

# Active Recombinant Mouse Gdf15 Protein, His-Tagged

**Cat. No.** Gdf15-11091M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Product Overview</b> | Mouse GDF-15, His Tag is expressed from E. coli cells. It contains AA Ser 189 - Ala 303 (Accession # Q9Z0J7-1). This protein carries a polyhistidine tag at the N-terminus. Predicted N-terminus: His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 189-303 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | Growth Differentiation Factor 15 (GDF-15), also called Macrophage Inhibitory Cytokine 1 (MIC-1). Expression of MIC-1 mRNA in monocytoid cells is up-regulated by a variety of stimuli associated with activation, including interleukin 1 $\beta$ , tumor necrosis factor $\alpha$ (TNF- $\alpha$ ), interleukin 2, and macrophage colony-stimulating factor but not interferon $\gamma$ , or lipopolysaccharide (LPS). It is highly expressed in cardiomyocytes, adipocytes, macrophages, endothelial cells, and vascular smooth muscle cells in normal and pathological condition. GDF-15 increases during tissue injury and inflammatory states and is associated with cardiometabolic risk. Increased GDF-15 levels are associated with cardiovascular diseases such as hypertrophy, heart failure, atherosclerosis, endothelial dysfunction, obesity, insulin resistance, diabetes, and chronic kidney diseases in diabetes. Increased GDF-15 level is linked with the progression and prognosis of the disease condition. |
| <b>Form</b>             | Lyophilized from 0.22 $\mu$ m filtered solution in 0.085%TFA 30%ACN with trehalose as                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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|                       |                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | protectant.                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>   | Immobilized Mouse GDF-15, His Tag at 1 µg/mL (100 µL/well) can bind Human GFR alpha-like, Fc Tag with a linear range of 0.3-10 ng/mL.                                                                                                                                                                                        |
| <b>Molecular Mass</b> | The protein has a calculated MW of 14.6 kDa. The protein migrates as 16-17 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).                                                                                                                                       |
| <b>Endotoxin</b>      | Less than 1.0 EU/µg by the LAL method/rFC method.                                                                                                                                                                                                                                                                            |
| <b>Purity</b>         | >90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Gdf15 growth differentiation factor 15 [ Mus musculus ]                                                                                 |
| <b>Official Symbol</b> | GDF15                                                                                                                                   |
| <b>Synonyms</b>        | GDF15; growth differentiation factor 15; growth/differentiation factor 15; GDF-15; macrophage inhibiting cytokine-1; SBF; MIC-1; NAG-1; |

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|----------------|-----------|
| Gene ID        | 23886     |
| mRNA Refseq    | NM_011819 |
| Protein Refseq | NP_035949 |
| UniProt ID     | Q9Z0J7    |

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