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CNTF Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20465c

Product Information

Application	WB, E
Primary Accession	P26441
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	22931
Antigen Region	114-140

Additional Information

Gene ID	1270
Other Names	Ciliary neurotrophic factor, CNTF, CNTF
Target/Specificity	This CNTF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 114-140 amino acids from the Central region of human CNTF.
Dilution	WB~~1:1000 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 (Center) 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}

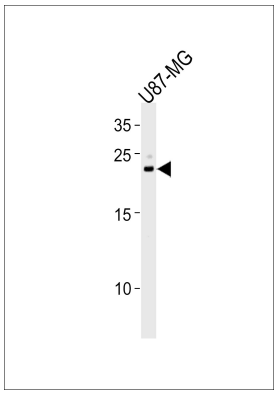
Background

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



CNTF Antibody (Center) (Cat. #AP20465c) western blot analysis in U87-MG cell line lysates (35ug/lane).This demonstrates the CNTF antibody detected the CNTF protein (arrow).

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