

DESCRIPTION

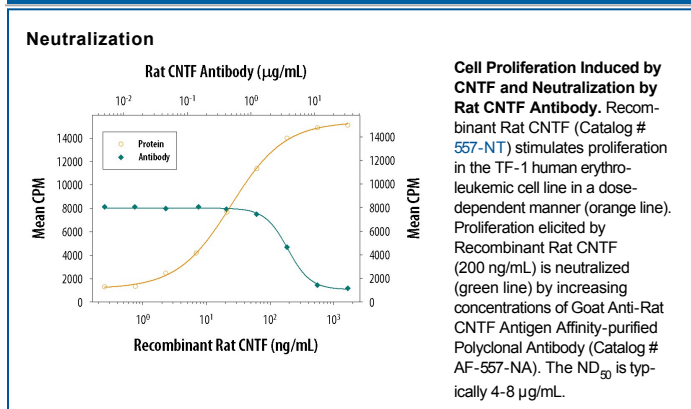
Species Reactivity	Rat
Specificity	Detects rat CNTF in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 15% cross-reactivity with recombinant human CNTF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant rat CNTF Ala2-Met200 Accession # P20294.1
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Rat CNTF (Catalog # 557-NT)
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of rat spinal cord
Neutralization	Measured by its ability to neutralize CNTF-induced proliferation in the TF-1 human erythroleukemic cell line. The Neutralization Dose (ND ₅₀) is typically 4-8 µg/mL in the presence of 200 ng/mL Recombinant Rat CNTF.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Ciliary neurotrophic factor (CNTF) is a polypeptide initially purified from chick embryo ocular tissue and identified as a trophic factor for embryonic chick ciliary parasympathetic neurons in culture. Subsequent studies have demonstrated that CNTF is a survival factor for additional neuronal cell types including: dorsal root ganglion sensory neurons, sympathetic ganglion neurons, embryonic motor neurons, major pelvic ganglion neurons, and hippocampal neurons. CNTF has also been shown to prevent the degeneration of motor axons after axotomy. The cDNA for CNTF encodes a 200 amino acid residue polypeptide that lacks a signal sequence. CNTF is highly conserved across species and exhibits cross-species activities. Human and rat CNTF share approximately 83% homology in their protein sequence. CNTF is structurally related to IL-6, IL-11, LIF, and OSM. All of these four helix bundle cytokines share gp130 as a signal-transducing subunit in their receptor complexes.