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CNTF Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21322b

Product Information

Application	WB, E
Primary Accession	P26441
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52493
Calculated MW	22931

Additional Information

Gene ID	1270
Other Names	Ciliary neurotrophic factor, CNTF, CNTF
Target/Specificity	This CNTF antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 181-216 amino acids from the C-terminal region of human CNTF.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	CNTF Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CNTF (HGNC:2169)
Function	Functions as a cytokine through the ciliary neurotrophic factor receptor (CNTFR) complex (PubMed:10966616, PubMed:11285233, PubMed:11294841, PubMed:31932351, PubMed:36930708). The CNTFR complex indeed consists of the membrane-anchored non-signaling receptor CNTFR and the two signaling receptor subunits IL6ST/gp130 and LIFR that transduce the signal

into the cell (PubMed:36930708). Functionally, promotes neuronal survival, supports differentiation of various neuronal and non-neuronal cells, and importantly regulates oligodendrocyte progenitor proliferation (PubMed:1861138, PubMed:1883844, PubMed:31932351). Mechanistically, ligand binding to the CNTFR induces dimerization of the IL6ST/gp130 and LIFR, which activates JAK tyrosine kinases (JAK1 or JAK2 and to lesser extent TYK2) bound to their intracellular domains (PubMed:11294841). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR (PubMed:11294841). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activators of transcription (STAT3 and to lesser extent STAT1) (PubMed:11285233, PubMed:11294841). Can also signal via trans-signaling using soluble forms of CNTFR (PubMed:31932351, PubMed:7681218). Seems to prevent the degeneration of motor axons after axotomy (By similarity).

Cellular Location

Cytoplasm. Secreted {ECO:0000250|UniProtKB:Q02011}. Note=The precursor semms to be cytoplasmic (Probable). The lack of a specific hydrophobic segment in the precursor sequence suggests that CNTF is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins (By similarity). {ECO:0000250|UniProtKB:P20294, ECO:0000305|PubMed:1915374}

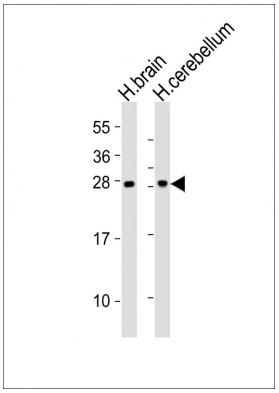
Background

CNTF is a survival factor for various neuronal cell types. Seems to prevent the degeneration of motor axons after axotomy.

References

Masiakowski P.,et al.J. Neurochem. 57:1003-1012(1991).
Negro A.,et al.Eur. J. Biochem. 201:289-294(1991).
Lam A.,et al.Gene 102:271-276(1991).
McDonald J.R.,et al.Biochim. Biophys. Acta 1090:70-80(1991).
Takahashi R.,et al.Nat. Genet. 7:79-84(1994).

Images



All lanes : Anti-CNTF Antibody (C-term) at 1:2000 dilution Lane 1: human brain lysates Lane 2: human cerebellum lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 23 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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