

Product datasheet for **TA328702**

CNTF Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)ELSQWTVRSIHCDLR, corresponding to amino acid residues 164-177 of human CNTF. C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS) pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	ciliary neurotrophic factor
Database Link:	NP_000605 Entrez Gene 25707 Rat Entrez Gene 1270 Human P26441



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Background:

CNTF is a polypeptide trophic factor, member of the alpha-helical cytokine superfamily. It was initially purified from the chick eye on the basis of its ability to promote survival of E8 chick ciliary ganglion neurons in culture. CNTF is synthesized by glia both in the CNS and PNS and it has been demonstrated that CNTF is ubiquitously distributed in neurons and glia throughout the rodent brain. CNTF effects are mediated by a tripartite receptor complex consisting of two signal-transducing subunits (leukemia inhibitory factor receptor, gp130) and a CNTF-specific ligand-binding-subunit (CNTFR). CNTF can support the survival of many different cell populations within the PNS and the CNS. *in vitro*, CNTF promotes proliferation and neuronal specifications in hippocampal neurons. *in vivo*, it supports the viability of non-primate motor neurons, CNTF induces sprouting of cholinergic motor neurons and delays neural degeneration in genetic models of motor neuron disease. In addition, it is involved in the development stage of astrocytes and oligodendocytes.

Synonyms:

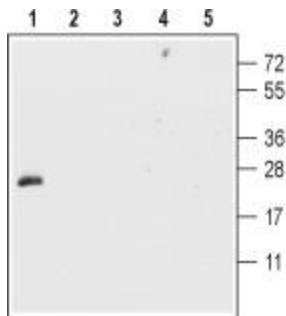
HCNTF

Protein Families:

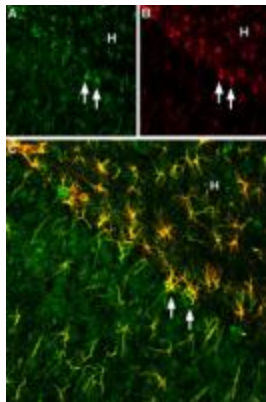
Druggable Genome

Protein Pathways:

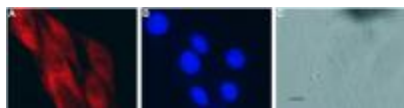
Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway

Product images:

Western blot analysis using Anti-CNTF on: 1. human CNTF, 20ng. 2. hCardiotrophin-1, 20ng. 3. hLIF, 20ng. 4. mL-6, 20 ng. 5. human CNTF, 20ng. Lanes 1-4. Anti-CNTF antibody, (1:200). Lane 5. Anti-CNTF, preincubated with the control peptide antigen. The specificity of the antibody is demonstrated in that it specifically recognizes CNTF while it does not react with the related cytokines Cardiotrophin-1, LIF and IL-6.



Expression of Ciliary Neurotrophic Factor (CNTF) in rat hippocampus. Immunohistochemical staining of rat hippocampus using Anti-CNTF antibody, (1:200). A. CNTF staining (green) reveals astrocyte-profiles (arrows show examples) in the hilus (H) of the dentate gyrus. B. Staining the same section with the astrocyte marker, anti-gial fibrillary acidic protein (red), visualizes astrocytes in the hilus. C. Merge of the two images shows that CNTF is indeed expressed in astrocytes.



Expression of CNTF in rat C6 glioma cells. Immunocytochemical staining of fixed and permeabilized rat C6 glioma cells. A. Cells were stained with Anti-CNTF antibody, (1:200), followed by goat anti-rabbit-DyLight-594 secondary antibody (red). B. Cell nuclei were visualized with the membrane-permeable DNA dye Hoechst 33342 (blue staining). C. Live view of the cells.