

# Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody

Catalog # ABO13233

#### Specification

# Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody - Product Information

Application WB, IHC, IF, ICC **Primary Accession** P01138 Rabbit Host Isotype **Rabbit IgG** Reactivity Rat, Human, Mouse Clonality Monoclonal Format Liquid Description Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

# Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody - Additional Information

Gene ID 4803

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

Calculated MW 26959 MW KDa

Application Details WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200

Subcellular Localization Secreted.

**Contents** Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen A synthesized peptide derived from human NGF

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

#### Anti-NGF/Beta Ngf Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/14976160" target="\_blank">14976160</a>, PubMed:<a href="http://www.uniprot.org/citations/20978020" target="\_blank">20978020</a>). Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (Probable) (PubMed:<a href="http://www.uniprot.org/citations/20978020" target="\_blank">20978020</a>). 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:<a href="http://www.uniprot.org/citations/20164177" target="\_blank">20164177</a>). 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}

### Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-NGF/Beta Ngf Rabbit Monoclonal Antibody - Images





All lanes use the Antibody at 1:500 dilution for 1 hour at room temperature.



Western blot analysis of NGF expression in (1)Mouse thyroid lysate;(2) HeLa cell lysate.



Immunohistochemical analysis of paraffin-embedded human kidney, using NGF Antibody.





Immunofluorescent analysis of SH-SY5Y cells, using NGF Antibody.



Immunofluorescent analysis using the Antibody at 1:50 dilution.



Immunofluorescent analysis using the Antibody at 1:150 dilution.





Figure 1. Western blot analysis of NGF using anti-NGF antibody (M00341).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 antigen affinity purified monoclonal antibody (Catalog # M00341) at 1:500 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 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NGF at approximately 35 kDa. The expected band size for NGF is at 27 kDa.