

Recombinant Human Cardiotrophin-1 (CT-1)

Product 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 NNT-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.

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	Typically ≤ 1.0 ng/ml ED ₅₀
Purity	$\geq 98\%$
Endotoxin	<1.0 EU/ μ g
Molecular Mass	21.1 kDa
Formulation	1x PBS
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

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

AA Sequence

SRREGSLEDP	QTDSSVSLLP	HLEAKIRQTH
SLAHLTKYA	EQLLQEYVQL	QGDPFGLPSF
SPPRLPVAGL	SAPAPSHAGL	PVHERLRLDA
AALAALPPLL	DAVCRRQAEI	NPRAPRLRR
LEDAARQARA	LGAAVEALLA	ALGAANRGPR
AEPAAATASA	ASATGVFPAK	VLGLRVCGLY
REWLSRTEGD	LGQLLPGGSA	

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in 20mM Tris, pH 8.0 to a concentration of ≤ 1.0 mg/ml. Do not vortex.

Storage

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% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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