

Recombinant Human BMP7 protein

Cat. No. BMP7-03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BMP7 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	139
Description	Bone Morphogenetic Protein 7 is one of the BMPs, some of which belong to the TGF-beta superfamily (BMP2-7). There are more than thirteen BMPs have been discovered nowadays and they are involved in inducing cartilage and bone formation. BMP-7 is mainly expressed in kidney and bladder. It is also present in developing eyes, brain and ear during embryogenesis. BMP-7 also named osteogenic protein-1 (OP-1) is a potent osteoinductive cytokine and plays role in osteoblast differentiation, SMAD1 production and renal development and repair. Human BMP-7 is synthesized with a signal sequence (29 a.a.), a propeptide (263 a.a.), and a growth factor domain (139 a.a.). The growth factor domain of human BMP-7 shares 98 % a.a. sequence identity with mouse and rat BMP-7.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 30 % acetonitrile, 0.1 % TFA.
Molecular Mass	Approximately 15.7 kDa, a monomeric, non-glycosylated polypeptide chain containing 139 amino acids.

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AA Sequence	STGSKQRSQNRSKTPKNQEALRMANVAENSSSDQRQACKKHELYVSFRDLGWQD WIIAPEGYAAYYCEGECAFLNSYMNATNHAIVQTLVHFINPETVPKPCCAPTQLNAI SVLYFDDSSNVILKKYRNMVVRACGCH
Endotoxin	Less than 1 EU/μg of rHuBMP-7 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Applications	Molecular standard (Western, ELISA) in studying secreted BMP-7; Preparing antibodies for BMP-7 monomer; Molecule standard in detecting secreted BMP-7 in reduced SDS-PAGE.
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 10 mM HAc 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	BMP7
Official Symbol	BMP7
Synonyms	BMP7; bone morphogenetic protein 7; OP 1; osteogenic protein 1; BMP-7; OP-1;
Gene ID	655

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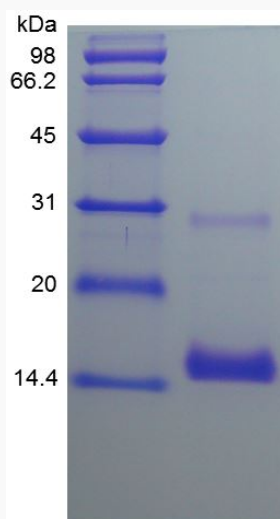
mRNA Refseq [NM_001719](#)

Protein Refseq [NP_001710](#)

MIM [112267](#)

UniProt ID [P18075](#)

SDS-PAGE of BMP7-03H



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