

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CNTF Rα in direct ELISAs and Western blots. In Western blots, approximately 100% cross-reactivity with recombinant rat CNTF Rα is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 121723
Purification	Protein A or G purified from ascites
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CNTF Rα Gln23-Pro346 (predicted) Accession # P26992
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The high-affinity CNTF receptor complex, which mediates the biological action of CNTF, contains three proteins: the ligand-binding α subunit (CNTF Rα), and the two signal-transducing proteins LIF Rβ and gp130. Whereas LIF Rβ and gp130 are widely expressed in many cell types, the expression of CNTF Rα is restricted to the central and peripheral nervous systems. cDNAs encoding human and rat CNTF Rα share 94% amino acid (aa) sequence identity. Human CNTF Rα cDNA encodes a 372 aa precursor protein with a 22 aa residue signal peptide and four potential glycosylation sites. CNTF Rα differs from other cytokine receptors in that it lacks transmembrane and cytoplasmic domains and is anchored to cell membranes by a glycosylphosphatidylinositol (GPI) linkage. Similar to other GPI-linked proteins, soluble CNTF receptor α (CNTF sRα) can be released from the cell surface by phosphatidylinositol-specific phospholipase C. CNTF sRα can be released from skeletal muscle in response to peripheral nerve injury and high concentrations of CNTF sRα have also been detected in human cerebrospinal fluid. CNTF sRα binds CNTF in solution and the complex can act on cells that express only LIF Rβ and gp130 but not CNTF Rα.

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