



Recombinant Human GDF-15 (MIC-1)

20190725BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-338
Size:	20 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	9518
Synonyms:	GDF15; PDF; MIC1; PLAB; MIC-1; NAG-1; PTGFB; GDF-15

GDF-15 belongs to the TGF- β cytokine family, whose members play an important role during prenatal development and postnatal growth, and the remodeling and maintenance of a variety of tissues and organs. GDF-15 is expressed predominantly in the placenta and, to a much lesser extent, in various other tissues. The presence of GDF-15 in amniotic fluid and its elevated levels in the sera of pregnant women suggest GDF-15's involvement in gestation and embryonic development. GDF-15 generally exerts tumor suppressive activities and is one of the predominant factors produced and secreted in response to activation of the p53 pathway. Interestingly, the serum level of GDF-15 is positively correlated with neoplastic progression of several tumor types, including certain colorectal, pancreatic, and prostate cancers. Recombinant Human GDF-15/MIC-1 is a disulfide linked homodimeric protein consisting of two 112 amino acid polypeptide chains. The calculated molecular weight of Recombinant Human GDF-15/MIC-1 is 24.6 kDa.

Sequence

ARNGDHCPLG PGRCCRLHTV RASLEDLGWA DWVLSPREVQ
VTMCIGACPS QFRAANMHAQ IKTSLHRLKP DTVPAPCCVF
ASYNPMVLIQ KTDGTGVSLOT YDDLAKDCH CI

Database References

Protein RefSeq:	NP_004855.3
Uniprot ID:	Q99989
mRNA RefSeq:	NM_004865

Product Specifications

Expressed in	CHO
Purity	> 95% by SDS-PAGE & HPLC analyses
Structural Information	disulphide-linked homodimer
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	112
MW:	24.6 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 3 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to inhibit alkaline phosphatase activity in differentiating MC3T3/E1 osteoblast cells. The expected ED₅₀ for this effect is 75-200 ng/ml.