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32-1115: CT 1 Recombinant Protein

Alternative Name : CTF1,CT1,CT-1,Cardiophin 1.

Description

Source : Escherichia Coli. The Cardiotrophin His-Tagged Fusion Protein Human, produced in E. coli, is 22.5 kDa protein containing 200 amino acid residues of the human Cardiotrophin and 12 additional amino acid residues - His Tag . Cardiotrophin 1 (CT-1) is a 201 amino acid member of the interleukin-6 superfamily. It was identified by its ability to induce hypertrophic response in cardiac myocytes. CT-1 mRNA levels were found both in cardiac myocytes and in cardiac nonmyocytes. CT 1 was also detected in abundance in normal adult human lung and was expressed in both fetal and adult airway smooth muscle cells. CT 1 activates gp130 dependent signaling and stimulates the Janus kinase/signal transducers and activators of transcription (JAK/STAT) pathway to transduce hypertrophic and cytoprotective signals in cardiac myocytes.CT 1 has also a neurotrophic function. CTF1 deficiency causes increased motoneuron cell death in spinal cord and brainstem nuclei of mice during a period between embryonic day 14 and the first postnatal week. Moreover, CT-1 is a hepatocyte survival factor that efficiently reduces hepatocellular damage in animal models of acute liver injury. Cardiotrophin 1 expression is augmented after hypoxic stimulation and it can protect cardiac cells when added either prior to simulated ischaemia or at the time of reoxygenation following simulated ischaemia. Cardiotrophin 1 can induce expression of the protective heat shock proteins (hsps) in cardiac cells.Cardiotrophin-1 increased ventricular expression of ANP, brain natriuretic peptide (BNP) and angiotensinogen mRNA.Cardiophin 1 levels were significantly elevated in patients with heart failure, patients with dilatative cardiomyopathy, moderate/severe mitral regurgitation, stable and unstable angina and after acute myocardial infarction.

Product Info

Amount :	10 µg
Purification :	Purity of CTF1 Human Recombinant is greater than 90% as determined by SDS-PAGE.
Content :	CTF1 was filtered (0.4 µm) and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH-4.
Storage condition :	Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.
Amino Acid :	MRGSHHHHHH GSSRREGSLE DPQTDSSVSL LPHLEAKIRQ THSLAHLLTK YAEQLLQEYV QLQGDPFGLPSFSPPRLPVA GLSAPAPSHA GLPVHERLRL DAAALAALPP LLDAVCRRQA ELNPRAPRLL RRLEDAARQA RALGAAVEAL LAALGAANRG PRAEPPAATA SAASATGVFP AKVLGLRVCG LYREWLSRTE GDLGQLLPGG SA.

Application Note

It is recommended to add 0.1M Acetate buffer pH-4 to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10Ã‚Âµg/ml. In higher concentrations the solubility of this antigen is limited. Protein is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.