

# Human GDF-15 / GDF15 Protein (His Tag) (Mature Form)

Catalog Number: 10936-H07Y



Sino Biological  
Biological Solution Specialist

## 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 (NP\_004855.2) (Ala197-Ile308) was expressed with a polyhistidine tag at the N-terminus.

**Source:** Human

**Expression Host:** Yeast

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE.

### Endotoxin:

Please contact us for more information.

### Stability:

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

**Predicted N terminal:** His

### Molecular Mass:

The recombinant mature form of human GDF15 consists of 130 amino acids and predicts a molecular mass of 14.2 kDa.

### Formulation:

Lyophilized from sterile 35 % CAN, 0.1 % TFA.

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:

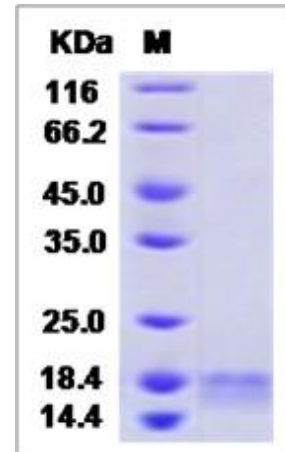
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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)- $\beta$  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.

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