

Datasheet for ABIN5518858

anti-Nerve Growth Factor antibody (AA 122-241)



[Go to Product page](#)

1 Image

6 Publications

Overview

Quantity:	100 µg
Target:	Nerve Growth Factor (NGF)
Binding Specificity:	AA 122-241
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Nerve Growth Factor antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Anti-NGF/NGF Beta Antibody Picoband®
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-NGF/NGF Beta Antibody Picoband® (ABIN5518858). Tested in ELISA, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	Nerve Growth Factor (NGF)
Alternative Name:	NGF (NGF Products)
Background:	Synonyms: Beta-nerve growth factor,Beta-NGF,NGF,NGFB, Tissue Specificity: Expressed in thymus, peripheral leukocytes as T-cells and spleen. Isoforms A are preferentially expressed in effector T-cells (thymus and peripheral leukocytes) whereas isoforms B and isoforms C are preferentially expressed in naive T-cells (spleen). Isoforms B are expressed in naive T-cells after first antigen exposure and isoforms A are expressed in effector T-cells after second antigen exposure. Isoforms IA are widely expressed but not detected in liver nor pancreas, neural expression is strongest in corpus callosum. Isoforms IB are expressed mostly in muscle, cerebellum, placenta and thymus, neural expression in fetal and adult brain, strongest in corpus callosum. 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.
Molecular Weight:	13 kDa
Gene ID:	4803
UniProt:	P01138
Pathways:	Regulation of Cell Size

Application Details

Application Notes:	ELISA, 0.1-0.5 µg/mL, - Western blot, 0.1-0.5 µg/mL, Human 1. Dracopoli, N. C., Rose, E., Whitfield, G. K., Guidon, P. T., Bale, S. J., Chance, P. A., Kourides, I. A., Housman, D. E. : Two thyroid hormone regulated genes, the beta-subunits of nerve growth factor (NGFB) and thyroid stimulating hormone (TSHB), are located less than 310 kb apart in both human and mouse genomes. Genomics 3: 161-167, 1988. 2. Einarsdottir, E., Carlsson, A., Minde, J., Toolanen, G., Svensson, O., Solders, G., Holmgren, G., Holmberg, D., Holmberg, M. : A mutation in the nerve growth factor beta gene (NGFB) causes loss of pain perception. Hum. Molec. Genet. 13: 799-805, 2004. 3. Francke, U., de Martinville, B., Coussens, L., Ullrich, A. : The human gene for the beta subunit of nerve growth factor is located on the proximal short arm of
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Application Details

chromosome 1. Science 222: 1248-1251, 1983

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg NaN₃.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: Fan, Xiong, Fu, Xu, Wang, Chen, Xia, Peng, Ye, Wang, Zhang, Ye et al.: "Polyaniline promotes peripheral nerve regeneration by enhancement of the brain-derived neurotrophic factor and ciliary neurotrophic factor expression and activation of the ERK1/2/MAPK signaling ..." in: **Molecular medicine reports**, Vol. 16, Issue 5, pp. 7534-7540, (2018) ([PubMed](#)).

Zhao, Chen, Shen, Zhao, Wang, Shi, Wang, Cui, Yan, Xue: "Transplantation of human umbilical cord blood mesenchymal stem cells to treat a rat model of traumatic brain injury." in: **Neural regeneration research**, Vol. 7, Issue 10, pp. 741-8, (2015) ([PubMed](#)).

Luo, Liu, Chen, Wang, Zeng, Chen, Cheng et al.: "Nerve growth factor and inducible nitric oxide synthase expression in the mesencephalon and diencephalon, as well as visual- and auditory-related nervous tissues, in a macaque model of type 2 ..." in: **Neural regeneration research**, Vol. 7, Issue 4, pp. 302-7, (2015) ([PubMed](#)).

Huang, Zhang, Xu, Li, Zhao: "Expression of nerve growth factor in the prostate of male rats in response to chronic stress and sympathetic denervation." in: **Experimental and therapeutic medicine**, Vol. 8, Issue 4, pp. 1237-1240, (2014) ([PubMed](#)).

Pu, Shi, Wang, Wang, Guo, Liu, Sun, Gao, Zhou: "Effects of minocycline on the expression of NGF and HSP70 and its neuroprotection role following intracerebral hemorrhage in rats." in: **Journal of biomedical research**, Vol. 25, Issue 4, pp. 292-8, (2013) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



Western Blotting

Image 1. Western blot analysis of NGF/NGF Beta using anti-NGF/NGF Beta antibody . 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 #) at 0.5 µg/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 (Catalog # EK1002) 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.