

α -internexin (N-19): sc-7571

BACKGROUND

α -internexin is a brain specific type IV intermediate filament protein. This axonal protein is found in most, if not all, neurons of the CNS. The head domain of α -internexin is essential for self-assembly into a filament network. Expression levels of α -internexin have been shown to be maximal during late embryo-genesis and to decline into adulthood, suggesting that this protein plays a role in regulatory processes during the development of the brain. The α -internexin promoter was shown to be activated by Brn-3a or Brn-3c transcription factor binding while Brn-3b binding to the promoter results in α -internexin repression.

REFERENCES

1. Flegner, K.H., et al. 1990. The predicted amino acid sequence of α -internexin is that of a novel neuronal intermediate filament protein. *EMBO J.* 9: 749-755.
2. Flegner, K.H., et al. 1994. Expression of the gene for the neuronal intermediate filament protein α -internexin coincides with the onset of neuronal differentiation in the developing rat nervous system. *J. Comp. Neurol.* 342: 161-173.
3. Budhram-Mahadeo, V., et al. 1995. Activation of the α -internexin promoter by the Brn-3a transcription factor is dependent on the N-terminal region of the protein. *J. Biol. Chem.* 270: 2853-2858.
4. Suzuki, T., et al. 1997. Excitable membranes and synaptic transmission: postsynaptic mechanisms. Localization of α -internexin in the postsynaptic density of the rat brain. *Brain Res.* 765: 74-80.

CHROMOSOMAL LOCATION

Genetic locus: INA (human) mapping to 10q24.33; Ina (mouse) mapping to 19 C3.

SOURCE

α -internexin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of α -internexin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7571 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

α -internexin (N-19) is recommended for detection of α -internexin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

α -internexin (N-19) is also recommended for detection of α -internexin in additional species, including equine, bovine and porcine.

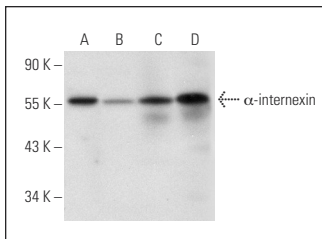
Suitable for use as control antibody for α -internexin siRNA (h): sc-41992, α -internexin siRNA (m): sc-41993, α -internexin shRNA Plasmid (h): sc-41992-SH, α -internexin shRNA Plasmid (m): sc-41993-SH, α -internexin shRNA (h) Lentiviral Particles: sc-41992-V and α -internexin shRNA (m) Lentiviral Particles: sc-41993-V.

Molecular Weight (predicted) of α -internexin: 55 kDa.

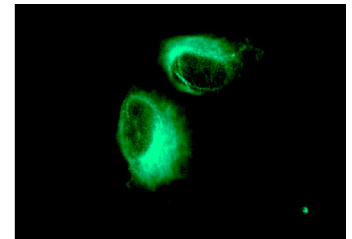
Molecular Weight (observed) of α -internexin: 56/66 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, Y79 cell lysate: sc-2240 or human spinal cord tissue extract.

DATA



α -internexin (N-19): sc-7571. Western blot analysis of α -internexin expression in SH-SY5Y (A) and Y79 (B) whole cell lysates and human brain (C) and human spinal cord (D) tissue extracts.



α -internexin (N-19): sc-7571. Immunofluorescence staining of methanol-fixed IMR-32 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Yokose, T., et al. 2004. Establishment and characterization of a nerve cell line (NC-HIMT) from HIMT cells derived from a human ovarian immature teratoma with special reference to the induction of neuron differentiation by retinoic acid. *Hum. Cell* 17: 59-66.

RESEARCH USE

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


 MONOS
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Try α -internexin (G-9): sc-271302 or α -internexin (2E3): sc-58478, our highly recommended monoclonal alternatives to α -internexin (N-19).