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CT-1

Catalog # PVGS1305

Product Information

Primary Accession	Q16619
Species	Human
Sequence	Ser2-Ala201
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	CHO
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	1489
Other Names	Cardiotrophin-1, CT-1, CTF1
Target Background	Cardiotrophin-1 (CT-1) is a member of the cytokine family which also includes IL-6, IL-11, l LIF, CNTF, OSM. CT-1 has since been shown to be a pleiotrophic cytokine with overlapping actions with other IL-6 family members on a variety of cell types. Biologically active human CT-1 is synthesized as a 201 amino acid polypeptide lacking a hydrophobic N-terminal secretion signal sequence. Recombinant Human CT-1 is a 21.1 kDa protein consisting of 200 amino acid residues.

Protein Information

Name	CTF1 (HGNC:2499)
Function	Functions as a cytokine that binds to the LIF receptor complex (PubMed:8833032). The LIF receptor complex indeed consists of two signaling

receptor subunits IL6ST/gp130 and LIFR that transduce the signal into the cell (By similarity). Functionally, acts as a potent cardiac survival factor, and promotes cardiomyocyte proliferation and hypertrophy (PubMed:8833032). Mechanistically, ligand binding to LIFR, induces heterodimerization with IL6ST/gp130 activating JAK tyrosine kinases (JAK1 or JAK2 and to a lesser extent TYK2) bound to their intracellular domains (By similarity). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR (By similarity). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activator of transcription STAT3 (By similarity).

Cellular Location Secreted.

Tissue Location Highly expressed in heart, skeletal muscle, prostate and ovary. Lower levels in lung, kidney, pancreas, thymus, testis and small intestine. Little or no expression in brain, placenta, liver, spleen, colon or peripheral blood leukocytes

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