10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CNTF Receptor alpha Rabbit pAb

Catalog # AP97770

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P26992
Other Accession	P26992
Reactivity	Mouse
Predicted	Rat, Human, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40633
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CNTF Receptor alpha
Epitope Specificity	71-170/372
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the type I cytokine receptor family. Type 3 subfamily. Contains 2 fibronectin type-III domains. Contains 1 Ig-like C2-type (immunoglobulin-like) domain.
SUBUNIT	Heterotrimer of the alpha subunit, LIFR and IL6ST.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the type 1 cytokine receptor family. The encoded protein is the ligand-specific component of a tripartite receptor for ciliary neurotrophic factor, which plays a critical role in neuronal cell survival, differentiation and gene expression. Binding of ciliary neurotrophic factor to the encoded protein recruits the transmembrane components of the receptor, gp130 and leukemia inhibitory factor receptor, facilitating signal transduction. Single nucleotide polymorphisms in this gene may be associated with variations in muscle strength, as well as early onset of eating disorders. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, May 2011].

Additional Information

Gene ID	1271
Other Names	CNTFRALPHA; CNTFR-alpha; CNTFR_CANLF; CNTFR; CNTF receptor subunit alpha; CNTFR_HUMAN; CNTFR_MOUSE; CNTFR_RAT; ciliary neurotrophic factor receptor
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	CNTFR {ECO:0000303|PubMed:7774913, ECO:0000312|EMBL:AAA35707.1}
Function	Functions either as a membrane-anchored non-signaling receptor via a GPI anchor or, after proteolytic release, as a soluble ligand-binding chaperone, and mediates signaling of CNTF-related cytokines, including ciliary neurotrophic factor (CNTF), cardiotrophin- like cytokine factor 1 (CLCF1), and the heterodimeric cytokine formed by CLCF1 and the cytokine receptor-like factor 1 (CRLF1) (PubMed:10966616, PubMed:11285233, PubMed:11294841, PubMed:26858303, PubMed:31932351, PubMed:36930708, PubMed:7681218). Involved namely in cell survival of motor neurons and regulation of oligodendrocyte progenitor proliferation (PubMed:11285233, PubMed:19386761, PubMed:31932351). Functions within the ciliary neurotrophic factor receptor (CNTFR) complex as a membrane-anchored non-signaling receptor subunit associated with two other signaling receptor subunits IL6ST/gp130 and LIFR (PubMed:10966616, PubMed:11285233, PubMed:11294841, PubMed:26858303, PubMed:31932351, PubMed:36930708, PubMed:7681218). Also, functions within the humanin receptor complex as a membrane-anchored non-signaling receptor subunit associated with IL6ST/GP130 and IL27RA/WSX1 that mediates the MT-RNR2/humanin signaling which induces neuroprotection (PubMed:19386761). Alternatively functions as a soluble ligand-binding chaperone that binds ligand in the extracellular space, forming a cytokine complex which is delivered to the IL6ST/gp130 and LIFR signaling receptor subunits (PubMed:11285233, PubMed:31932351, PubMed:7681218). Mechanistically, ligand binding to the CNTFR induces dimerization of the IL6ST/gp130 and LIFR (or IL27RA/WSX1 in the case of MT-RNR2/humanin), which activate JAK tyrosine kinases (JAK1 or JAK2 and to lesser extent TYK2) bound to their intracellular domains (PubMed:10966616, PubMed:11285233, PubMed:11294841, PubMed:19386761, PubMed:7681218). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR (or IL27RA/WSX1) (PubMed:10966616, PubMed:11285233, PubMed:11294841, PubMed:7681218). 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:10966616, PubMed:11285233, PubMed:11294841, PubMed:19386761, PubMed:7681218).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Localized at cell membrane when associated with SORL1 (PubMed:26858303). Released from plasma membrane and extracellular vesicles (EV) by GDPD2 (PubMed:31932351)
Tissue Location	Nervous system and skeletal muscle (PubMed:1648265). Soluble form is detected in cerebrospinal fluid (CSF) and is released from skeletal muscle in response to peripheral nerve injury (PubMed:7681218).

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