

## 32-1242: GDF5 Recombinant Protein

**Alternative Name :** Cartilage-derived morphogenetic protein-1,CDMP-1,LAP4,SYNS2,GDF-5,Radotermin,CDMP1,GDF5,Growth differentiation factor 5,BMP-14.

### Description

Source : Escherichia Coli. 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. 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.

### Product Info

**Amount :** 50 µg  
**Purification :** Greater than 98.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.  
**Content :** The protein was lyophilized without any additives.  
**Storage condition :** 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.  
**Amino Acid :** APSATRQGKR PSKNLKARCS RKALHVNFKD MGWDDWIIAP LEYEAHFCEG LCEFPLRSHL EPTNHAVIQT LMNSMDPEST PPTCCVPTRL SPISILFIDS ANNVVYKQYE DMVVESCGCR.

### Application Note

It is recommended to reconstitute the lyophilized Growth Differentiation Factor-5 in sterile 18MΩ $\square$ cm H<sub>2</sub>O not less than 100Å $\square$ µg/ml, which can then be further diluted to other aqueous solutions. GDF-5 activity as determined by the induction of alkaline phosphatase activity in ATDC5 cells is typically 10-20ng/ml.

