

# Recombinant Human Growth Differentiation Factor 5, His-tagged

**Cat. No.** GDF-5300H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human GDF5 produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 141 amino acids (382-501 aa) and having a total molecular mass of 15.8 kDa. GDF5 is fused to a 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	382-501 a.a.
<b>Description</b>	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.
<b>Amino Acid Sequence</b>	MGSSHHHHHH SGLVPRGSH MAPLATRQ GK RPSKNLKARC SRKALHVNFK DMGWDDWIIA PLEYEAFHCE GLCEFPLRSH LEPTNHAVIQ TLMNSMDPES TPPTCCVPTR LSPISILFID SANNVYKQY EDMVVESCGC R

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Purity</b>	Greater than 95.0% as determined by SDS-PAGE.
<b>Physical Appearance</b>	Sterile Filtered colorless solution.
<b>Formulation</b>	The GDF5 solution contains 10mM sodium citrate pH3.5 and 10% glycerol.
<b>Stability</b>	GDF5 although stable 4°C for 4 weeks, should be stored desiccated 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.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">GDF5 growth differentiation factor 5 [ Homo sapiens ]</a>
<b>Synonyms</b>	GDF5; Growth Differentiation Factor 5; OS5; LAP4; BMP14; CDMP1; SYNS2; cartilage-derived morphogenetic protein-1; OTTHUMP00000030755; CDMP-1; GDF-5; Radotermin; BMP-14; OTTHUMP00000061644
<b>Gene ID</b>	<a href="#">8200</a>
<b>mRNA Refseq</b>	<a href="#">NM_000557</a>
<b>Protein Refseq</b>	<a href="#">NP_000548</a>
<b>MIM</b>	<a href="#">601146</a>
<b>UniProt ID</b>	<a href="#">P43026</a>
<b>Chromosome Location</b>	20q11

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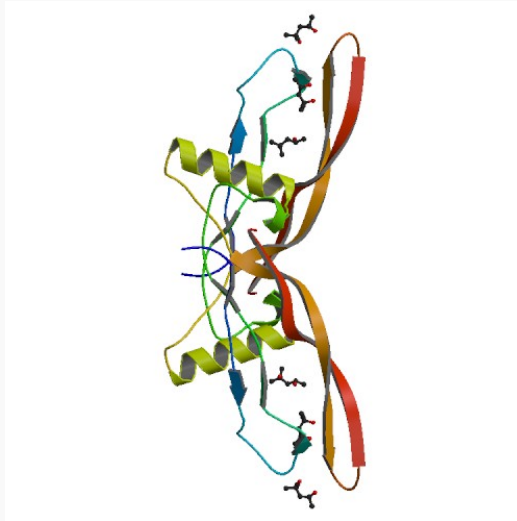
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**Pathway** Cytokine-cytokine receptor interaction; TGF-beta signaling pathway

**Function** cytokine activity; growth factor activity; protein binding

**PDB rendering based  
on 1waq.**



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