

Human GDF-15 Protein (Fc Tag)

Catalog Number: 10936-H01H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

GDF15, GDF-15, MIC-1, MIC1, NAG-1, PDF, PLAB, PTGFB

Protein Construction:

A DNA sequence encoding the mature form of human GDF15 (NP_004855.2) (Ala 197-Ile 308) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human Fc/GDF15 is a disulfide-linked homodimeric protein. The reduced monomer consists of 370 amino acids and has a predicted molecular mass of 40.6 kDa. rhGDF15/Fc monomer migrates as an approximately 44 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

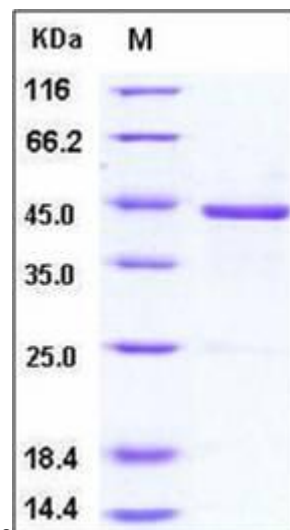
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are available with the products.

Protein Description

Growth differentiation factor 15 (GDF15), also known as MIC-1, PDF, PLAB, and PTGFB, is a member of the transforming growth factor β (TGF β) superfamily. It plays an important role in regulating inflammatory and apoptotic pathways in injured tissues and during disease processes. This protein is synthesized intracellularly and secreted as a dimer linked by disulfide bonds. GDF15 is widely expressed in adult tissue with most abundant level in the liver, and its expression in liver can be significantly upregulated during injury of organs such as liver, kidney, heart and lung. In the brain, GDF15 expression occurs in the choroid plexus, from which the protein is secreted into the cerebrospinal fluid. As a responsive gene for p53 tumor suppressor protein, the encoded GDF15 protein can prevent cell death by the activation of Akt and inhibition of ERK, and overexpression of GDF15 occurs in certain carcinomas. GDF15 acts as a trophic factor for certain classes of neurons, promoting cell survival and differentiation. Additionally, GDF15 has been identified as a bone marrow-derived factor that abrogates hepcidin-mediated protection from iron overload under conditions of increased erythropoiesis.

References

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3. Strelau, J. et al., 2003. J. Neural. Transm. Suppl. 65: 197-203.
4. Ago, T. et al., 2006, Circ Res. 98 (3): 294-297.
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