

**Alpha-Internexin (NF66) Antibody**  
**Chicken polyclonal antibody**  
**Catalog # AN1138****Specification**

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**Alpha-Internexin (NF66) Antibody - Product Information**

Application	IF, WB
Primary Accession	<a href="#">P23565</a>
Reactivity	Human, Mouse, Rat
Host	chicken
Clonality	polyclonal
Calculated MW	66 KDa

**Alpha-Internexin (NF66) Antibody - Additional Information**

Gene ID	24503
Gene Name	INA

**Other Names**

Alpha-internexin, Alpha-Inx, Ina, Inexa

**Target/Specificity**

Recombinant rat alpha-internexin expressed in and purified from E. coli.

**Dilution**

IF~~ 1:500

WB~~ 1:5000

**Format**

Total IgY fraction

**Antibody Specificity**

Specific for the ~66k alpha Internexin protein. Minor bands at ~150k are probably covalent dimers and bands at ~50k represent alpha-internexin breakdown products.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Alpha-Internexin (NF66) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

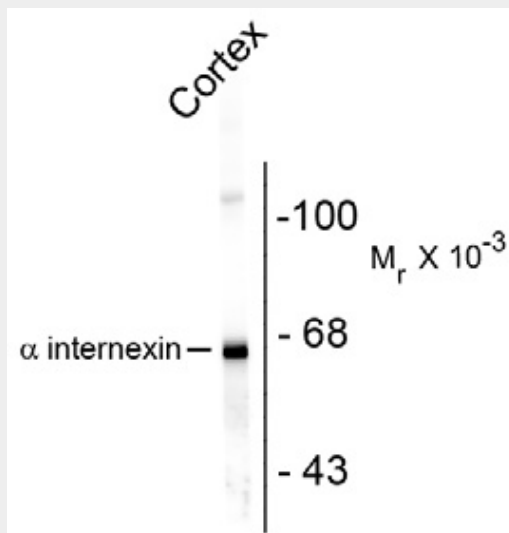
Blue Ice

**Alpha-Internexin (NF66) Antibody - Protocols**

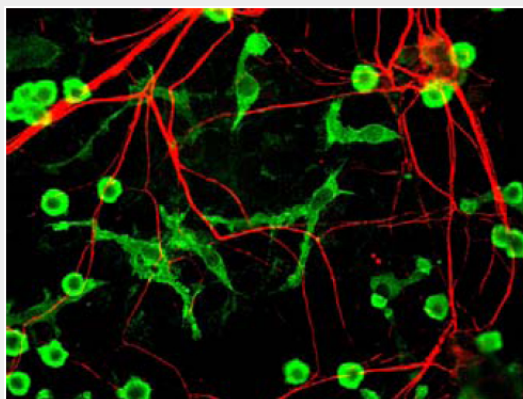
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Alpha-Internexin (NF66) Antibody - Images



Western blot of rat cortex lysate showing specific immunolabeling of the ~ 66k alpha internexin protein.



Immunostaining of cultured neurons and glia showing specific labeling of neuronal processes (red) using our alpha-internexin antibody and microglia (green) with a coronin 1a antibody.

#### Alpha-Internexin (NF66) Antibody - Background

Alpha-internexin is a Class IV intermediate filament originally discovered as it co-purifies with other neurofilament subunits (1). 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 (2). 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 (3,4). 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 (5).

#### **Alpha-Internexin (NF66) Antibody - References**

1. Pachter, J and Liem, RKH. Alpha-Internexin, a 66-kD intermediate filament-binding protein from mammalian central nervous tissues. *J Cell Biol* 101:1316-22 (1985).
2. McGraw et al. Axonally transported peripheral signals regulate alpha-internexin expression in regenerating motoneurons. *J Neurosci* 22:4955-63 (2002).
3. Cairns NJ et al. alpha-Internexin aggregates are abundant in neuronal intermediate filament inclusion disease (NIFID) but rare in other neurodegenerative diseases. *Acta Neuropathol (Berl)*. May 28 [Epub ahead of print] (2004).
4. Cairns NJ et al. alpha-internexin is present in the pathological inclusions of neuronal intermediate filament inclusion disease. *Am J Pathol*. 164:2153-61 (2004).
5. Rajasalu T, Teesalu K, Janmey PA, Uibo R. Demonstration of natural autoantibodies against the neurofilament protein alpha-internexin in sera of patients with endocrine autoimmunity and healthy individuals. *Immunol Lett*. 94:153-60 (2004).