

SCIENTIFIC BACKGROUND:


Alpha-internexin is a ~66 kDa Class IV intermediate filament. It is related to but distinct from the better known neurofilament triplet proteins, NF-L, NF-M and NF-H, and has similar protein sequence motifs and intron organization. It is expressed in large amounts early in neuronal development, but is down regulated in many neurons as development proceeds. Many classes of mature neurons contain alpha-internexin in addition to neurofilament proteins NF-L, NF-M and NF-H. In some mature neurons alpha-internexin is the only neurofilament subunit expressed. In addition the very early developmental expression of alpha-internexin means its presence is an early and convenient diagnostic feature of neuronal progenitors cells and other cells committed to the neuronal lineage. In addition recent studies show a marked up-regulation of alpha-internexin during neuronal regeneration.

Product Information Sheet

ANTI- α -Internexin

Rabbit Polyclonal Antibody

Catalog #01442 0.1 mL



ANTIBODIES

SPECIFICITY:

This rabbit polyclonal antibody detects alpha-internexin from human, rat, mouse, cat and all other species tested to date.

IMMUNOGEN:

This rabbit polyclonal antibody was raised against recombinant alpha-internexin expressed in and purified from *E. coli*.

FORMAT:

Rabbit polyclonal antiserum.

STABILITY AND STORAGE:

The antibody should be stored long term at -20°C or aliquoted into smaller volumes for short-term storage (1 - 2 months) at 4°C. The product is stable at -20°C for up to 12 months from date of receipt.

Avoid repeated freezing/thawing.

APPLICATIONS AND DIRECTIONS FOR USE:

Refer to Material Data Safety Sheet for more information.

Centrifuge tube briefly before use to ensure recovery of entire content.

The suggested working dilution for immunofluorescence is 1:500. Additional applications include Western blotting, with a suggested working dilution of 1:5000. Expect to see a major band at 66 to 68 kDa, depending on the species. Minor bands at ~150 kDa are probably covalent dimers, and bands at ~50 kDa represent alpha-internexin breakdown products. Note: Optimal working dilutions should be determined for each specific application.

REFERENCES:

Pachter J, Liem RKH: Alpha-Internexin, a 66-kD intermediate filament-binding protein from mammalian central nervous tissues. *J. Cell Biol* 101: 1316-1322, 1985

McGraw TS, Mickle JP, Shaw G, Streit WJ: Axonally transported peripheral signals regulate alpha-internexin expression in regenerating motoneurons. *J Neurosci* 22: 4955-4963, 2002

Evans J, Sumners C, Moore J, Huentelman MJ, Deng J, Gelband CH, Shaw G: Characterization of mitotic neurons derived from adult rat hypothalamus and brain stem. *J Neurophysiol* 87:1076-1085, 2002

**THIS REAGENT IS FOR RESEARCH ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.**

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