

Bone Morphogenetic protein-7 Recombinant Protein | BMP-7 recombinant protein

Human Bone Morphogenetic protein-7 Recombinant

CATALOG #	HOST
AAA76056	N/A (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Bone Morphogenetic protein-7; Human Bone Morphogenetic protein-7 Recombinant; bmp7; bmp-7; op1; BMP-7 recombinant protein

PRODUCT SPECIFICATIONS

Host	N/A (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant BMP-7 was lyophilized from a 0.2 um filtered PBS solution pH 7.4.
Sequence	MHVRSLRAAA PHSFVALWAP LFLRLSALAD FSLDNEVHSS FIHRLRSQE RREMQREILS ILGLPHRPRP HLQGKHNSAP MFMLDLYNAM AVEEGGGPGG QGFSYPYKAV FSTQGPPLAS LQDSHFLTDA DMVMSFVNLV EHDKEFFHPR YHHREFRFDL SKIPEGEAVT AAEFRIYKDY IRERFDNETF RISVYQLQE HLGRESDLFL LDSRTLWASE EGWLVDITA TSNHWVNPV HNLGLQLSVE TLDGQSINPK LAGLIGRHGP QNKQPFMVAE FKATEVHFRS IRSTGSKQRS QNRSKTPKNQ EALRMANVAE NSSSDQRQAC KKHLYVVSFR DLGWQDWIIA PEGYAAYCE GECAFLNSY MNATNHAIVQ TLVHFNPET VPKPCCAPTQ LNAISVLYFD DSSNVILKKY RNMVVRACGC H
Sequence Length	431
Source	Optimized DNA sequence encoding Human Bone Morphogenetic protein-7 mature chain was expressed in E. coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Molecular Weight Note	Native human BMP-7 is generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 17 kDa. Recombinant BMP-7 is a disulfide-linked homodimeric protein consisting of two 139 amino acid residue subunits, and migrates as an approximately 30 kDa protein under reducing conditions in SDS-PAGE.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for BMP-7 recombinant protein	BMP-7 (osteogenic protein- 1) is produced in the kidney and in the nervous system. It is produced also by human fetal trophoblasts in vivo and may be involved in the regulation of the synthesis of chorionic gonadotropin and progesterone by trophoblasts. BMP7 induces new bone growth, and forms heterodimers with BMP2A. The factor is a member of the TGF family of proteins.
Product Categories/Family for BMP-7 recombinant protein	Cytokines

References	• differential regulation of e-cadherin and -smooth muscle actin by bmp 7 in human renal proximal tubule epithelial cells and its implication in renal fibrosis. <i>.Am J Physiol Renal Physiol</i>, Sep 2009; 10.1152/ajprenal.90539.2008. • heparin cross-linked collagen coated tcp/ha granules as a carrier for BMP-7 .<i>J Bone Joint Surg Br Proceedings</i>, Sep 2009; 91-B: 445. • BMP-7 fails to attenuate <i>tgf-β1</i>-induced epithelial-to-mesenchymal transition in human proximal tubule epithelial cells .<i>Nephrol. Dial. Transplant.</i>, May 2009; 24: 1406 - 1416. • <i>the treatment of recalcitrant long bone non-unions with bone morphogenetic protein-7 (BMP-7)</i> .<i>J Bone Joint Surg Br Proceedings</i>, May 2009; 91-B: 268. • BMP-7 induces wound healing without neovascularization and opacification in a corneal alkali injured mouse model .<i>Invest. Ophthalmol. Vis. Sci.</i>, Apr 2009; 50: 4549.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502427
NCBI GeneID	655
NCBI Accession #	NP_001710.1
NCBI GenBank Nucleotide #	NM_001719.2
UniProt Accession #	P18075; Q9H512; Q9NTQ7; Q9H2W7; Q9NQQ8
NCBI Official Full Name	bone morphogenetic protein 7
UniProt Protein Name	Bone morphogenetic protein 7
UniProt Gene Name	BMP7
UniProt Synonym Gene Names	OP1; BMP-7; OP-1
UniProt Entry Name	BMP7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.