

Recombinant Human GDF7 protein

Cat. No. GDF7-28992TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human GDF7 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	129
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 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.
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 28.0 kDa, a disulfide-linked homodimeric protein containing two 129 amino acids.

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

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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

AA Sequence	TALAGTRTAQGSGGGAGRGHGRRGRSRCSRKPLHVDFKELGWDDWIIAPLDYEAY HCEGLCDFPLRSHLEPTNHAIQTLNMAPDAAPASCCVPARLSPISILYIDAANNV YKQYEDMVVEACGCR
Endotoxin	Less than 0.1 EU/g of rHuGDF-7/BMP-12 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	GDF7
Official Symbol	GDF7
Synonyms	GDF7; growth differentiation factor 7; growth/differentiation factor 7; BMP12; GDF-7;
Gene ID	151449
mRNA Refseq	NM_182828

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Protein Refseq	NP_878248
MIM	604651
UniProt ID	Q7Z4P5

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