BACKGROUND
Glial fibrillary acidic protein, or GFAP, is an intermediate filament (IF) protein belonging to the type III subclass of IF proteins. Like other IF proteins, GFAP is composed of an amino-terminal head domain, a central rod domain and a carboxy-terminal tail domain. GFAP is specifically found in astroglia, a cell type which is highly responsive to neurologic insults. Astrogliosis is found to be a result of mechanical trauma, AIDS dementia, prion infection and inflammatory demyelination diseases, and is accompanied by an increase in GFAP expression. GFAP is an immunohistochemical marker for localizing benign astrocyte and neoplastic cells of glial origin in the central nervous system.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: GFAP (human) mapping to 17q21.31; Gfap (mouse) mapping to 11 E1.

SOURCE
GFAP (2Q63) is a mouse monoclonal antibody raised against purified spinal cord GFAP of porcine origin.

PRODUCT
Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE
Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
GFAP (2Q63) is recommended for detection of GFAP of mouse, rat, human and porcine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1:2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of GFAP: 50 kDa.

Positive Controls: Rat brain extract: sc-2392, mouse brain extract: sc-2253 or GFAP (h2): 293T Lysate: sc-115582.

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmuneCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

DATA

RESEARCH USE
For research use only, not for use in diagnostic procedures.

PROTOCOLS
See our web site at www.scbt.com or our catalog for detailed protocols and support products.