

## Product datasheet for **TP723134**

### GDF 5 (GDF5) (NM\_000557) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human growth differentiation factor 5 (GDF5).
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	APSATRQGKR PSKNLKARCS RKALHVNFKFA PSATRQGKRP SKNLKARCSR KALHVNFKDM GWDDMGWDDW IIAPLEYEAF HCEGLCEFPL RSHLEPTNHA VIQTLMNSMD PESTPPTCCV PTRLSPI SIL FIDSANNVWY KQYEDMWVES CGCR
Tag:	Tag Free
Predicted MW:	27 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a 0.2 $\mu$ M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bioactivity:	ED50 was determined by its ability to induce alkaline phosphatase production by ATDC-5 chondrogenic cells is 1.0-2.0 $\mu$ g/ml.
Endotoxin:	Endotoxin level is < 0.1 ng/ $\mu$ g of protein (< 1 EU/ $\mu$ g)
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="#">NP_000548</a>
Locus ID:	8200
UniProt ID:	<a href="#">P43026</a> , <a href="#">F1T0J1</a>
RefSeq Size:	2344
Cytogenetics:	20q11.22
RefSeq ORF:	1503
Synonyms:	BDA1C; BMP-14; BMP14; CDMP1; DUPANS; LAP-4; LAP4; OS5; SYM1B; SYNS2



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<b>Summary:</b>	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein regulates the development of numerous tissue and cell types, including cartilage, joints, brown fat, teeth, and the growth of neuronal axons and dendrites. Mutations in this gene are associated with acromesomelic dysplasia, brachydactyly, chondrodysplasia, multiple synostoses syndrome, proximal symphalangism, and susceptibility to osteoarthritis. [provided by RefSeq, Aug 2016]
<b>Protein Families:</b>	Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, TGF-beta signaling pathway