

## Active Recombinant Mouse Ctf1 Protein (202 aa)

Cat. No. Ctf1-191C Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant mouse Cardiotrophin-1 produced in HEK293 cells is a polypeptide chain containing 202 amino acids. A fully biologically active molecule, rmCT-1 has a molecular mass of 22-27 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
<b>Species</b>	Mouse
<b>Source</b>	HEK293
<b>ProteinLength</b>	202
<b>Description</b>	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 associated with the pathophysiology of several types of heart disease including hypertension, myocardial infarction, valvular heart disease, and congestive heart failure. The protein exerts its cellular effects by interacting with the glycoprotein 130 (gp130)/leukemia inhibitory factor receptor beta (LIFR) heterodimer. CT-1 activates phosphatidylinositol 3-kinase (PI-3 kinase) in cardiac myocytes and enhances transcription factor NF- $\kappa$ B DNA -binding activities. CT-1 is highly expressed in the heart, skeletal muscle, prostate and ovary and to lower levels in lung, kidney, pancreas, thymus, testis and small intestine.
<b>Form</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Bio-activity</b>	The EC50 value of Mouse Cardiotrophin-1 determined by the dose-dependent

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proliferation of TF-1 cells was  $\leq 1.25$  ng/mL, corresponding to a specific activity of  $\geq 0.86$  units/mg.

**Molecular Mass** 22~27 kDa, observed by reducing SDS-PAGE.

**AA Sequence**  
 SQREGSLEDHQTDSSISFLPHLEAKIRQTHNLARLLTKYAEQLLEEYVQQQGEPFGL  
 PGFSPRLPLAGLSGPAPSHAGLPVSELRQRDAAALSVLPALLDAVRRRQAELNPR  
 APRLLRSLEDAARQVRALGAAVETVLAALGAAARGPGPEPVTVATLFTANSTAGIFS  
 AKVLGFHVCGLYGEWVSRTEGDLGQLVPGGVA

**Endotoxin** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Purity** > 95% as analyzed by SDS-PAGE.

**Storage** Lyophilized recombinant Mouse Cardiotrophin-1 remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, Mouse Cardiotrophin-1 should be stable up to 1 week at 4 centigrade or up to 3 months at -20 centigrade.

**Storage Buffer** Lyophilized after extensive dialysis against PBS.

**Reconstitution** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/mL.

## GENE INFORMATION

**Gene Name** [Ctf1 cardiotrophin 1 \[ Mus musculus \]](#)

**Official Symbol** [Ctf1](#)

**Synonyms** CTF1; cardiotrophin 1; cardiotrophin-1; CT-1;

**Gene ID** [13019](#)

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mRNA Refseq	NM_007795
Protein Refseq	NP_031821
UniProt ID	A0A6P5Q4E7

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