

Product datasheet for TA336618

alpha Internexin (INA) Mouse Monoclonal Antibody [Clone ID: 1D2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1D2
Applications:	IF
Recommend Dilution:	WB: 1:10000, IHC: 1:5000, IHC-P: 1:5000
Reactivity:	Human, Mammalian, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant rat alpha Internexin [UniProt# P23565]
Formulation:	Preservative: 0.1% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	This product is unpurified. The exact concentration of antibody is not quantifiable.
Purification:	Tissue culture supernatant
Predicted Protein Size:	66 kDa
Gene Name:	internexin neuronal intermediate filament protein alpha
Database Link:	NP_116116 Entrez Gene 24503 RatEntrez Gene 226180 MouseEntrez Gene 9118 Human



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Background:

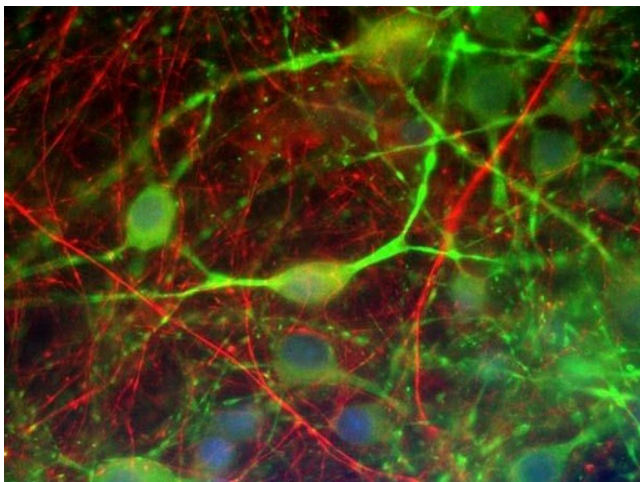
In mammalian CNS, five key neuronal intermediate filament (NIF) proteins have been discovered which includes alpha-internexin (66 kD, INA or Inexa), peripherin (57 kD), and three neurofilament (NF) proteins, which are neurofilament light (NF-L, 68 kD), medium (NF-M, 145 kD), and heavy (NF-H, 200 kD). 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 Immunohistochemistry-Paraffin and Western blot. A 66 kDa band can be seen in Western blotting.

Product images:

Immunocytochemistry/Immunofluorescence:
alpha Internexin Antibody (1D2) TA336618 -
Mixed cultures of rat CNS cells stained with
TA336618 (red) and chicken antibody to
Microtubule associated protein 2 (MAP2- green).
The a-internexin is localized primaril