

## Recombinant Human Cardiotrophin-1 (Human CT-1) Protein

### Product Information

Product Name	Cat#	Size
Recombinant Human Cardiotrophin-1 (Human CT-1) Protein	92110ES05	2 µg
	92110ES10	10 µg
	92110ES50	50 µg
	92110ES60	100 µg

### Product 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). It was originally isolated based on its ability to induce cardiac myocyte hypertrophy in vitro. 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. Human CT-1 encodes a 201 aa residue protein that lacks a hydrophobic signal peptide. The mechanism of CT-1 release from cells is currently not understood. Human and mouse CT-1 share 80% aa sequence identity and exhibit cross-species activity.

### Product Properties

<b>Synonyms</b>	cardiophin 1; Cardiotrophin1; Cardiotrophin-1; CT1; CTF1
<b>Accession</b>	Q16619
<b>GeneID</b>	1489
<b>Source</b>	E.coli-derived Human CT-1, Met 1-Ala201
<b>Molecular Weight</b>	Approximately 21.2 kDa.
<b>AA Sequence</b>	MSRREGSLED PQTSSVSLL PHLEAKIRQT HSLAHLTKY AEQLLQEYVQ LQGDPFGLPS FSPRLPVAG LSAPAPSHAG LPVHERLRD AAALAALPPL LDAVCRRQAE LNPRAPRLLR RLEDAARQAR ALGAAVEALL AALGAANRGP RAEPAAATAS AASATGVFPA KVLGLRVCGL YREWLSRTEG DLGQLLPGGS A
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	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× 10 <sup>6</sup> IU/mg. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
<b>Reconstitution</b>	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 and Storage**

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.