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CNTF Rabbit pAb

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Catalog # AP94413

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P26441
Reactivity	Rat, Rabbit
Predicted	Pig, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22931
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CNTF
Epitope Specificity	21-150/200
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a polypeptide hormone whose actions appear to be restricted to the nervous system where it promotes neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. The protein is a potent survival factor for neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. In addition to the predominant monocistronic transcript originating from this locus, the gene is also transcribed as a readthrough transcript with the upstream Zfp91 gene. The resulting protein is an isoform of Zfp91 and does not include Cntf sequence. Readthrough transcription of Zfp91 and Cntf has been observed in human and mouse.

Additional Information

Gene ID	1270
Other Names	Ciliary neurotrophic factor, CNTF, CNTF
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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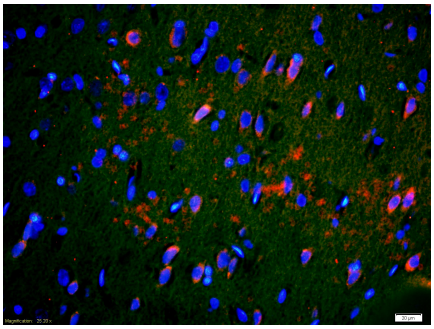
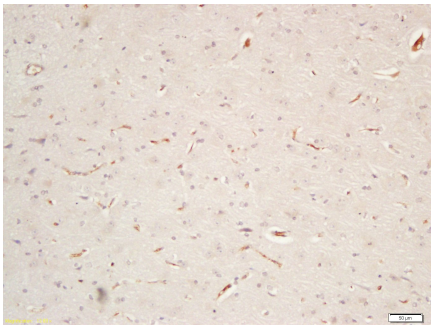
Images



Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-CNTF Polyclonal Antibody, Unconjugated(AP94413) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(AP94413-Cy3)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei

Tissue/cell: rabbit brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;



Incubation: Anti-CNTF Polyclonal Antibody, Unconjugated(AP94413) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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