

Active Recombinant Human Bone Morphogenetic Protein 1, His-tagged

Cat. No. BMP1-571H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BMP1 protein was expressed in Murine myeloma cell line with a C-terminal 6-His tag. Ala121-Gln730.
Species	Human
Source	Mammalian Cells
Protein Length	121-730 a.a.
Description	Bone morphogenetic protein 1 (BMP1), also known as procollagen C proteinase (PCP), is a zinc protease of the astacin family. BMP1/PCP plays a key role in formation of extracellular matrix (ECM) by converting precursor proteins into their mature and functional forms. The precursor proteins identified as substrates for BMP1/PCP include collagens, biglycan, laminin 5, dentin matrix protein 1, and lysyl oxidase. There are six alternatively spliced forms known to be derived from the BMP1 gene, and isoform 1 consisting of residues 1 to 730 was expressed.
Form	Lyophilized from a 0.2 µm filtered solution in HEPES, NaCl, CaCl ₂ , ZnCl ₂ and Brij-35.
N-terminal Sequence	Ala121
Molecular Weight	70.5 kDa
Activity	Measured by its ability to cleave a fluorogenic peptide substrate, Mca-YVADAPK

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	(Dnp)-OH. The specific activity is > 4 pmol/min/μg, as measured under the described conditions.
Endotoxin Level	< 1.0 EU per 1 μg of the protein by the LAL method.
SDS-PAGE	84 kDa, reducing conditions.
Purity	> 95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Reconstitution	100 μg/mL in sterile 25 mM HEPES and 0.01% Brij-35, pH 7.5.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70°C as supplied. 3 months, -20 to -70°C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	BMP1 bone morphogenetic protein 1 [Homo sapiens]
Official Symbol	BMP1
Synonyms	BMP1; bone morphogenetic protein 1; procollagen C-proteinase; mammalian tolloid protein; procollagen C-endopeptidase; BMP-1; PCP; PCOLC; mTld; EC 3.4.24.19
Gene ID	649
mRNA Refseq	NM_001199
Protein Refseq	NP_001190
MIM	112264

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UniProt ID	P13497
Chromosome Location	8p21
Pathway	Adipogenesis;HDL-mediated lipid transport; Lipid digestion; Lipoprotein metabolism;Metabolism; Metabolism of lipids and lipoproteins
Function	calcium ion binding;cytokine activity; growth factor activity; metal ion binding;metalloendopeptidase activity; metallopeptidase activity; peptidase activity;zinc ion binding
PDB rendering based on 3edg.	