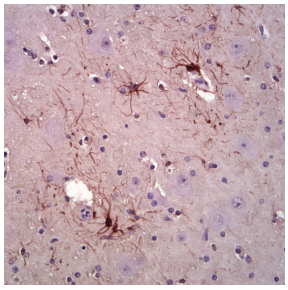
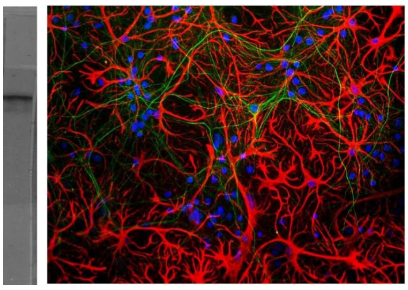
Product Data Sheet:
GFAP Mouse Monoclonal Antibody

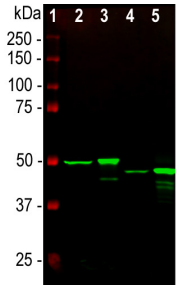
Cat. No:	MAB-94160
Conjugate:	Unconjugated
Size:	100 ul
Clone:	5C10
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG1
Immunogen:	Purified porcine spinal cord GFAP
Reactivity:	Hu, Ms, Rt, Cw, Pg, Ho
Applications:	Western blot: 1:2,500. Immunofluorescence : 1: 1,000 Immunocytochemsitry : 1:500 – 1: 1,000 Immunohistochemistry (Paraffin embedded tissues) 1:500. Immunohistochemistry (Frozen Tissues) 1:500 – 1,000
Molecular Weight:	50kDa
Purification:	Purified
Background:	Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and coworkers as a major fibrous protein of multiple sclerosis plaques (1). It was subsequently found to be a member of the 10nm or intermediate filament protein family, specifically the intermediate filament protein family Class III, which also includes peripherin, desmin and vimentin. The GFAP protein runs on gels as a ~50kDa protein, usually associated with somewhat lower molecule weight bands which are alternate transcripts from the single gene.GFAP is strongly and specifically expressed in astrocytes and certain other astroglia in the central nervous system, in satellite cells in peripheral ganglia, and in non-myelinating Schwann cells in peripheral nerves .Antibodies to GFAP are therefore very useful as markers of normal and reactive astrocytic cells and neural stem cells. Antibody characteristics : 5C10 is a IgG1 class antibody with a κ light chain and was raised against a preparation of purified pig spinal cord GFAP.It is strong and clean on western blots and works well on frozen sections, cells in tissue culture and on formalin fixed histological sections.
Form:	Liquid
Buffer:	Supplied in PBS, 50% glycerol, 5mM NaN3
Storage:	At 4°C short term or -20°C long term. Avoid repeated freezing and thawing.



This is one of a series of formalin fixed



Left: Strip blot of rat spinal cord protein



Western blot analysis of whole tissue

paraffin embedded horse brain samples .The brains from this series were removed whole, sliced incompletely cross ways and fixed over a 10-20 day period. The whole brain was put in a large necropsy specimen bucket containing 1-2 gallons of fixative, and after 24 hours, the formalin was poured off and then fresh formalin was added. The samples were fixed and embedded in paraffin in 2007 and sections were kept at room temperature until 2011. The sections were processed for antigen retrieval by boiling in pH=6 Citrate buffer for 10 min. Primary incubation with 5C10 was for 1 hour at 37°C, and secondary antibody incubation and color reaction was performed using the Vector mouse ABC kit.

extract stained with GFAP (5C10). A prominent band at about 50 kDa corresponds to the major isoform of GFAP.

Right: Mixed neuron-glial cultures stained with GFAP (5C10), and chicken polyclonal antibody to neurofilament NF-L-green). The GFAP antibody stains the network of astrocytes in these cultures, while the NF-L antibody stains neurons and their processes. The blue channel shows the localization of DNA.

lysates using mouse mAb to GFAP, clone-5C10, dilution 1:2,000, in green:
[1] protein standard (red),
[2] rat brain,
[3] rat spinal cord,
[4] mouse brain,
[5] mouse spinal cord.
The strong band at about 50kDa corresponds to the GFAP protein.