Rat CNTF Antibody

Monoclonal Mouse IgG_{2B} Clone # 34738

Catalog Number: MAB557

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat CNTF in ELISAs and Western blots. In sandwich immunoassays, less than 3% cross-reactivity with recombinant human CNTF is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 34738
Purification	Protein A or G purified from ascites
Immunogen	*E. coli*-derived recombinant rat CNTF Ala2-Met200 Accession # P20294.1
Endotoxin Level	<1.0 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.

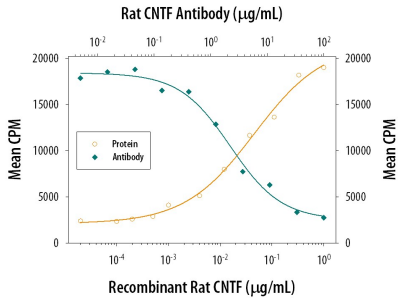
APPLICATIONS

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.*

Rat CNTF Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Rat CNTF Antibody (Catalog # MAB557)
ELISA Detection	0.1-0.4 µg/mL	Rat CNTF Biotinylated Antibody (Catalog # BAF557)
Standard		Recombinant Rat CNTF (Catalog # 557-NT)
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 1-3 µg/mL in the presence of 200 ng/mL Recombinant Rat CNTF.	

DATA

Neutralization



Cell Proliferation Induced by CNTF and Neutralization by Rat CNTF Antibody. Recombinant Rat CNTF (Catalog # 557-NT) stimulates proliferation in the TF-1 human erythroleukemic cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Rat CNTF (200 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Rat CNTF Monoclonal Antibody (Catalog # MAB557). The ND_{50} is typically 1-3 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956