
Product Data Sheet

Product Name: GDF7 Mouse
 Cat. No.: GP20310
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Growth/differentiation factor 7; GDF-7; Gdf7.		
Amino Acid Sequence	TALAGTRGAQ GSGGGGGGGG GGGGGGGGGG GGAGRGHGRR GRSRCSRKSL HVDFKELGWD DWIIAPLDYE AYHCEGVCDF PLRSHLEPTN HAIQTLNLS MAPDAAPASC CVPARLSPIS ILYIDAANNV VYKQYEDMVV EACGCR.		
Solubility	It is recommended to reconstitute the lyophilized GDF-7 in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	GDF7 protein was lyophilized from a 0.2µm filtered concentrated solution in 30% Acetonitrile and 0.1% TFA.		

Introduction

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.

Biological Activity

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

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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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.

Background

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.

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