Human GDF-15 Protein (Fc Tag)

Catalog Number: **10936-H01H**

General Information

Gene Name Synonym:

GDF-15; MIC-1; MIC1; NAG-1; PDF; PLAB; PTGFB

Protein Construction:

A DNA sequence encoding the mature form of human GDF15 (P01857.1) (Ala 197-Ile 308) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

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

Stability:

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

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, mannitol and 0.01% Tween80 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:

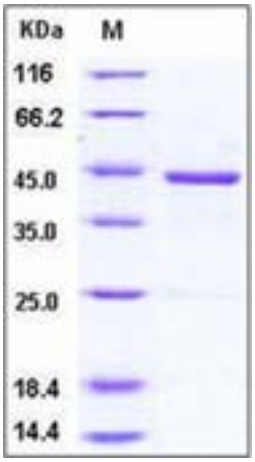
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Growth-differentiation factor 15 (GDF15), also known as MIC-1, is a secreted member of the transforming growth factor (TGF)-β superfamily, as a novel antihypertrophic regulatory factor in the heart. GDF-15 / GDF15 is not expressed in the normal adult heart but is induced in response to conditions that promote hypertrophy and dilated cardiomyopathy and it is expressed highly in liver. GDF-15 / GDF15 has a role in regulating inflammatory and apoptotic pathways in injured tissues and during disease processes. GDF-15 / GDF15 is synthesized as precursor molecules that are processed at a dibasic cleavage site to release C-terminal domains containing a characteristic motif of 7 conserved cysteines in the mature protein. GDF-15 / GDF15 overexpression arising from an expanded erythroid compartment contributes to iron overload in thalassemia syndromes by inhibiting hepcidin expression.

References

1.Ago T, *et al.* (2006) GDF15, a cardioprotective TGF-beta superfamily protein. Circ Res. 98 (3): 294-297. 2.Hsiao E, *et al.* (2000) Characterization of growth-differentiation factor 15, a transforming growth factor beta superfamily member induced following liver injury. Mol Cell Biol. 20 (10): 3742-51. 3.Zimmers T, *et al.* (2005) Growth differentiation factor-15/macrophage inhibitory cytokine-1 induction after kidney and lung injury. Shock. 23 (6): 543-8.