

Recombinant Human CTF1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50230

Size: 10ug, 100ug

Protein Name: Cardiotrophin-1 (CT-1)

Synonym: CTF1

UniProt ID: Q16619

UniProt Link: www.uniprot.org/uniprotkb/Q16619/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 201 AA

Molecular Weight: 21 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSRREGSLEDPQTDSSVSLPHLEAKIRQTHSLAHLTKYAEQLLQEYVQLQGDPFGLPSFSPPRLP
VAGLSAPAPSHAGLPVHERLRDAAALAALPPLDAVCRRQAELNPAPRLLRRLEDAARQARALGA
AVEALLAALGAANRGPRAEPPAATASAASATGVFPAKVLGLRVCGLYREWLSRTEGDLGQLLPGGS
A

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Cardiotrophin-1 (CT-1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Functions as a cytokine that binds to the LIF receptor complex (PubMed:8833032). The LIF receptor complex indeed consists of two signaling receptor subunits IL6ST/gp130 and LIFR that transduce the signal into the cell (By similarity). Functionally, acts as a potent cardiac survival factor, and promotes cardiomyocyte proliferation and hypertrophy (PubMed:8833032). Mechanistically, ligand binding to LIFR, induces heterodimerization with IL6ST/gp130 activating JAK tyrosine kinases (JAK1 or JAK2 and to a lesser extent TYK2) bound to their intracellular domains (By similarity). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR (By similarity). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activator of transcription STAT3 (By similarity).

Subcellular Localization: Secreted .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.