

32-6371: GDF7 Human

Application : Functional Assay

Alternative Name : Growth Differentiation Factor 7, GDF-7, Growth/Differentiation Factor 7, BMP12, GDF7.

Description

Source: Escherichia Coli.

Sterile Filtered White lyophilized (freeze-dried) powder.

Growth Differentiation Factor-7 (GDF-7) belongs to the BMP family of TGF- β superfamily proteins. GDF7 elicits its bioactivity via a heterodimeric receptor complex comprised of a type I (BMPRII) and a type II (BMPRI or Activin RII) serine/threonine kinase receptor. GDF7 signaling results in the phosphorylation and activation of Smad proteins. GDF-7 is also involved in tendon and ligament formation and repair. In addition, GDF7 regulates bone formation, mesenchymal stem cell differentiation, neuronal differentiation, and axon guidance.

GDF7 Human Recombinant (322-450) produced in E.Coli is a disulfide-linked homodimeric, non-glycosylated, polypeptide chain containing 129 amino acids and having a molecular mass of 28kDa. The GDF-7 is purified by proprietary chromatographic techniques.

Product Info

Amount : 2 μ g / 10 μ g

Purification : Greater than 95.0% as determined by SDS-PAGE.

Lyophilized from a 0.2 μ m filtered solution in HCl.

Content : It is recommended to reconstitute the lyophilized GDF-7 in sterile 18M-cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Storage condition : Lyophilized GDF7 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GDF-7 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Amino Acid : TALAGTRTAQ GSGGGAGRGH GRRGRSRCSR KPLHVDFKEL GWDDWIIAPL DYEAYHCEGL
CDFPLRSHLE PTNHAIQTL LNSMAPDAAP ASCCVPARLS PISILYIDAA NNVVYKQYED MVVEACGCR.

Application Note

The ED₅₀, as determined by inducing alkaline phosphatase production by mouse ATDC5 cells, is less than 1.25 μ g/ml.