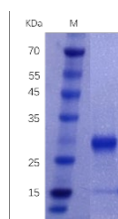


## Specification

<b>Product name:</b>	Recombinant human GDF-15 antigen
<b>Source:</b>	E.coli derived
<b>Accession #:</b>	Q99988
<b>SDS-PAGE:</b>	25-35 kDa, homo-dimer
<b>Construction:</b>	Ala197-Ile308 with 6His tag at N-terminal
<b>Predicted Molecular Mass:</b>	12.3 kDa
<b>Activity:</b>	Immunoreactivity was confirmed by reacting with monoclonal antibodies specific to human GDF-15 .
<b>Application:</b>	ELISA, immunology, others unspecified.
<b>Form:</b>	Liquid
<b>Formulation:</b>	10mM NaAc, pH4.0.
<b>Stability &amp; Storage:</b>	Stable at -80°C
<b>Shipping condition:</b>	The product is shipped on ice pack.Upon receiving, store it immediately at the recommended temperature.
<b>Conc. Determined:</b>	BCA
<b>Purity:</b>	>90%

## SDS-PAGE



Greater than 90% as determined by reducing SDS-PAGE. (QC verified).

## BACKGROUND

Growth Differentiation Factor 15 (GDF-15), also called Macrophage Inhibitory Cytokine 1 (MIC-1), Placental Transforming Growth Factor beta, Prostate-derived Factor, and Placental Bone Morphogenetic Protein, is a divergent member of the TGF-beta superfamily. Similar to other TGF-beta family proteins, the GDF-15 proprotein is cleaved at a dibasic cleavage site (RxxR) to release the mature protein. The C-terminal domain of GDF-15 contains seven characteristic conserved cysteine residues necessary for the formation of the cysteine knot and the single interchain disulfide bond. Biologically active GDF-15 is a disulfide-linked homodimer of the mature protein and signals through the heterodimeric receptor composed of TGF-beta RI/ALK-5 and TGF-beta RII. GDF-15 has been shown to have various functions, including inhibition of TNF-alpha production from lipopolysaccharide-stimulated macrophages and the induction of cartilage formation. GDF-15 also promotes neuronal survival, and hypothalamic expression of GDF-15 causes appetite suppression via modulation of Neuropeptide Y and Pro-opiomelanocortin levels. GDF-15 is cardioprotective via inhibition of platelet activation, limiting atherosclerosis, inhibiting CXCL1-induced neutrophil adhesion, regulating angiogenesis, and inhibiting norepinephrine-induced myocardial hypertrophy.

### References:

- 1.Data indicate that LINC01133 inhibited OSCC metastasis via a feedback regulation loop of reciprocal inhibition with GDF15. PMID: 30332510
- 2.Our results provide valuable evidence that GDF15 is related with first-line chemo-resistance, with highly expressed
- 3.GDF15 being a strong and an independent indicator of shorter PFS in EOC patients. PMID: 29580231
- 4.Placenta and appetite genes GDF15 and IGFBP7 are associated with hyperemesis gravidarum. PMID: 29563502
- 5.These results suggest that upregulation of NAG-1 contributes to trichostatin A-induced apoptosis in human endometriotic stromal cells. PMID: 29157123
- 6.GDF-15 is a promising biomarker for prediction of HF and death due to CHD in the general population, which may provide prognostic information to already established clinical biomarkers. PMID: 29771963.