

Product Datasheet

alpha-Internexin Antibody

NB300-139

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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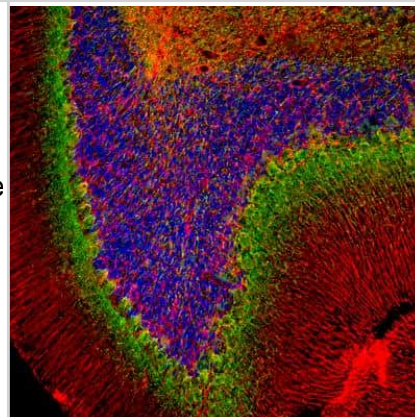
NB300-139

alpha-Internexin Antibody

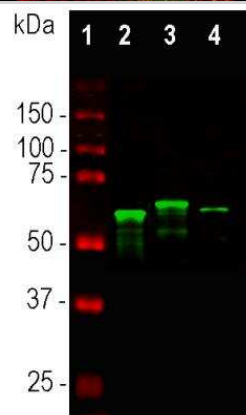
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.035% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Supplied as serum
Target Molecular Weight	66 kDa
Product Description	
Description	Novus Biologicals Rabbit alpha-Internexin Antibody (NB300-139) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-alpha-Internexin Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	9118
Gene Symbol	INA
Species	Human, Mouse, Rat, Porcine, Bovine, Equine
Marker	Immature Neuronal Marker
Immunogen	Purified recombinant rat alpha internexin expressed in and purified from E. coli. [UniProt# P23565]
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:10000 - 1:20000, Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 1:500 - 1:1000, Immunoprecipitation
Application Notes	This alpha Internexin antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry, and Western blot, where a band is observed ~ 66kDa. Use in IP was reported in the scientific literature (PMID: 23802559).

Images

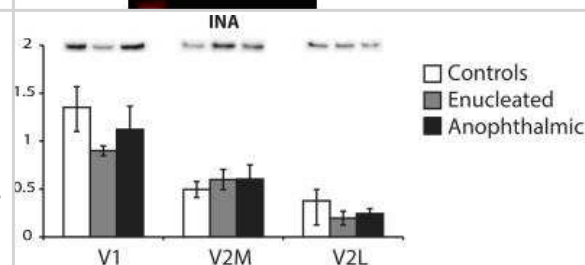
Immunohistochemistry: alpha-Internexin Antibody [NB300-139] - Rat cerebellum section stained with rabbit pAb to alpha-internexin, dilution 1:2,000, in green, and chicken pAb to GFAP, dilution 1:5,000, in red. Blue is DAPI staining of nuclear DNA. Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45uM, and free-floating sections were stained with above antibodies. The alpha-internexin antibody selectively stains axons and dendrites of neuronal cells, in particular Purkinje cells and parallel fibers the axons of granule cells. The GFAP antibody labels network of glial cells, such as astrocytes in the granule cell layer and white matter and Bergmann glia in the molecular layer.



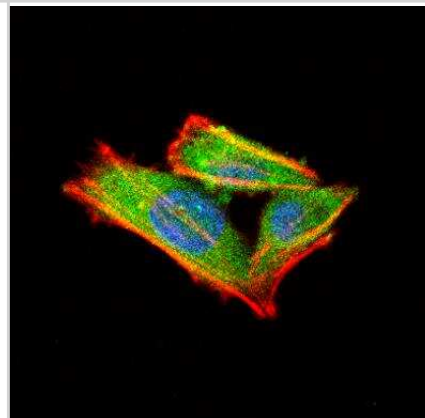
Western Blot: alpha-Internexin Antibody [NB300-139] - Whole tissue lysates using rabbit pAb to alpha-internexin, dilution 1:10,000 in green: [1] protein standard (red), [2] mouse spinal cord, [3] rat spinal cord, [4] bovine spinal cord. Major bands in the 64-66 kDa range corresponds to alpha-internexin. The alpha-internexin protein from different species is known to vary slightly in SDS-PAGE molecular weight.



Western Blot: alpha-Internexin Antibody [NB300-139] - The expression of a-internexin (INA) was analyzed by Western blotting. White bars are controls, grey bars are enucleated and black bars are anophthalmic mice. Results from V1 (left), V2M (middle) and V2L (right) are shown. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0159320>) licensed under a CC-BY license.



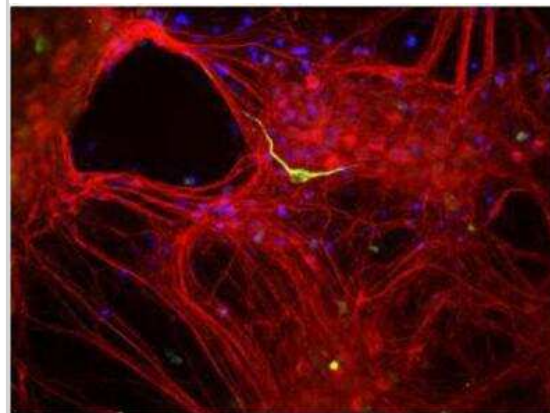
Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody [NB300-139] - IF Confocal analysis of SHSY5Y cells using alpha Internexin antibody (NB300-139, 1:5). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



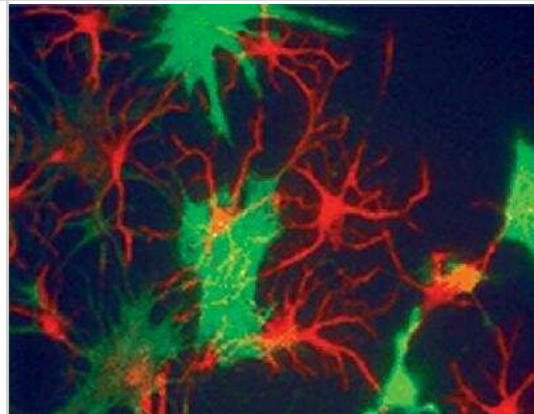
Western Blot: alpha Internexin Antibody [NB300-139] - Western blot of whole rat spinal cord homogenate stained with RPCA-a-Int, at dilution of 1:20,000. A prominent band running at ~66kDa is apparent, as well as smaller lower bands which are apparently degradation products. A minor band at ~150kDa is also seen, apparently resulting from dimerization of alpha-internexin.

66kDa >

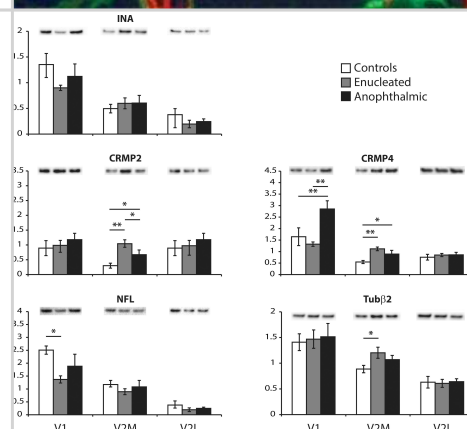
Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody [NB300-139] - Mixed neuron-glia cultures stained with rabbit antibody to alpha-internexin (red) and chicken antibody to peripherin CPCA-Peri (green). The alpha internexin antibody stains numerous axonal and dendritic profiles in these cultures, while peripherin antibody binds to only a subset of neurons.



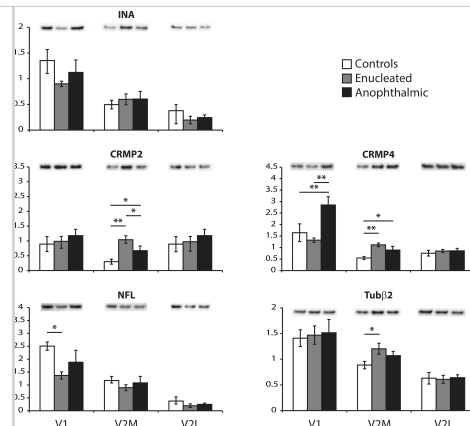
Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody [NB300-139] - Polyclonal alpha internexin, NB 300-139 (red) staining neuronal progenitor cells. The green stain shows the fibroblast marker, Plectin (not one of our antibodies).



Proteins involved in morphogenesis. The expression of alpha-internexin (INA), collapsing response mediator protein 2 (CRMP2) and 4 (CRMP4), neurofilament-low (NFL) and tubulin-beta2 (Tub β 2) were analyzed by Western blotting. White bars are controls, grey bars are enucleated and black bars are anophthalmic mice. Results from V1 (left), V2M (middle) and V2L (right) are shown for each protein. * P < 0.05 and ** P < 0.01.



Western Blot: alpha-Internexin Antibody [NB300-139] - Proteins involved in morphogenesis. The expression of α -internexin (INA), collapsing response mediator protein 2 (CRMP2) & 4 (CRMP4), neurofilament-light (NFL) & tubulin- β 2 (Tub β 2) were analyzed by Western blotting. White bars are controls, grey bars are enucleated & black bars are anophthalmic mice. Results from V1 (left), V2M (middle) & V2L (right) are shown for each protein. * $P < 0.05$ & ** $P < 0.01$. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27410964>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Huynh DT, Hu J, Schneider JR et al. O-GlcNAcylation regulates neurofilament-light assembly and function and is perturbed by Charcot-Marie-Tooth disease mutations bioRxiv : the preprint server for biology 2023-02-22 [PMID: 36865196]

Atkinson R, Leung J, Bender J, et al. TDP-43 mislocalization drives neurofilament changes in a novel model of TDP-43 proteinopathy Disease models & mechanisms 2021-01-06 [PMID: 33408125] (IF/IHC, Mouse)

Laramie ME, Smolders K, Hu TT et al. Congenital Anophthalmia and Binocular Neonatal Enucleation Differently Affect the Proteome of Primary and Secondary Visual Cortices in Mice. PLoS One 2016-07-13 [PMID: 27410964] (WB)

Ganns D, Schrod F, Neuhuber W, Brehmer A. Investigation of general and cytoskeletal markers to estimate numbers and proportions of neurons in the human intestine. Histol Histopathol 2006-01-01 [PMID: 16267786] (Human)

King AE, Dickson TC, Blizzard CA et al. Excitotoxicity mediated by non-NMDA receptors causes distal axonopathy in long-term cultured spinal motor neurons. Eur J Neurosci. 2007-10-01 [PMID: 17908171] (WB, ICC/IF, Rat)

Blizzard CA, King AE, Vickers J, Dickson T. Cortical murine neurons lacking the neurofilament light chain protein have an attenuated response to injury in vitro. J Neurotrauma 2013-06-26 [PMID: 23802559] (IP, Mouse)

Liu Y, Staal JA, Canty AJ et al. Cytoskeletal changes during development and aging in the cortex of neurofilament light protein knockout mice. J Comp Neurol 2013-06-01 [PMID: 23172043] (IF/IHC, ICC/IF, WB, Mouse)

King AE, Dickson TC, Blizzard CA et al. Neuron-glia interactions underlie ALS-like axonal cytoskeletal pathology Neurobiol Aging 2011-03-01 [PMID: 19427060] (IF/IHC, ICC/IF, Mouse)

King AE, Blizzard CA, Southam KA, Vickers JC, Dickson TC. Degeneration of axons in spinal white matter in G93A mSOD1 mouse characterized by NFL and alpha-internexin immunoreactivity. Brain Res. 2012-05-17 [PMID: 22609817] (IF/IHC, ICC/IF, Mouse)

Blizzard CA, Chuckowree JA, King AE et al. Focal Damage to the Adult Rat Neocortex Induces Wound Healing Accompanied by Axonal Sprouting and Dendritic Structural Plasticity. Cereb Cortex. 2010-05-28 [PMID: 20511339] (IF/IHC, Rat)



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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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