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NGFB Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7771c

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	P01138
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14403
Calculated MW	26959
Antigen Region	84-115

Additional Information

Gene ID	4803
Other Names	Beta-nerve growth factor, Beta-NGF, NGF, NGFB
Target/Specificity	This NGFB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 84-115 amino acids from the Central region of human NGFB.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NGFB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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}

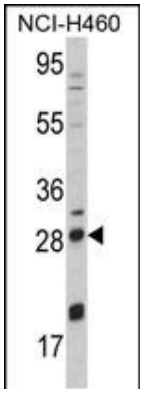
Background

NGFB is a member of the NGF-beta family. It is a secreted protein which homodimerizes and is incorporated into a larger complex. This protein has nerve growth stimulating activity and the complex is involved in the regulation of growth and the differentiation of sympathetic and certain sensory neurons. Mutations in the gene encoding NGFB have been associated with hereditary sensory and autonomic neuropathy, type 5 (HSAN5), and dysregulation of the gene's expression is associated with allergic rhinitis.

References

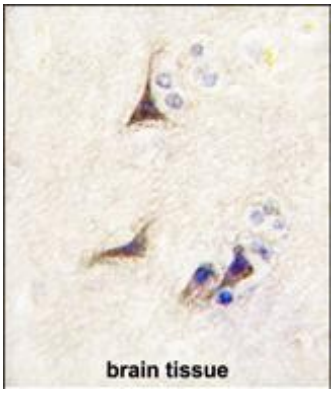
Lang,U.E., Pharmacopsychiatry 41 (5), 196-199 (2008)
Truzzi,F., J. Invest. Dermatol. 128 (8), 2031-2040 (2008)
MacGrogan,D., J. Neurochem. 59 (4), 1381-1391 (1992)

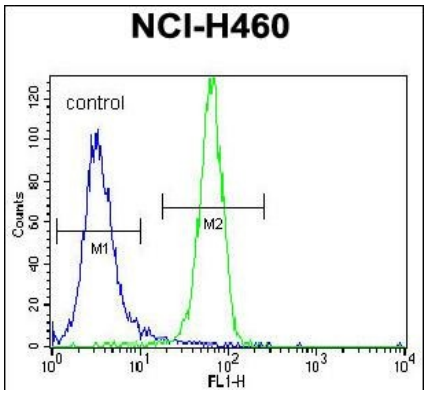
Images



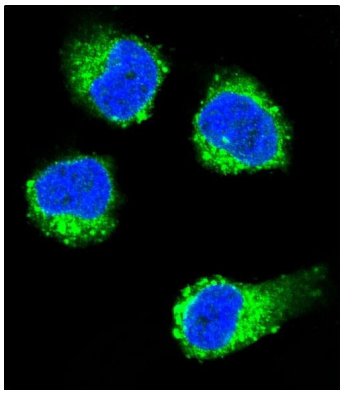
Western blot analysis of NGFB Antibody (Center) (Cat. #AP7771c) in NCI-H460 cell line lysates (35ug/lane). NGFB (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human brain tissue reacted with NGFB antibody (Center) (Cat.#AP7771c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





NGFB Antibody (Center) (Cat. #AP7771c) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of NGFB Antibody (Center)(Cat#AP7771c) with MDA-MB231 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).

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