

# $\alpha$ -internexin (C-18): sc-7570

## BACKGROUND

$\alpha$ -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  $\alpha$ -internexin is essential for self-assembly into a filament network. Expression levels of  $\alpha$ -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  $\alpha$ -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  $\alpha$ -internexin repression.

## REFERENCES

1. Fliegner, K.H., et al. 1990. The predicted amino acid sequence of  $\alpha$ -internexin is that of a novel neuronal intermediate filament protein. EMBO J. 9: 749-755.
2. Fliegner, K.H., et al. 1994. Expression of the gene for the neuronal intermediate filament protein  $\alpha$ -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  $\alpha$ -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  $\alpha$ -internexin in the postsynaptic density of the rat brain. Brain Res. 765: 74-80.
5. Ching, G.Y., et al. 1998. Roles of head and tail domains in  $\alpha$ -internexin's self-assembly and coassembly with the neurofilament triplet proteins. J. Cell Sci. 111: 321-333.

## CHROMOSOMAL LOCATION

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

## SOURCE

$\alpha$ -internexin (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of  $\alpha$ -internexin of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-7570 P, (100  $\mu$ 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.

## APPLICATIONS

$\alpha$ -internexin (C-18) is recommended for detection of  $\alpha$ -internexin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

$\alpha$ -internexin (C-18) is also recommended for detection of  $\alpha$ -internexin in additional species, including equine, canine, bovine and porcine.

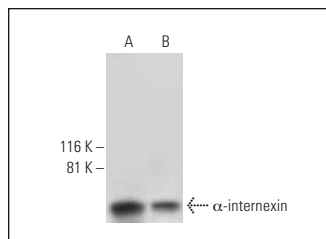
Suitable for use as control antibody for  $\alpha$ -internexin siRNA (h): sc-41992,  $\alpha$ -internexin siRNA (m): sc-41993,  $\alpha$ -internexin shRNA Plasmid (h): sc-41992-SH,  $\alpha$ -internexin shRNA Plasmid (m): sc-41993-SH,  $\alpha$ -internexin shRNA (h) Lentiviral Particles: sc-41992-V and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

Molecular Weight (predicted) of  $\alpha$ -internexin: 55 kDa.

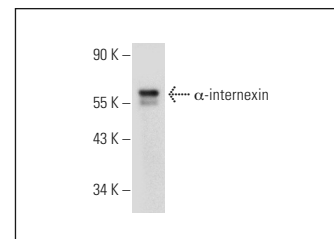
Molecular Weight (observed) of  $\alpha$ -internexin: 56/66 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or Y79 cell lysate: sc-2240.

## DATA



$\alpha$ -internexin (C-18): sc-7570. Western blot analysis of  $\alpha$ -internexin expression in SH-SY5Y (A) and Y79 (B) whole cell lysates.



$\alpha$ -internexin (C-18): sc-7570. Western blot analysis of  $\alpha$ -internexin expression in human brain tissue extract.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try  $\alpha$ -internexin (G-9): sc-271302 or  $\alpha$ -internexin (2E3): sc-58478, our highly recommended monoclonal alternatives to  $\alpha$ -internexin (C-18).