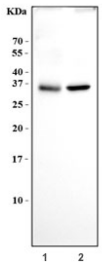
# NGFB Antibody / Neurotrophin Survival Factor Antibody (RQ6782)

| Catalog No. | Formulation | Size |
|---|---|---|
| RQ6782 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P01138 |
| **Applications** | Western blot: 1-2ug/ml<br>Direct ELISA: 0.1-0.5ug/ml |
| **Limitations** | This NGFB Antibody / Neurotrophin Survival Factor Antibody is available for research use only. |




NGFB Antibody Cell Lysate WB. Western blot analysis of human U-87 MG and PC-3 cell lysates using NGFB Antibody / Neurotrophin Survival Factor Antibody. Lane 1: U-87 MG cell lysate, Lane 2: PC-3 cell lysate. Prominent bands are detected near 30-35 kDa, slightly above the predicted molecular weight of mature NGFB / Nerve growth factor beta dimer-associated forms at approximately 27 kDa. The observed migration pattern is consistent with processed neurotrophin expression and may reflect differential post-translational modification or precursor-associated NGF species in human tumor cell lines.

## Description

Nerve growth factor beta (NGFB) is a secreted neurotrophin encoded by the NGF gene that regulates neuronal survival, axonal extension, synaptic plasticity, and peripheral nervous system maintenance. NGFB Antibody / Neurotrophin Survival Factor Antibody is useful for investigating mature neurotrophin signaling pathways associated with neuronal differentiation, tissue repair, and neuroimmune communication. NGFB antibody, also referred to as Nerve growth factor beta antibody, Beta NGF antibody, NGF beta antibody, or Mature NGF antibody in the literature, recognizes the

biologically active neurotrophin form responsible for canonical TrkA receptor activation and downstream neuronal survival signaling. This rabbit polyclonal antibody supports research applications focused on neurotrophin processing, secretion, and mature NGF-associated signaling biology.

NGFB is generated through proteolytic processing of the precursor molecule proNGF. Mature NGFB preferentially binds the high-affinity TrkA receptor, activating signaling pathways including MAPK/ERK, PI3K-AKT, and PLC-gamma cascades that regulate neuronal maintenance, neurite outgrowth, and cellular survival. In contrast, precursor proNGF forms may participate in p75NTR-associated apoptotic signaling under selected physiologic and pathologic conditions. Because mature and precursor NGF forms possess distinct biological activities, NGFB-directed antibodies are valuable tools for examining neurotrophin maturation and signaling balance across developmental and disease-associated systems.

NGFB expression has been identified in neurons, peripheral nerve fibers, epithelial tissues, endocrine-associated cells, stromal compartments, and inflammatory microenvironments. Increased NGF signaling commonly occurs following tissue injury, chronic inflammation, wound healing, oxidative stress, and peripheral nerve regeneration. Elevated neurotrophin activity contributes to nociceptor sensitization and chronic pain biology through enhanced neuroimmune interactions involving mast cells, macrophages, lymphocytes, and sensory neurons. NGFB additionally participates in adaptive neuronal responses associated with tissue remodeling and injury recovery.

In oncology research, NGF-TrkA signaling has been associated with tumor cell survival, angiogenesis, neural invasion, and tumor microenvironment remodeling in several malignancies including pancreatic cancer, prostate cancer, breast cancer, and neural crest-derived tumors. NGFB signaling has also been explored in neurodegenerative disease studies involving Alzheimer's disease, Parkinsonian syndromes, diabetic neuropathy, and spinal cord injury. Because NGFB represents the mature signaling form of Nerve growth factor responsible for canonical neurotrophin receptor activation, antibodies targeting this pathway are widely used in neuroscience and regenerative medicine investigations.

At the cellular level, NGFB is primarily localized within cytoplasmic secretory vesicles and intracellular trafficking compartments associated with peptide processing and extracellular release. Immunofluorescence studies frequently demonstrate punctate cytoplasmic staining patterns consistent with secretory pathway localization. In tissue sections, NGFB expression may be detected in neuronal cell bodies, peripheral nerve-associated structures, epithelial compartments, glandular tissues, and injury-responsive stromal cells depending on tissue context and physiologic state. This rabbit polyclonal NGFB antibody provides a useful approach for studying mature neurotrophin biology and neuronal survival signaling mechanisms across diverse experimental systems.

Our NGF Antibody / Neurotrophin Signaling Marker Antibody page highlights clone BDE-14 for detection of Nerve growth factor expression in neuronal signaling, neurodevelopment, tissue repair, and neurodegeneration research applications.

## Application Notes

Optimal dilution of the NGFB Antibody / Neurotrophin Survival Factor Antibody should be determined by the researcher.

## Immunogen

Recombinant human protein (amino acids S122-D186) was used as the immunogen for the NGFB antibody.

## Storage

After reconstitution, the NGFB antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

## Alternate Names

Nerve growth factor beta antibody, Beta NGF antibody, NGF beta antibody, Mature NGF antibody, Beta-nerve growth factor antibody

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