

Product datasheet for **TA336609**

alpha Internexin (INA) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:10000-1:20000, IF: 1:500-1:1000, IHC: , IP:
Reactivity:	Human, Mouse, Rat, Mammalian
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Purified recombinant rat alpha Internexin [UniProt# P23565]
Formulation:	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Whole antisera
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	66 kDa
Gene Name:	internexin neuronal intermediate filament protein alpha
Database Link:	NP_116116 Entrez Gene 24503 Rat Entrez Gene 226180 Mouse Entrez Gene 9118 Human Q16352



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Background:

In mammalian CNS, five key neuronal intermediate filament (NIF) proteins have been discovered which includes alpha-internexin (66 kD, INA or Inexa), peripherin (57 kD), and three neurofilament (NF) proteins, which are neurofilament light (NF-L, 68 kD), medium (NF-M, 145 kD), and heavy (NF-H, 200 kD). Among NIFs, alpha-internexin is categorized as class IV NIF which is highly expressed in most neurons during development especially when they begin to differentiate and before the expression of NF triplet proteins, and it is structurally/functionally associated with NF triplet proteins inside mature CNS neurons. Peripherin is mainly expressed in PNS and in some CNS neurons also, and alpha-internexin - peripherin self-assemble or co-assemble with neurofilament protein subunits to form filamentous structure before their translocation into the axons to become an essential constituent of shape-maintaining IF network in mature neurons. It has been recognized as one of the many proteins phosphorylated by ATM/ATR in response to DNA damage and has been associated with developmental, degenerative /overexpression causes neuronal cell death, and inflammatory processes of CNS. Abnormal NIF accumulation is a neuropathological signature of several neurodegenerative diseases such as Alzheimer's disease, Parkinson's disease, dementia with Lewy bodies, and amyotrophic lateral sclerosis. Alpha-internexin has been detected as a major component of pathological inclusions in frontotemporal dementia, also called 'neuronal intermediate filament inclusion disease (NIFID).

Synonyms:

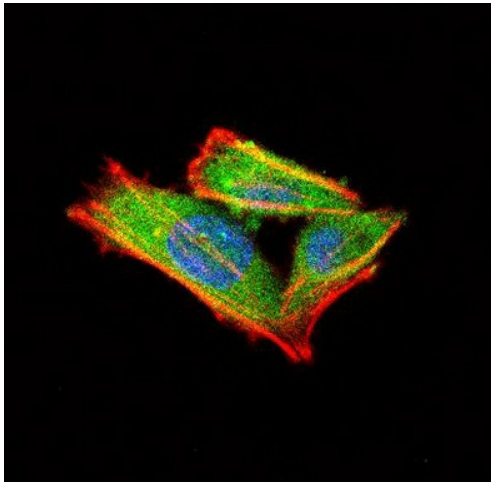
NEF5; NF-66; TXBP-1

Note:

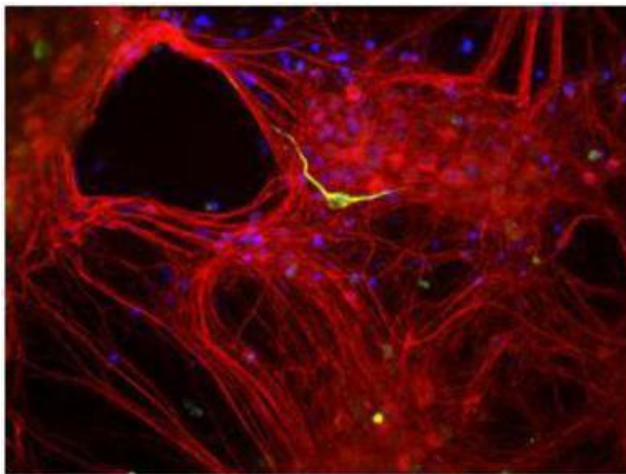
This alpha Internexin antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where a band is observed ~ 66 kDa. Immunohistochemistry was reported in scientific literature. Use in Immunoprecipitation was reported in the scientific literature (PMID: 23802559).

Product images:

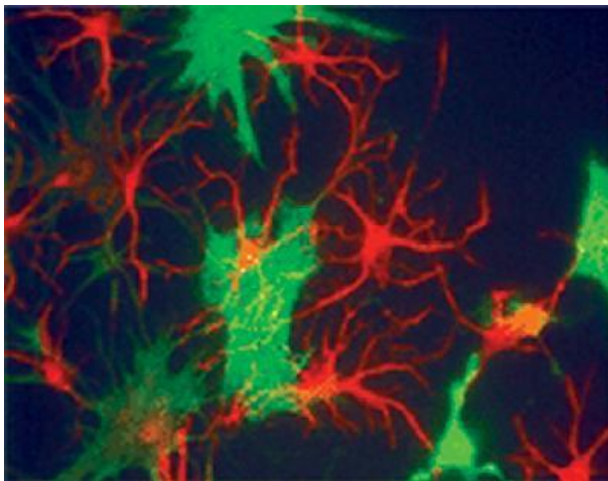
Western Blot: alpha Internexin Antibody TA336609 - Western blot of whole rat spinal cord homogenate stained with RPCA-a-Int, at dilution of 1:20,000. A prominent band running at ~66kDa is apparent, as well as smaller lower bands which are apparently deg



Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody TA336609 - IF Confocal analysis of SHSY5Y cells using alpha Internexin antibody (TA336609, 1:5). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). A



Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody TA336609 - 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 nu



Immunocytochemistry/Immunofluorescence: alpha Internexin Antibody TA336609 - Polyclonal alpha internexin, NB 300-139 (red) staining neuronal progenitor cells. The green stain shows the fibroblast marker, Plectin (not one of our antibodies).