
Product Data Sheet

Product Name: GDF5 Human
 Cat. No.: GP20305
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Cartilage-derived morphogenetic protein-1; CDMP-1; LAP4; SYNS2; GDF-5; Radotemin; CDMP1; GDF5; Growth differentiation factor 5; BMP-14.		
Amino Acid Sequence	APSATRQGKR PSKNLKARCS RKALHVNFKD MGWDDWIIAP LEYEAHFHCEG LCEFPLRSHL EPTNHAVIQT LMNSMDPEST PPTCCVPTRL SPISILFIDS ANNVYKQYE DMVVEGCGCR.		
Solubility	It is recommended to reconstitute the lyophilized Growth Differentiation Factor-5 in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized without any additives.		

Introduction

GDF-5 is a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site which is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Mutations in this gene are associated with acromesomelic dysplasia, Hunter-Thompson type; brachydactyly, type C; and chondrodysplasia, Grebe type. These associations confirm that the gene product plays a role in skeletal development.

Biological Activity

GDF-5 activity as determined by the induction of alkaline phosphatase activity in ATDC5 cells is typically 10-20ng/ml.

Stability

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

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Lyophilized Growth Differentiation Factor 5 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Growth Differentiation Factor-5 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

Growth Differentiation Factor 5 Human Recombinant produced in E.Coli is a homodimer, non-glycosylated polypeptide chain containing 2 x 120 amino acids and having a total molecular mass of 27.4kDa. To enable bacterial expression the N-terminal sequence of Ala-Pro-Leu-Thr was replaced with a Lys. GDF5 is purified by proprietary chromatographic techniques.

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