
Product Data Sheet

Product Name: GDF7 Human
 Cat. No.: GP20309
 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; Growth/Differentiation Factor 7; BMP12; GDF7.		
Amino Acid Sequence	TALAGTRTAQ GSGGGAGRGH GRRGRSRCR KPLHVDFKEL GWDDWIIAPL DYEAYHCEGL CDFPLRSHLE PTNHAIQTL LNSMAPDAAP ASCCVPARLS PISILYIDAA NNVVYKQYED MVVEACGCR.		
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	Lyophilized from a 0.2µm filtered solution in HCl.		

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 (BMPR-IB) and a type II (BMPR-II 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 by mouse ATDC5 cells, is less than 1.25µg/ml.

Stability

Lyophilized GDF7 although stable at room temperature for 3 weeks, should be stored

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

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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 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.

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