

# Active Native Human GDF15 Protein

**Cat. No.** GDF15-27680TH    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b> | Native Human GDF15 Protein was purified from Cell Culture.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | GDF-15 belongs to the TGF- $\beta$ cytokine family whose members play an important role during prenatal development and postnatal growth, remodeling and maintenance of a variety of tissues and organs. GDF-15 is expressed predominantly in 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 a role for GDF-15 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. Human GDF-15/MIC-1 is a disulfide linked homodimeric protein consisting of two 114 amino-acid polypeptide chains. |
| <b>Form</b>             | Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM sodium citrate, pH 3.0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Bio-activity</b>     | Determined by its ability to inhibit alkaline phosphatase activity in differentiating MC3T3/E1 osteoblast cells. The expected ED50 for this effect is 1.0-3.0 $\mu$ g/ml.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>AA Sequence</b>      | ARNGDHCPL GPGRCCRLH TVRASLEDL GWADWVLSP REVQVTMCI<br>GACPSQFRA ANMHAQIKT SLHRLKPDV VPAPCCVPA SYNPMVLIQ KTDGTGVSQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | TYDDLLAKD CHCI                                                                                                                                                                                                                                                                                          |
| <b>Endotoxin</b>      | < 1EU per 1g (determined by the LAL method)                                                                                                                                                                                                                                                             |
| <b>Purity</b>         | Above 95% as determined by SDS-PAGE Analysis.                                                                                                                                                                                                                                                           |
| <b>Storage</b>        | Store at -20 centigrade                                                                                                                                                                                                                                                                                 |
| <b>Reconstitution</b> | Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. 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 centigrade to -80 centigrade. |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | GDF15 growth differentiation factor 15 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                |
| <b>Official Symbol</b> | GDF15                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Synonyms</b>        | GDF15; growth differentiation factor 15; growth/differentiation factor 15; MIC 1; MIC1; NAG 1; PDF; PLAB; prostate differentiation factor; PTGFB; NRG-1; PTGF-beta; placental TGF-beta; NSAID-activated gene 1 protein; NSAID-regulated gene 1 protein; macrophage inhibitory cytokine 1; placental bone morphogenetic protein; NSAID (nonsteroidal anti-inflammatory drug)-activated protein 1; MIC-1; NAG-1; GDF-15; |
| <b>Gene ID</b>         | 9518                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>mRNA Refseq</b>     | NM_004864                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Protein Refseq</b>  | NP_004855                                                                                                                                                                                                                                                                                                                                                                                                              |

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| MIM | 605312 |
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| UniProt ID | Q99988 |
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