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Anti-NGF/NGF Beta Picoband Antibody

Catalog # ABO10060

Product Information

Application	WB, E
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.

Additional Information

Gene ID	4803
Other Names	Beta-nerve growth factor, Beta-NGF, NGF, NGFB
Calculated MW	26959
Application Details	ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Beta-nerve growth factor
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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 r˚Constitution, 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.

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, PubMed:20978020). Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (Probable) (PubMed: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). Binds lysophosphatidylinositol and lysophosphatidylserine between the two chains of the homodimer. The lipid-bound form promotes histamine relase 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}

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.

Images

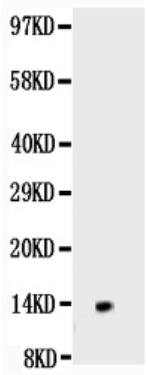


Figure 1. Western blot analysis of NGF/NGF Beta using anti-NGF/NGF Beta antibody (ABO10060). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Recombinant Human NGF/NGF Beta Protein 0.5ng After Electrophoresis, proteins were transferred 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 □¼g/mL overnight at 4 □°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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.