

For Research Use Only

Recombinant Mouse Cardiotrophin-1 protein (mFc Tag)



Catalog Number: Eg4141

Basic Information

Species:
Mouse

Purity:
>90 %, SDS-PAGE

Tag:
mFc Tag

Technical Specifications

Purity:

>90 %, SDS-PAGE

Endotoxin Level:

<0.1 EU/μg protein, LAL method

Source:

HEK293-derived Mouse Cardiotrophin-1 protein Ser2-Ala203 (Accession# Q60753) with a mouse IgG Fc tag at the C-terminus.

GeneID:

13019

Accession:

Q60753

Predicted Molecular Mass:

48.0 kDa

SDS-PAGE:

51-58 kDa, reducing (R) conditions

Formulation:

Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Ctf1 is a multifunctional cytokine that plays a crucial role in cardioprotection, neuroprotection, and glucose metabolism. Mouse models have been used to study the function of Ctf1 in various disease states, and its human ortholog CT1 is a promising candidate for the development of therapeutic strategies for metabolic and neurological disorders. Cardiotrophin-1 (CTF1) is a member of the IL-6 family of cytokines and has been shown to protect cardiac cells against ischemia/reperfusion injury, inhibit apoptotic cell death, and enhance liver regeneration after hepatectomy. It is also expressed in the embryonic limb bud and is secreted by differentiated myotubes. CTF1 has been shown to exhibit impressive neuroprotective effects and delay the progression of motor neuron degenerative disorders such as amyotrophic lateral sclerosis (ALS), progressive motor neuropathy (PMN), and spinal muscular atrophy (SMA). It also protects cortical neuronal cells against free radical-induced oxidative stress, excitatory damage, and sodium nitroprusside (SNP)-induced neurotoxic effects.

References

1. Zhou S, Li Z, et al. (2024) J Adv Res. S2090-1232(24)00183-8.
2. Wang D, Li X, et al. (2013) Pharmacol Biochem Behav. 107:48-57.
3. Lutz SZ, Franck O, et al. (2014) PLoS One. 9(7):e100391.
4. Jiménez-González M, et al. (2013) Diabetologia. 56(4):838-46.

Synonyms

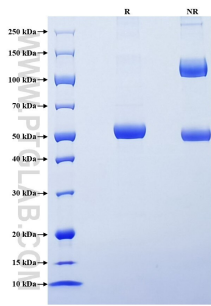
CT-1, Ctf1

For technical support and original validation data for this product please contact

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Selected Validation Data



Purity of Recombinant Mouse Cardiotrophin-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.