

## ARG52221 anti-NF66 / alpha Internexin antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Chicken Polyclonal antibody recognizes NF66 / alpha Internexin
Tested Reactivity	Hu, Ms, Rat, Cow, Mamm, Pig
Tested Application	ICC/IF, IHC-Fr, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	NF66 / alpha Internexin
Species	Rat
Immunogen	Recombinant rat alpha-internexin expressed in and purified from E. coli
Conjugation	Un-conjugated
Alternate Names	Neurofilament 5; Neurofilament-66; Alpha-Inx; NEF5; NF-66; Alpha-internexin; 66 kDa neurofilament protein; TXBP-1

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:500 - 1:1000
	IHC-Fr	1:500 - 1:1000
	WB	1:5000 - 1:10000
Application Note	<p>Specific for the ~66k alpha Internexin protein. Minor bands at ~150k are probably covalent dimers and bands at ~50k represent alpha-internexin breakdown products.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	
Observed Size	~ 62 kDa	

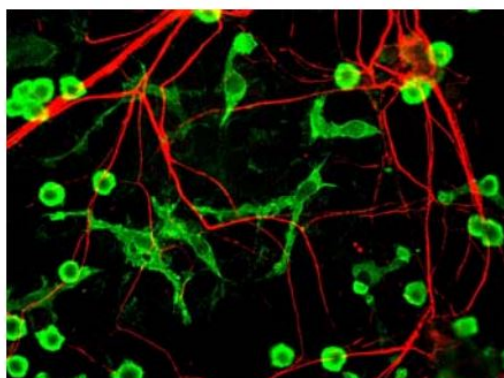
### Properties

Form	Liquid
Purification	Total IgY fraction
Buffer	Total IgY fraction in PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

## Bioinformation

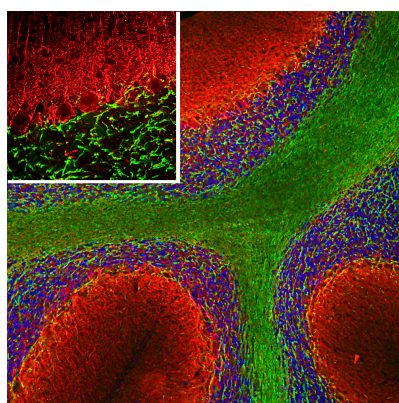
Gene Symbol	INA
Gene Full Name	internexin neuronal intermediate filament protein, alpha
Background	Alpha-internexin is a Class IV intermediate filament originally discovered as it co-purifies with other neurofilament subunits. Alpha-internexin is related to but distinct from the better known neurofilament triplet proteins, NF-L, NF-M and NF-H, having similar protein sequence motifs and a similar intron organization. It is expressed only in neurons and 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 NF-L, NF-M and NF-H. In some mature neurons alpha-internexin is the only neurofilament subunit expressed. Antibodies to alpha-internexin are therefore unique probes to study and classify neuronal types and follow their processes in sections and in tissue culture. In addition, recent studies show a marked up-regulation of alpha-internexin during neuronal regeneration. The use of antibodies to this protein in the study of brain tumors has not been examined to date, but is likely to be of interest. Recently Cairns et al. used this antibody to show that alpha-internexin is an abundant component of the inclusions of neurofilament inclusion body disease (NFID), a serious human neurodegenerative disorder. The antibody was also used to confirm the presence of circulating auto-antibodies to alpha-internexin in the sera of some patients with endocrine autoimmunity, as well as in some normal individuals.
Research Area	Neuroscience antibody
Calculated Mw	55 kDa
PTM	O-glycosylated.

## Images



ARG52221 anti-NF66 / alpha Internexin antibody ICC/IF image

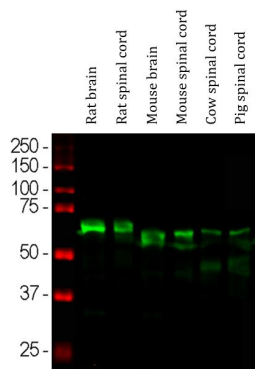
Immunofluorescence: Cultured neurons and glia showing specific labeling of neuronal processes (red) using ARG52221 anti-NF66 / alpha Internexin antibody and microglia (green) with a coronin 1a antibody.



ARG52221 anti-NF66 / alpha Internexin antibody IHC-Fr image

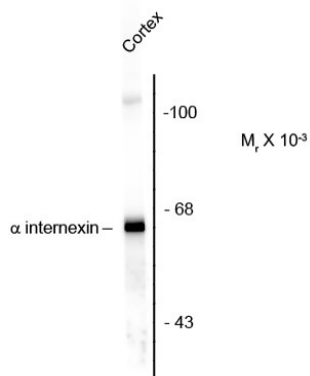
Immunohistochemistry: Frozen section of Rat cerebellum tissue stained with ARG52221 anti-NF66 / alpha Internexin antibody (red) at 1:5000 dilution, and co-stained with anti-MBP antibody (green) at 1:5000 dilution. Hoechst (blue) for nuclear staining. (Sample preparation: Following transcardial perfusion of Rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45  $\mu$ M, and free-floating sections were stained with the above antibodies.)

The alpha Internexin antibody selectively stains axons and dendrites of neuronal cells, in particular Purkinje cells, parallel fibers and the axons of granule cells, while the MBP antibody stains myelin sheaths around axons.



ARG52221 anti-NF66 / alpha Internexin antibody WB image

Western blot: Rat brain, Rat spinal cord, Mouse brain, Mouse spinal cord, Cow spinal cord and Pig spinal cord lysates stained with ARG52221 anti-NF66 / alpha Internexin antibody (green) at 1:10000 dilution.



ARG52221 anti-NF66 / alpha Internexin antibody WB image

Western blot: Rat cortex lysate showing specific immunolabeling of the ~66 kDa alpha internexin protein stained with ARG52221 anti-NF66 / alpha Internexin antibody.