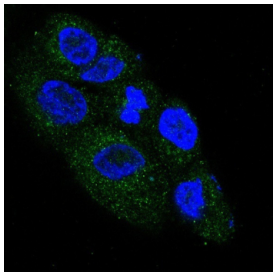
NGF Antibody / Neurotrophin Signaling Marker Antibody [clone BDE-14] (RQ4871)

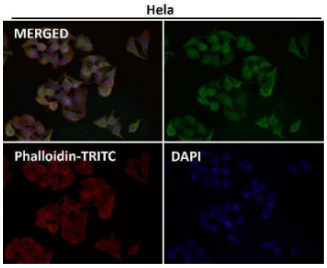
Catalog No.	Formulation	Size
RQ4871	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

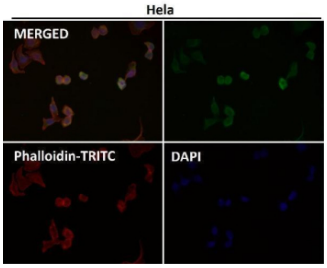
Availability	1-2 weeks
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	BDE-14
Purity	Affinity purified
UniProt	P01138
Localization	Secreted
Applications	Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:50-1:200 Immunofluorescence: 1-50-1:200
Limitations	This NGF Antibody / Neurotrophin Signaling Marker Antibody is available for research use only.



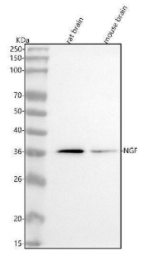
NGF Antibody SH-SY5Y IF. Immunofluorescence analysis of human SH-SY5Y neuroblastoma cells using recombinant rabbit monoclonal clone BDE-14. NGF / Nerve growth factor staining (green) shows punctate cytoplasmic and perinuclear localization consistent with intracellular neurotrophin processing and secretory vesicle distribution, while nuclei are counterstained with DAPI (blue). The staining pattern aligns with the neuronal-associated biology of SH-SY5Y cells commonly used in neurodevelopment and neurodegeneration research.



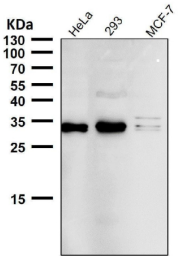
NGF Antibody HeLa IF. Immunofluorescence analysis of human HeLa cells using recombinant rabbit monoclonal clone BDE-14 at 1:50 dilution. NGF / Nerve growth factor staining (green) demonstrates diffuse and punctate cytoplasmic localization consistent with intracellular neurotrophin-associated signaling and secretory pathway distribution. Phalloidin-TRITC actin cytoskeleton stain is shown in red and DAPI nuclear counterstain is shown in blue. Merged imaging highlights NGF expression patterns in cultured cervical carcinoma cells.



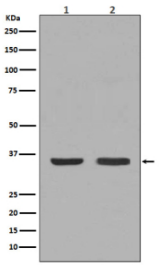
NGF Antibody Human HeLa Cell IF. Immunofluorescence analysis of human HeLa cells using recombinant rabbit monoclonal clone BDE-14 at 1:150 dilution. NGF / Nerve growth factor staining (green) demonstrates preserved cytoplasmic localization with lower overall signal intensity compared to higher antibody concentration testing, while maintaining distinct intracellular neurotrophin-associated staining patterns. Phalloidin-TRITC actin cytoskeleton stain is shown in red and DAPI nuclear counterstain is shown in blue. Merged imaging supports specific NGF detection in cultured cervical carcinoma cells under reduced antibody concentration conditions.



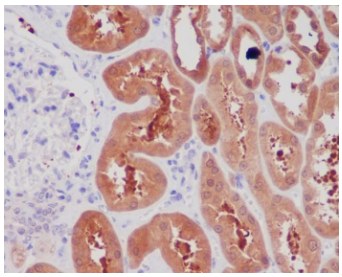
NGF Antibody Brain Tissue WB. Western blot analysis of rat brain and mouse brain tissue lysates using recombinant rabbit monoclonal NGF antibody clone BDE-14. Lane 1: rat brain tissue lysate, Lane 2: mouse brain tissue lysate. A band is detected at approximately 35 kDa, above the predicted molecular weight of mature NGF, which is commonly reported near 27 kDa depending on precursor processing, dimerization state, and post-translational modification. The observed signal is consistent with the complex biology of Nerve growth factor, including proNGF-associated forms and neurotrophin processing intermediates present in neural tissue.



NGF Antibody Cell Lysate WB. Western blot analysis of human HeLa, 293, and MCF-7 cell lysates using recombinant rabbit monoclonal clone BDE-14 at 1:500 dilution for 1 hour at room temperature. Lane 1: HeLa cell lysate, Lane 2: 293 cell lysate, Lane 3: MCF-7 cell lysate. Prominent bands are detected near 30-35 kDa, consistent with reported NGF / Nerve growth factor precursor-associated and processed neurotrophin forms. Additional higher molecular weight signal in 293 cells and multiple bands in MCF-7 cells may reflect differential precursor processing, post-translational modification, or cell type-specific neurotrophin-associated protein complexes.



NGF Antibody WB. Western blot testing of 1) mouse thyroid and 2) human HeLa lysate with NGF Antibody / Neurotrophin Signaling Marker Antibody. Predicted molecular weight ~27 kDa (dimer).



NGF Antibody Kidney IHC. Immunohistochemistry staining of FFPE human kidney tissue with NGF Antibody / Neurotrophin Signaling Marker Antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.

Description

Nerve growth factor (NGF) is a secreted neurotrophin encoded by the NGF gene that plays a central role in neuronal survival, differentiation, axonal growth, and synaptic plasticity within the peripheral and central nervous systems. NGF Antibody / Neurotrophin Signaling Marker Antibody is useful for studying neurotrophin-mediated signaling pathways involved in neural development, nociception, neuroinflammation, and neurodegenerative disease. NGF antibody, also known as Nerve growth factor antibody or Beta nerve growth factor antibody in the literature, recognizes one of the founding members of the neurotrophin family that signals primarily through the high-affinity receptor TrkA (NTRK1) and the low-affinity neurotrophin receptor p75NTR (NGFR). Clone BDE-14 antibody is designed to support investigation of NGF expression in neuronal, epithelial, endocrine, and injury-associated tissue environments.

NGF is synthesized as a precursor protein known as proNGF, which undergoes proteolytic processing to generate mature NGF. Both precursor and mature forms possess biologically important but distinct signaling properties. Mature NGF preferentially activates TrkA-mediated pathways associated with neuronal survival and neurite extension, whereas proNGF may participate in apoptosis-associated signaling through p75NTR-containing receptor complexes. This dual biology has made NGF an important research target in studies of neurodevelopment, chronic pain, peripheral nerve regeneration, spinal cord injury, and neurodegenerative disorders including Alzheimer's disease and Parkinsonian syndromes. NGF signaling additionally contributes to inflammatory crosstalk between neurons and immune cells, particularly in chronic inflammatory and neuropathic conditions.

NGF expression has been documented in neurons, Schwann cells, keratinocytes, fibroblasts, smooth muscle cells, epithelial tissues, and multiple endocrine-associated cell populations. Increased NGF production is frequently observed following tissue injury, inflammation, oxidative stress, and ischemic insult. In cancer biology, NGF and TrkA pathway activation have been associated with tumor cell survival, perineural invasion, angiogenic signaling, and tumor microenvironment remodeling in selected malignancies. NGF pathway dysregulation has also been explored in prostate cancer, pancreatic cancer, breast cancer, and neural crest-derived tumors. Because NGF functions as both a neurotrophic factor and a broader cellular stress-response mediator, NGF antibody reagents are widely utilized in neuroscience, cancer biology, regeneration research, and neuroimmunology applications.

At the cellular level, NGF is primarily localized within the secretory pathway and is commonly detected in cytoplasmic vesicular compartments associated with peptide processing and secretion. Immunofluorescence studies frequently demonstrate punctate cytoplasmic staining patterns consistent with secretory granule localization. In tissue sections, NGF expression may be observed in neuronal cell bodies, peripheral nerve fibers, epithelial structures, glandular tissues, and injury-responsive stromal cells depending on physiologic or disease context. NGF additionally participates in signaling cascades involving MAPK/ERK, PI3K-AKT, PLC-gamma, and NF-kappaB pathway activation downstream of TrkA receptor engagement.

The recombinant rabbit monoclonal clone BDE-14 provides a highly specific approach for detecting NGF protein expression in neurobiology and tissue signaling studies. Recombinant monoclonal antibodies are commonly selected for their lot-to-lot consistency and stable binding characteristics, particularly in long-term translational research programs. NGF remains one of the most extensively studied neurotrophic factors because of its broad influence on neuronal maintenance, sensory signaling, tissue repair responses, and neuroimmune communication.

Related neuroscience antibody products for neural development, neurodegeneration, and synaptic signaling research are available in our Neuroscience Antibodies collection.

Application Notes

Optimal dilution of the NGF Antibody / Neurotrophin Signaling Marker Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human NGF / Beta Nerve Growth Factor was used as the immunogen for the NGF antibody.

Storage

Store the NGF antibody at -20oC.

Alternate Names

Nerve growth factor antibody, Beta nerve growth factor antibody, NGF beta antibody, Neurotrophin antibody, NGFB antibody

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