

32-6372: GDF7 Mouse

Application : Functional Assay
Alternative Name : Growth/differentiation factor 7, GDF-7, 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 Mouse Recombinant produced in E.coli is a non-glycosylated disulfide linked homodimer containing 2 chains of 146 amino acids and having a molecular mass of 29.8kDa. 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: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
GDF7 protein was lyophilized from a 0.2 μ m filtered concentrated solution in 30% Acetonitrile and 0.1% TFA.
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 : TALAGTRGAQ GSGGGGGGGG GGGGGGGGGG GGAGRGHGRR GRSRCSRKSL HVDFKELGWD
DWIIAPLDYE AYHCEGVCDF PLRSHLEPTN HAIQTLLNS MAPDAAPASC CVPARLSPIS ILYIDAANNV
VYKQYEDMVV EACGCR.

Application Note

The ED50 as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 0.5 μ g/ml, corresponding to a specific activity of > 2000 IU/mg.