

## Cardiotrophin-1, Murine Recombinant

<b>CATALOG #:</b>	7121-10	10 µg
	7121-50	50 µg
<b>ALTERNATE NAMES:</b>	CT-1	
<b>SOURCE:</b>	E.coli	
<b>PURITY:</b>	≥ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	21.3 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/µg of protein (<1EU/µg).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 0.5 mg/ml in 5 mM Tris, pH 8.0	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

### RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

### DESCRIPTION:

CT-1 is a member of the IL-6 family of cytokines which also includes LIF, CNTF, OSM (Oncostatin M), IL-11, IL-6 and possibly NT-1/BSF-3. CT-1 is a pleiotropic cytokine which is expressed in various tissues including the adult heart, skeletal muscle, ovary, colon, prostate and fetal lung and signals through the LIF receptor and the gp130 receptor subunit. CT-1 has the ability to induce cardiac myocyte hypertrophy, and enhances the survival of cardiomyocyte and different neuronal populations. Biologically active human CT-1 is synthesized as a 201 amino acid polypeptide lacking a hydrophobic N-terminal secretion signal sequence. Recombinant murine Cardiotrophin-1 is a 21.3 kDa protein consisting of 202 amino acid residues.

### BIOLOGICAL ACTIVITY:

Determined by its ability to stimulate the proliferation of human TF-1 cells.

The expected ED<sub>50</sub> is ≤ 1.0 ng/ml, corresponding to a specific activity of ≥ 1 x 10<sup>6</sup> units/mg.

### AMINO ACID SEQUENCE:

SQREGSLEDH QTSSISFLP HLEAKIRQTH NLARLLTKYA EQLLEEYVQQ  
QGEFGLPGF SPPRLPLAGL SGPAPSHAGL PVSERLRQDA AALSVLPALL  
DAVRRRQAEI NPRAPRLLRS LEDAARQVRA LGAAVETVLA ALGAAARGPG  
PEPVTVATLF TANSTAGIFS AKVLGFHVCG LYGEWVSRT E GDLGQLVPGG VA

### RELATED PRODUCTS:

- Cardiotrophin-1, human recombinant (Cat. No. 4011-10, -50, -100)
- CT-1 Polyclonal Antibody (Cat. No. 5011-100)

**FOR RESEARCH USE ONLY! Not to be used in humans.**