





## Anti-GFAP Antibody NH-M-1-D4

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

Description:	Glial fibrillary acidic protein (GFAP) is a protein that is encoded by the GFAP gene in humans. It is a type III intermediate filament (IF) protein that is expressed by numerous cell types of the central nervous system (CNS), including astrocytes and ependymal cells during development. GFAP has also been found to be expressed in glomeruli and peritubular fibroblasts taken from rat kidneys, Leydig cells of the testis in both hamsters and humans, human keratinocytes, human osteocytes and chondrocytes and stellate cells of the pancreas and liv er in rats. GFAP is closely related to the other three non-epithelial type III IF family members, v imentin, desmin and peripherin, which are all involved in the structure and function of the cell's cytoskeleton. GFAP is thought to help to maintain astrocyte mechanical strength as well as the shape of cells, but its exact function remains poorly understood, despite the number of studies using it as a cell marker. There are multiple disorders associated with improper GFAP regulation, and injury can cause glial cells to react in detrimental ways. Glial scarring is a consequence of several neurodegenerative conditions, as well as injury that severs neural material. Another condition directly related to GFAP is Alexander disease, a rare genetic disorder. Notably, the expression of some GFAP isoforms have been reported to decrease in response to acute infection or neurodegeneration. Additionally, reduction in GFAP expression has also been reported in Wernicke's encephalopathy.
Immunogen:	Synthetic peptide within C-terminal human GFAP.
Positive control:	Mouse brain tissue .
Subcellular location:	Cytoplasm.
Recommended Dilutions	
IF-Tissue Clearing	1:50
Adaptive Clearing kit	Tissue Clearingg Kit(Hydrophilic) (Cat#:NH-CR-210701)
Storage Buffer:	1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4 $^\circ C$ after thawing. Aliquot store at -20 $^\circ C$ or -80 $^\circ C$ . Avoid



	repeated freeze / thaw cycles.
Purity:	Protein A affinity purified

Images



Fig1:Immunofluorescence analysis of fresh mouse brain tissue labeling GFAP (NH-M-1-D4) at 1/50 dilution.

The section was treated with Tissue Clearing Kit(Hydrophilic) (Cat#:NH-CR-210701), the tissues were blocked for 2 hours at 4 $^{\circ}$ C, washed with PBS, and then probed with the primary antibody (NH-M-1-D4,1/50) overnight at 4 $^{\circ}$ C, washed with PBS. Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) was used as the secondary antibody at 1/50 dilution. Image acquisition was performed with Zeiss 980.



