

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 (BMPRII 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.

Content : Lyophilized from a 0.2 μ m filtered solution in HCl.

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.