

Cardiotrophin-1/CTF1 Protein, Human (His)

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| Cat. No.: | HY-P7739 |
| Synonyms: | rHuCardiotrophin-1, His; Cardiotrophin-1; CT-1; CTF1 |
| Species: | Human |
| Source: | E. coli |
| Accession: | Q16619 (M1-A201) |
| Gene ID: | 1489 |
| Molecular Weight: | Approximately 25.0 kDa |

PROPERTIES

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| AA Sequence | <pre> HHHHHMSRR EGSLEDPQTD SSVSLLPHLE AKIRQTHSLA HLLTKYAEQL LQEYVQLQGD PFGLPSSFSP RLPVAGLSAP APSHAGLPVH ERLRLDAAAL AALPPLLDV CRRQAELNPR APRLLRRLLED AARQARALGA AVEALLAALG AANRGPRAEP PAATASAASA TGVFPAKVLG LRVCGLYREW LSRTEGDLGQ LLPGGSA </pre> |
| Appearance | Solution. |
| Formulation | Supplied as a 0.2 µm filter solution of PBS, 2 mM EDTA, 5% Trehalose, pH7.4. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | N/A |
| Storage & Stability | Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles. |
| Shipping | Shipping with dry ice. |

DESCRIPTION

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| Background | <p>Cardiotrophin-1 (CT-1) is a new member of the IL-6 family which also includes IL-6, IL-11, leukemia inhibitory factor (LIF), oncostatin M (OSM), and ciliary neurotrophic factor (CNTF)^[1].</p> <p>Cardiotrophin-1 induce its biological effects through the shared signaling subunit, gp 130^[2].</p> <p>Human CT-1 encodes a 201 amino acid (aa) residue protein that lacks a hydrophobic signal peptide. Human and mouse CT-1 share 80% aa sequence identity and exhibit cross-species activity. CT-1 is highly expressed in heart, skeletal muscle, liver, lung and kidney. Lower levels of CT-1 expression is also seen in testis and brain^[2].</p> <p>CT-1 initiates downstream signaling pathways through the heterodimerization of gp130 and the LIF receptor beta subunit. A</p> |
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third alpha receptor subunit has been implicated in the receptor complex. Cardiotrophin-1 can acts as a cytoprotective molecule.

Recombinant Human Cardiotrophin-1, His is an approximately 25.0 kDa human cardiotrophin-1 protein with a His-flag. Cardiotrophin-1 belongs to the IL-6 family and can act as a cytoprotective molecule^[1].

REFERENCES

- [1]. O Robledo, et al. Signaling of the cardiotrophin-1 receptor. Evidence for a third receptor component. J Biol Chem. 1997 Feb 21;272(8):4855-63.
- [2]. D Pennica, et al. Cardiotrophin-1: a multifunctional cytokine that signals via LIF receptor-gp 130 dependent pathways. Cytokine Growth Factor Rev. 1996 Jun;7(1):81-91.
- [3]. Miguel López-Yoldi, et al. Cardiotrophin-1: A multifaceted cytokine. Cytokine Growth Factor Rev. 2015 Oct;26(5):523-32.
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Caution: Product has not been fully validated for medical applications. For research use only.

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