

Datasheet for ABIN7043555

anti-Nerve Growth Factor antibody (AA 84-104)



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2 Images

Overview

Quantity:	25 µL
Target:	Nerve Growth Factor (NGF)
Binding Specificity:	AA 84-104
Reactivity:	Rat
Host:	Guinea Pig
Clonality:	Polyclonal
Conjugate:	This Nerve Growth Factor antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Guinea Pig Polyclonal Antibody to proNGF
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)SPRVLFSTQPPPTSSDTLDLD, corresponding to amino acid residues 84-104 of rat NGF (precursor)
Isotype:	IgG
Specificity:	Pro-domain of the NGF protein
Cross-Reactivity:	Human, Mouse, Rat
Cross-Reactivity (Details):	The antibody is specific for proNGF, it does not crossreact with proBDNF, proNT-3 or mature NGF.
Predicted Reactivity:	Mouse - identical, human - 16,21 amino acid residues identical

Product Details

Characteristics:	Guinea pig Anti-proNGF Antibody is directed against rat proNGF. Guinea pig Anti-proNGF Antibody can be used in western blot and immunohistochemistry applications. Anti-proNGF Antibody raised in guinea pig recognizes the same epitope as Anti-proNGF Antibody (ABIN7043556, ABIN7044751 and ABIN7044752) raised in rabbit. The antibody specifically reacts with proNGF and does not crossreact with proBDNF, pro or mature NGF. It has been designed to recognize proNGF from mouse, rat and human samples. Our line of guinea pig antibodies enables more flexibility with our products such as multiplex staining studies, immunoprecipitation, etc. \nRelated products for neutralizing proNGF activity: \nMouse NGF/proNGF Neutralizing Antibody can be used in indirect ELISA and neutralization assays to block the biological effects of both NGF and proNGF.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	Nerve Growth Factor (NGF)
Alternative Name:	NGF (NGF Products)
Background:	Nerve growth factor precursor,Neurotrophins are synthesized as pro-forms that can be cleaved either intracellularly to release mature, secreted ligands, or extracellularly by various proteases such as plasmin, furin, PC1/3, PC7, and PACE 4.1,2,5 The immature precursor has a prodomain of 103 amino acids, which was thought to have a role in the folding and sorting of the mature NGF into the various secretion pathways. It was recently reported that proNGF, binds p75NTR receptor preferentially over TrkA, and this selective binding of proNGF to p75NTR leads to apoptotic death of cells that express both TrkA and p75NTR. However, mature NGF binds and activates both receptors, with resulting promotion of cell survival due to the TrkA-mediated survival signal overriding p75NTR -mediated apoptotic signal.3,4 Since pro- and mature neurotrophins seem to elicit opposite functional effects, by differential interactions with Trks and p75NTR receptors, extracellular cleavage represents a new way to control the synaptic functions of neurotrophins.It was demonstrated that proNGF from injured spinal cord extracts, is active and induce apoptosis among oligodendrocytes, and apoptosis can be blocked by a proNGF-specific antibody.6 Finally, proNGF was demonstrated as the predominant form in mouse, rat, and human brain tissue, thyroid, hippocampus, thus suggesting a role for proNGF in vivo.5,7,8 Alternative names: proNGF, Nerve growth factor precursor
Gene ID:	310738

Target Details

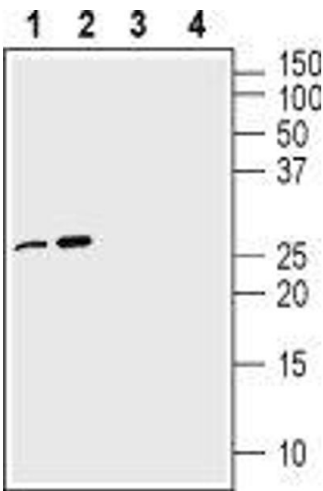
NCBI Accession:	NM_002506
UniProt:	P25427
Pathways:	Regulation of Cell Size

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400 Application Dilutions Western blot wb: 1:200
Comment:	Negative Control: (ABIN7236601) Blocking Peptide: (ABIN7236601)
Restrictions:	For Research Use only

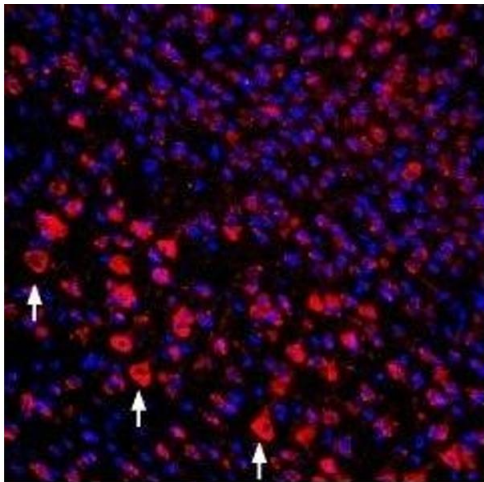
Handling

Format:	Lyophilized
Reconstitution:	Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C, -20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of 100 ng Recombinant mouse proNGF protein (#N-250) (lanes 1 and 3) and Recombinant human proNGF protein (#N-280) (lanes 2 and 4): - 1-2. Guinea pig Anti-proNGF Antibody (ABIN7043555, ABIN7045386 and ABIN7045387), (1:200).3-4. Guinea pig Anti-proNGF Antibody, preincubated with the blocking peptide.



Immunohistochemistry

Image 2. Expression of proNGF in mouse cortex - Immunohistochemical staining of perfusion-fixed mouse brain frozen sections using Guinea pig Anti-proNGF Antibody (ABIN7043555, ABIN7045386 and ABIN7045387), (1:400), followed by goat-anti-guinea pig-Cy3. proNGF staining (red) appears in the pyramidal layer (arrows). Nuclei were stained with DAPI (blue).