

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant CT-1, Mouse

Catalog Number: BK0301-50µg

Source: HEK 293

Quantity: 50µg

Description:

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-κB 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. 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 at GenScript.

Molecular Weight:

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

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

The EC50 value of Mouse Cardiotrophin-1 determined by the dose-dependent proliferation of TF-1 cells was ≤ 1.25 ng/ml, corresponding to a specific activity of $\geq 0.8 \times 10^6$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

SQREGSLEDHQTDSSISFLPHLEAKIRQTH-
NLARLLTKYAEQLLEEVVQQGEPFGLPGF-
SPPRLPLAGLSGPAP-
SHAGLPVSELRQDAAALSVPALLDAVRRR-
QAELNPRAPRLLRSLEDAARQVRALGAA-
VETVLAALGAAARGPGPEPVTVATLF-
TANSTAGIFSAKVLGFHVCGLYGEWVSR-
TEGDLGQLVPGGVA

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH2O or PBS at 100 µg/ml.

Storage:

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

Usage:

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