

Recombinant Human CTF1 protein

Cat. No. CTF1-138H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CTF1 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	201
Description	Cardiotrophin-1 (CT-1) is a member of the cytokine family which also includes IL-6, IL-11, leukemia inhibitory factor (LIF), oncostatin M (OSM), and ciliary neurotrophic factor (CNTF)[Pennica, 1996 #1320]. CT-1 is a pleiotropic cytokine which is expressed in various tissues including the adult heart, skeletal muscle, ovary, colon, prostate and fetal lung. Studies showed CT-1 which induces cardiac myocyte hypertrophy in vitro can bind to and activate the ILST/gp130 receptor. Human CT-1 encodes a 201 amino acid (a.a.) residue protein that lacks a hydrophobic signal peptide and it shares 78 % a.a. and 80 % a.a. sequence identity with murine and rat CT-1.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0× 10 ⁶ IU/mg.

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Molecular Mass	Approximately 21.2 kDa, a single non-glycosylated polypeptide chain containing 201 amino acids.
AA Sequence	MSRREGSLEDPQTDSSVSLLPHLEAKIRQTHSLAHLTKYAEQLLQEYVQLQGDPFG LPSFSPRLPVAGLSAPAPSHAGLPVHERLRLDAAALAALPPLLDVCCRQAELNPR APRLLRRLEDAARQARALGAAVEALLAALGAANRGPRAEPPAATASAASATGVFPA KVLGLRVCGLYREWLSRTEGDLGQLLPGGS
Endotoxin	Less than 0.1 EU/g of rHuCT-1 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 4 mM HCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	CTF1
Official Symbol	CTF1
Synonyms	CTF1; cardiotrophin 1; cardiotrophin-1; CT 1; CT1; cardiophin 1; CT-1;
Gene ID	1489

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mRNA Refseq	NM_001142544
Protein Refseq	NP_001136016
MIM	600435
UniProt ID	Q16619

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