Technical Data Sheet

Flogen® Recombinant Murine Cardiotrophin1 (rMuCT1)

Catalog Number:	PGR0621-030
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 21.5 kDa, a single nonglycosylated polypeptide chain containing 203 amino acids.
Quantity:	2μg/10μg/1000μg
AA Sequence:	MSQREGSLED HQTDSSISFL PHLEAKIRQT HNLARLLTKY AEQLLEEYVQ QQGEPFGLPG FSPPRLPLAG LSGPAPSHAG LPVSERLRQD AAALSVLPAL LDAVRRRQAE LNPRAPRLLR SLEDAARQVR ALGAAVETVL AALGAAARGP GPEPVTVATL FTANSTAGIF SAKVLGFHVC GLYGEWVSRT EGDLGQLVPG GVA
Purity:	> 95 % by SDSPAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF1 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 106 IU/mg.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.5.
Endotoxin:	Less than 1 EU/μg of rMuCT1 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 sterile distilled water or aqueous buffer containing 0.1 % BSA 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.
Storage:	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. **Avoid repeated freeze/thaw cycles.**
Usage:	This material is for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Murine Cardiotrophin1

Cardiotrophin1 (CT1) is a member of the cytokine family which also includes IL6, IL11, leukemia inhibitory factor (LIF), oncostatin M (OSM), and ciliary neurotrophic factor (CNTF). CT1 is a pleiotropic cytokine which is expressed in various tissues including the adult heart, skeletal muscle, ovary, colon, prostate and fetal lung. In addition, CT1 which induces cardiac myocyte hypertrophy in vitro can bind to and activate the ILST/gp130 receptor. Murine CT1 encodes a 203 amino acid (a.a.) residue protein that lacks a hydrophobic signal peptide. Human and murine CT1 share 80 % a.a. sequence identity and exhibit crossspecies activity.