

GFAP (C-19): sc-6170

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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

GFAP (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GFAP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6170 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GFAP (C-19) 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).

GFAP (C-19) is also recommended for detection of GFAP in additional species, including equine, canine, bovine, porcine and avian.

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, U-87 MG cell lysate: sc-2411 or rat brain extract: sc-2392.

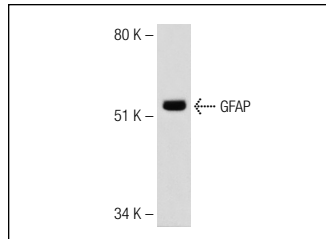
STORAGE

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

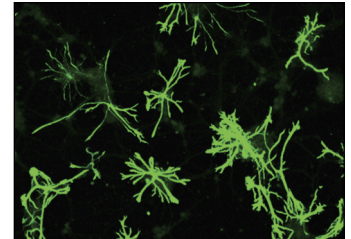
RESEARCH USE

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

DATA



GFAP (C-19): sc-6170. Western blot analysis of GFAP expression in rat brain tissue extract.



GFAP (C-19): sc-6170. Immunofluorescence staining of formalin-fixed cerebellar cell primary culture showing staining of astrocyte processes and cell bodies. Kindly provided by Robert B. Denman, PhD, New York State Institute for Basic Research in Developmental Disabilities.

SELECT PRODUCT CITATIONS

- Vogel, K.S., et al. 1999. Mouse tumor model of neurofibromatosis type I. *Science* 286: 2176-2179.
- Freria, C.M., et al. 2010. Major histocompatibility complex class I expression and glial reaction influence spinal motoneuron synaptic plasticity during the course of experimental autoimmune encephalomyelitis. *J. Comp. Neurol.* 518: 990-1007.
- Takenaka, C., et al. 2010. Effective generation of iPS cells from CD34+ cord blood cells by inhibition of p53. *Exp. Hematol.* 38: 154-162.
- Santos, S.D., et al. 2010. CSF transthyretin neuroprotection in a mouse model of brain ischemia. *J. Neurochem.* 115: 1434-1444.
- Sobrado, M., et al. 2012. Regulator of calcineurin 1 (Rcan1) has a protective role in brain ischemia/reperfusion injury. *J. Neuroinflammation* 9: 48.
- Farioli-Vecchioli, S., et al. 2012. Btg1 is required to maintain the pool of stem and progenitor cells of the dentate gyrus and subventricular zone. *Front. Neurosci.* 6: 124.
- Diaz-Hernandez, J.I., et al. 2012. *In vivo* P2X7 inhibition reduces amyloid plaques in Alzheimer's disease through GSK3β and secretases. *Neurobiol. Aging* 33: 1816-1828.
- El Ghazi, F., et al. 2012. NO-dependent protective effect of VEGF against excitotoxicity on layer VI of the developing cerebral cortex. *Neurobiol. Dis.* 45: 871-886.



Try **GFAP (2E1): sc-33673** or **GFAP (GA-5): sc-58766**, our highly recommended monoclonal alternatives to GFAP (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GFAP (2E1): sc-33673**.