Recombinant Human GDF5 protein

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

SPECIFICATION

Product Overview	Recombinant Human GDF5 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	120
Description	Growth/differentiation factors (GDF-1 to GDF-15) are members of the BMP family of TGF-beta superfamily proteins. They are produced as inactive preproproteins 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.
Form	Lyophilized from a 0.2μm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
Bio-activity	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.
Molecular Mass	Approximately 27.1 kDa, a disulfide-linked homodimeric protein containing two 120 amino acids.

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AA Sequence	APLATRQGKRPSKNLKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPL RSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTRLSPISILFIDSANNVVYKQYEDMVV ESCGCR
Endotoxin	Less than 0.1 EU/μg of rHuGDF-5/BMP-14 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	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.
Reconstitution	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

Gene Name	GDF5
Official Symbol	GDF5
Synonyms	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;
Gene ID	8200

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mRNA Refseq	NM_000557
Protein Refseq	NP_000548
MIM	601146
UniProt ID	P43026

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