

Datasheet for ABIN7043341

anti-Nerve Growth Factor antibody



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2 Images

Overview

Quantity:	25 µL
Target:	Nerve Growth Factor (NGF)
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Nerve Growth Factor antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Nerve Growth Factor
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: Highly purified 2.5 S mouse NGF
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Cross-Reactivity (Details):	The antibody does not react with BDNF, NT-3, and NT-4/5.
Predicted Reactivity:	Rat- 115,120 amino acid residues identical, human- 107
Characteristics:	Anti-NGF Antibody is directed against mouse NGF. Anti-NGF Antibody (ABIN7043341, ABIN7044627 and ABIN7044628) can be used in western blot and immunohistochemical applications. It has been designed to recognize NGF from mouse, rat and human samples. The antibody also recognizes proNGF. \nRelated products for neutralizing NGF activity: \nMouse NGF/proNGF Neutralizing Antibody can be used in indirect ELISA and neutralization assays to

Product Details

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, The neurotrophins ("neuro" means nerve and "trophe" means nutrient) are a family of soluble, basic growth factors which regulate neuronal development, maintenance, survival and death in the CNS and the PNS.1 NGF, the first member of the family to be discovered, was originally purified as a factor able to support survival of sympathetic and sensory spinal neurons in culture.2 It is synthesized and secreted by sympathetic and sensory target organs and provides trophic support to neurons as they reach their final target.3 Neurotrophin secretion also increases in the nervous system following injury. Schwann cells, fibroblasts, and activated mast cells normally synthesize NGF constitutively, however direct trauma and induced cytokines combine to increase neurotrophin production in these cells after injury.4 NGF is purified in three forms: the 7S, 2.5S and β . The 7S, 130 kDa, form occurs naturally in mouse submaxillary glands, and is a multimeric protein composed of two α , one β and two γ subunits. The name is derived from its sedimentation co-efficient, 7S. The biologically active subunit is the β , which is a 26 kDa dimer composed of two identical 120 amino acid chains held together by hydrophobic interactions.5 The 2.5S form is 9 amino acids shorter than the β form, because of proteolysis that occurs during the purification process.6 The structural hallmark of all the neurotrophins is the characteristic arrangement of the disulfide bridges known as the cysteine knot, which has been found in other growth factors such as PDGF.7 There is a 95.8 % homology between the rat and mouse forms, and a 85 % homology between the human and mouse. NGF has been shown to regulate neuronal survival, development function and plasticity.8 Recently, involvement of NGF in processes not involving neuronal cells has been shown, such as asthma,9 psoriasis10 and wound healing.11 The biological effects of NGF are mediated by two receptors: TrkA, which is specific for NGF, and p75, which binds all the neurotrophins.12

Alternative names: NGF, Nerve growth factor

Gene ID: 18049

NCBI Accession: [NM_002506](#)

Target Details

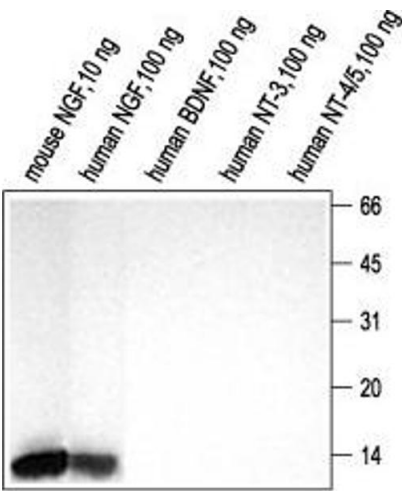
UniProt:	P01139
Pathways:	Regulation of Cell Size

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IP IHC Negative Control: (ABIN7235998) Blocking Peptide: (ABIN7235998)
Restrictions:	For Research Use only

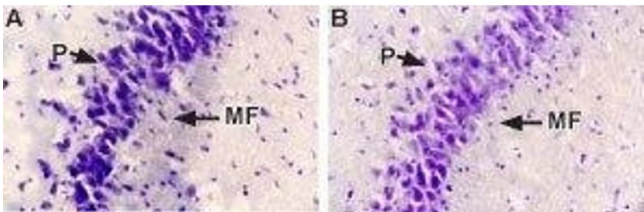
Handling

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 using Anti-NGF Antibody (ABIN7044627) (1:200).



Immunohistochemistry

Image 2. Expression of NGF in rat brain - Immunohistochemical staining of rat hippocampal mossy fiber terminal zone using Anti-NGF Antibody (#AN-240). A. The mossy fiber terminal zone (MF) is seen as the gray area (arrow) adjacent to the pyramidal layer (P). The pyramidal layer is visualized using cresyl violet (purple-labeled cells). B. The antibody was pre-incubated with the immunogen. The lack of staining in the MF zone (arrow) demonstrates specificity.