

Anti-NGF/NGF Beta Picoband Antibody
Catalog # ABO10060**Specification**

Anti-NGF/NGF Beta Picoband Antibody - Product Information

Application	WB
Primary Accession	P01138
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Beta-nerve growth factor(NGF) detection. Tested with WB, ELISA in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NGF/NGF Beta Picoband Antibody - Additional Information

Gene ID 4803

Other Names

Beta-nerve growth factor, Beta-NGF, NGF, NGFB

Calculated MW

26959 MW KDa

Application Details

ELISA , 0.1-0.5 µg/ml, Human, -
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Secreted.

Protein Name

Beta-nerve growth factor

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E. coli-derived human NGF/NGF Beta recombinant protein (Position: S122-A241). Human NGF/NGF Beta shares 92.4% amino acid (aa) sequence identity with rat NGF/NGF Beta.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-NGF/NGF Beta Picoband Antibody - Protein Information**Name** NGF**Synonyms** NGFB**Function**

Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems (PubMed: [14976160](http://www.uniprot.org/citations/14976160), PubMed: [20978020](http://www.uniprot.org/citations/20978020)). Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (Probable) (PubMed: [20978020](http://www.uniprot.org/citations/20978020)). The immature NGF precursor (proNGF) functions as a ligand for the heterodimeric receptor formed by SORCS2 and NGFR, and activates cellular signaling cascades that lead to inactivation of RAC1 and/or RAC2, reorganization of the actin cytoskeleton and neuronal growth cone collapse. In contrast to mature NGF, the precursor form (proNGF) promotes neuronal apoptosis (in vitro) (By similarity). Inhibits metalloproteinase-dependent proteolysis of platelet glycoprotein VI (PubMed: [20164177](http://www.uniprot.org/citations/20164177)). Binds lysophosphatidylinositol and lysophosphatidylserine between the two chains of the homodimer. The lipid-bound form promotes histamine release from mast cells, contrary to the lipid-free form (By similarity).

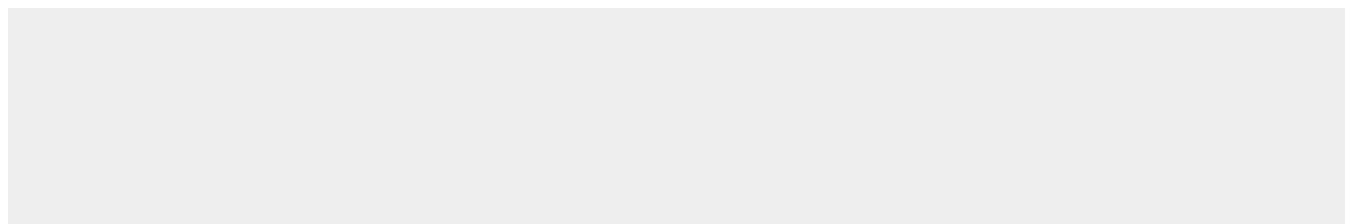
Cellular Location

Secreted. Endosome lumen {ECO:0000250|UniProtKB:P01139}. Note=ProNGF is endocytosed after binding to the cell surface receptor formed by SORT1 and NGFR {ECO:0000250|UniProtKB:P01139}

Anti-NGF/NGF Beta Picoband 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](#)

Anti-NGF/NGF Beta Picoband Antibody - Images

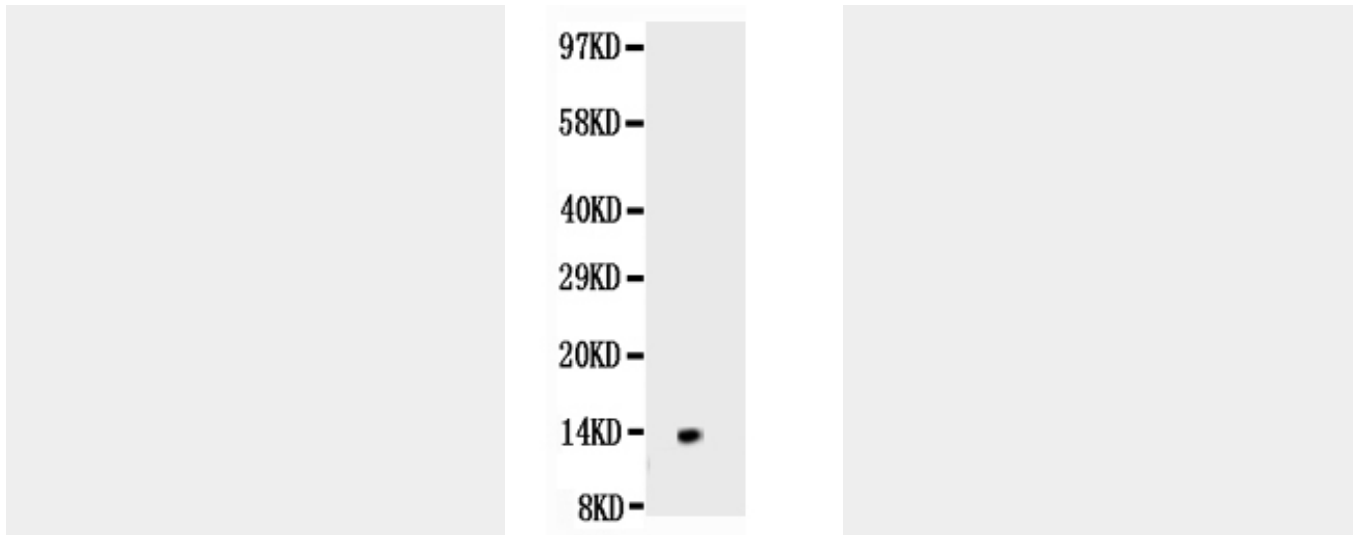


Figure 1. Western blot analysis of NGF/NGF Beta using anti-NGF/NGF Beta antibody (ABO10060). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Recombinant Human NGF/NGF Beta Protein 0.5ng After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NGF/NGF Beta antigen affinity purified polyclonal antibody (Catalog # ABO10060) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for NGF/NGF Beta at approximately 13KD. The expected band size for NGF/NGF Beta is at 13KD.

Anti-NGF/NGF Beta Picoband Antibody - Background

Nerve growth factor is a polypeptide involved in the regulation of growth and differentiation of sympathetic and certain sensory neurons. The nucleotide sequence of human and mouse beta-NGF are very similar. The beta-subunits of nerve growth factor (NGFB) have been assigned to mouse chromosome 3 and human chromosome 1p22. The human gene for the beta subunit of nerve growth factor is located on the proximal short arm of chromosome 1. A mutation in the nerve growth factor beta gene (NGFB) causes loss of pain perception.