SANTA CRUZ BIOTECHNOLOGY, INC.

GFAP (H-50): sc-9065

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 demylination 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

1. Matsuoka, Y., et al. 1992. Two different protein kinases act on a different time schedule as glial filament kinases during mitosis. EMBO J. 11: 2895-2902.
2. McLendon, R.E., et al. 1994. Immunohistochemistry of the glial fibrillary acidic protein: basic and applied considerations. Brain Pathol. 4: 221-228.

CHROMOSOMAL LOCATION

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

SOURCE

GFAP (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 of GFAP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GFAP (H-50) is recommended for detection of GFAP of mouse, rat and human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GFAP siRNA (h): sc-29332, GFAP siRNA (m): sc-35466, GFAP siRNA (r): sc-155993, GFAP shRNA Plasmid (h): sc-29332-SH, GFAP shRNA Plasmid (m): sc-35466-SH, GFAP shRNA Plasmid (r): sc-155993-SH, GFAP shRNA (h) Lentiviral Particles: sc-29332-V, GFAP shRNA (m) Lentiviral Particles: sc-35466-V and GFAP shRNA (r) Lentiviral Particles: sc-155993-V.

Molecular Weight of GFAP: 50 kDa.

Positive Controls: mouse brain extract: sc-2253, rat brain extract: sc-2392 or SW-13 cell lysate: sc-24778

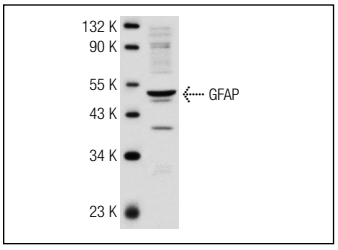
RESEARCH USE

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

STORAGE

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

DATA



GFAP (H-50): sc-9065. Western blot analysis of GFAP expression in mouse brain tissue extract.

SELECT PRODUCT CITATIONS

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2. Wang, D.D., et al. 2009. IL-17 potentiates neuronal injury induced by oxygen-glucose deprivation and affects neuronal IL-17 receptor expression. J. Neuroimmunol. 212: 17-25.
3. Yang, L.P., et al. 2009. Baicalein reduces inflammatory process in a rodent model of diabetic retinopathy. Invest. Ophthalmol. Vis. Sci. 50: 2319-2327.
4. Yu, J., et al. 2009. Intracerebroventricular injection of epidermal growth factor reduces neurological deficit and infarct volume and enhances nestin expression following focal cerebral infarction in adult hypertensive rats. Clin. Exp. Pharmacol. Physiol. 36: 539-546.
5. Helms, H.C., et al. 2010. Paracellular tightness and claudin-5 expression is increased in the BCEC/astrocyte blood-brain barrier model by increasing media buffer capacity during growth. AAPS J. 12: 759-770.
6. Borkham-Kamphorst, E., et al. 2011. Induction of lipocalin-2 expression in acute and chronic experimental liver injury moderated by pro-inflammatory cytokines interleukin-1β through nuclear factor-κB activation. Liver Int. 31: 656-665.
7. Osonoi, M., et al. 2011. Fibroblasts have plasticity and potential utility for cell therapy. Hum. Cell 24: 30-34.
8. Razafimanjato, H., et al. 2011. The ribotoxin deoxynivalenol affects the viability and functions of glial cells. Glia 59: 1672-1683.