

## **Recombinant Human Cardiotrophin-1** (rHuCT-1)

## **PrimeGene Technical Data Sheet**

Catalog Number: 601-30

Source: Escherichia coli.

**Molecular Weight:** Approximately 21.2 kDa, a single non-glycosylated polypeptide chain containing 201 amino acids.

**Quantity:**  $2\mu g/10\mu g/1000\mu g$ 

**AA Sequence:** MSRREGSLED POTDSSVSLL PHLEAKIROT HSLAHLLTKY AEQLLQEYVQ

> LQGDPFGLPS FSPPRLPVAG LSAPAPSHAG LPVHERLRLD AAALAALPPL LDAVCRRQAE LNPRAPRLLR RLEDAARQAR ALGAAVEALL AALGAANRGP RAEPPAATAS AASATGVFPA KVLGLRVCGL YREWLSRTEG DLGQLLPGGS A

**Purity:** > 95 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** Fully biologically active when compared to standard. The ED<sub>50</sub> 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  $> 1.0 \times 10^6$ 

IU/mg.

Sterile Filtered White lyophilized (freeze-dried) powder. Physical Appearance:

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.

**Endotoxin:** Less than 0.1 EU/µg of rHuCT-1 as determined by LAL method.

**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 °C. Further dilutions should be made in

appropriate buffered solutions.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

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.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

## Human Cardiotrophin-1

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). 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.

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