

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	641-30
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 21.4 kDa, a single non-glycosylated polypeptide chain containing 203 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	MSQREGSLED HQTSSFSFL PHLEAKIRQT HNLARLLTKY ADQLLEEVQ QQGEPFGLPG FSPRLPLAG LSGPAPSHAG LPVSELRQD AAALSALPAL LDAVRRRQAE LNPRAPRLLR SLEDAARQVR ALGAAVETVL AALGAAARGP VPEPVATSAL FTSNSAAGVF SAKVLGLHVC GLYGEWVSRT EGDGLQLVPG GVA
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human TF-1 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁶ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 30 % Acetonitrile, 0.1 % TFA.
Endotoxin:	Less than 1 EU/µg of rRtCT-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 4mM 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. <ul style="list-style-type: none">● 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:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Rat 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. Rat CT-1 encodes a 203 amino acid (a.a.) residue protein that lacks a hydrophobic signal peptide and it shares 94 % a.a. and 79 % a.a. sequence identity with human and murine CT-1.