

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CLC in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) CT-1, rhCNTF, rhIL-6, rhIL-11, rhLIF, or rhOSM is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 138815
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human CLC Leu28-Phe225 Accession # Q9UBD9
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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

Cardiotrophin-like cytokine (CLC) (also known as novel neurotrophin-1 (NNT-1) and B cell stimulating factor (BSF-3)) is a recently discovered 22-25 kDa member of the IL-6 family of cytokines (1, 2, 3). As such, it is expressed as a long type I cytokine with four α-helices in its structure (2). Human CLC is synthesized as a 225 amino acid precursor that contains a 27 aa signal sequence and a 198 aa mature region. It contains one potential N-linked glycosylation site that is apparently utilized, and two distinct binding sites for CNTFRα and CLF (4, 5). Although CLC has a signal sequence, it is not secreted unless noncovalently dimerized to either CLF or soluble CNTFRα (5, 6). Once dimerized, CLC signals through a tripartite receptor complex composed of gp130, LIFRβ and CNTFRα (membrane-bound) (5, 7). Within the IL-6 family, human CLC is most homologous to cardiotrophin-1, sharing approximately 29% amino acid sequence identity (8). Human to mouse, mature CLC is 96% aa identical. CLC is a trophic factor for motor neurons, a stimulator of ACTH release from corticotrophs, and an inducer of IgE synthesis and B cell proliferation (9, 10, 11). Cells known to express CLC include embryonic muscle, lung epithelium, and mesenchyme in various regions (12).

PRODUCT SPECIFIC NOTICES

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