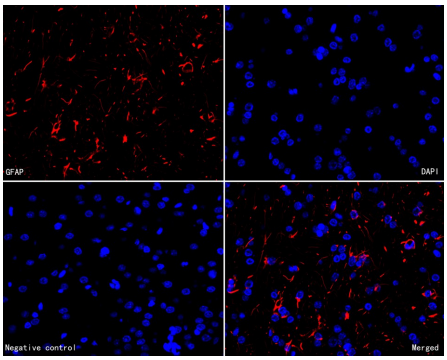

Fig2: Immunofluorescence analysis of paraffin-embedded rat brain tissue labeling GFAP with Mouse anti-GFAP antibody (HA600102F) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then incubated overnight with GFAP-iFluor™ 594 (HA600102F, red) at 1/200 dilution overnight at +4℃ , washed with PBS. Nuclear DNA was labelled in blue with DAPI.

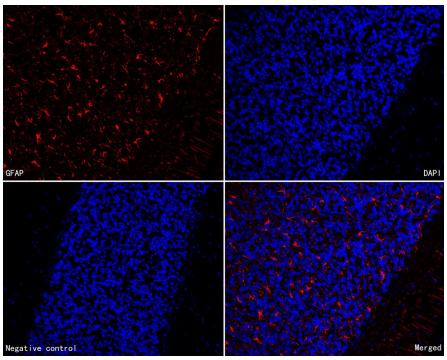

Fig3: Immunofluorescence analysis of paraffin-embedded rat cerebellum tissue labeling GFAP with Mouse anti-GFAP antibody (HA600102F) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then incubated overnight with GFAP-iFluor™ 594 (HA600102F, red) at 1/200 dilution overnight at +4℃ , washed with PBS. Nuclear DNA was labelled in blue with DAPI.

Background References

1. A new splice variant of glial fibrillary acidic protein GFAP epsilon, interacts with the presenilin proteins. Nielsen A.L., Holm I.E., Johansen M., Bonven B., Jorgensen P., Jorgensen A.L. J. Biol. Chem. 277:29983-29991(2002)
2. Mutations in GFAP, encoding glial fibrillary acidic protein, are associated with Alexander disease. Brenner M., Johnson A.B., Boespflug-Tanguy O., Rodriguez D., Goldman J.E., Messing A. Nat. Genet. 27:117-120(2001)