

## Recombinant Human GDF5 protein

**Cat. No.** GDF5-34H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human GDF5 protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	120
<b>Description</b>	Growth/differentiation factors (GDF-1 to GDF-15) are members of the BMP family of TGF-beta superfamily proteins. They are produced as inactive preproteins which are then cleaved and assembled into active secreted homodimers. GDF dimers are disulfide-linked with the exception of GDF-3 and -9. GDF proteins are important during embryonic development, particularly in the skeletal, nervous, and muscular systems.
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 1.0 µg/ml, corresponding to a specific activity of > 1000 IU/mg.
<b>Molecular Mass</b>	Approximately 27.1 kDa, a disulfide-linked homodimeric protein containing two 120 amino acids.

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<b>AA Sequence</b>	APLATRQGKRPSKNLKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPL RSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTRLSPISILFIDSANNVYKQYEDMVV ESCGCR
<b>Endotoxin</b>	Less than 0.1 EU/g of rHuGDF-5/BMP-14 as determined by LAL method.
<b>Purity</b>	>95% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

<b>Gene Name</b>	<b>GDF5</b>
<b>Official Symbol</b>	<b>GDF5</b>
<b>Synonyms</b>	GDF5; growth differentiation factor 5; growth/differentiation factor 5; BMP14; cartilage derived morphogenetic protein 1; CDMP1; GDF-5; CDMP-1; radotermin; cartilage-derived morphogenetic protein-1; OS5; LAP4; SYNS2;
<b>Gene ID</b>	<b>8200</b>

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mRNA Refseq	NM_000557
Protein Refseq	NP_000548
MIM	601146
UniProt ID	P43026

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