**Proteins** 



## **Product** Data Sheet

# Cardiotrophin-1/CTF1 Protein, Human (HEK293)

Cat. No.: HY-P72870

Synonyms: Cardiotrophin-1; CT-1; CTF1

Species: Human HEK293 Source:

Q16619 (S2-A201) Accession:

Gene ID: 1489

Molecular Weight: Approximately 26.6 kDa

### **PROPERTIES**

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$\Lambda \Lambda$	Sec	IIIΔN	60

SRREGSLEDP QTDSSVSLLP HLEAKIRQTH SLAHLLTKYA EQLLQEYVQL QGDPFGLPSF SPPRLPVAGL SAPAPSHAGL PVHERLRLDA AALAALPPLL DAVCRRQAEL NPRAPRLLRR LEDAARQARA LGAAVEALLA AEPPAATASA ALGAANRGPR ASATGVFPAK VLGLRVCGLY REWLSRTEGD LGQLLPGGSA

**Appearance** 

Lyophilized powder.

**Formulation** 

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

**Endotoxin Level** 

<1 EU/ $\mu$ g, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** 

Room temperature in continental US; may vary elsewhere.

#### **DESCRIPTION**

#### **Background**

Cardiotrophin-1/CTF1 protein serves as a potent inducer of cardiac myocyte hypertrophy in vitro, underscoring its regulatory role in the enlargement of heart muscle cells. This effect is mediated through its binding to and activation of the ILST/gp130 receptor, indicating a specific molecular pathway through which Cardiotrophin-1 exerts its influence. By engaging with the ILST/gp130 receptor, Cardiotrophin-1 orchestrates signaling events that contribute to the hypertrophic response in cardiac myocytes. This molecular insight into the interaction between Cardiotrophin-1 and its receptor provides a foundational understanding of the mechanisms underlying cardiac hypertrophy and implicates this protein in the modulation of heart muscle growth.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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