

Bone Morphogenetic protein-2 Recombinant Protein | BMP-2 recombinant protein

Human Bone Morphogenetic protein-2 Recombinant

CATALOG #	HOST
AAA76060	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Bone Morphogenetic protein-2; Human Bone Morphogenetic protein-2 Recombinant; bmp2; bone morphogenetic protein; bmp-2; BMP-2 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli (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
Sequence Length	396
Source Note	Optimized DNA sequence encoding Human Bone Morphogenetic Protein-2 mature chain was expressed in Escherichia Coli.
Molecular Weight Note	Native human Bone Morphogenetic Protein-2 is generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 13 kDa. Recombinant BMP-2 is a disulfide-linked homodimeric protein consisting of two 115 amino acid residue subunits. BMP2 migrates as an approximately 25 kDa protein under non-reducing conditions and as a 13 kDa protein under reducing conditions in SDS-PAGE.
Biological Activity	The ED(50) was determined by its ability to induce alkaline phosphatase production by C2C12 myogenic cells. Cells were found to be less than 50 ng/ml.
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).
Presentation	Recombinant Human Bone Morphogenetic Protein-2 was lyophilized from a 0.2 um filtered solution in 20mM AcOH pH 6.5.
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.
Preparation and Storage	The lyophilized protein is stable for 1 year from date of receipt at -20° C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° - 8° C for one month, or at -20° C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Product Categories/Family for BMP-2 recombinant protein	Cytokines
References	• recombinant human bmp-2 enhances local bone formation in the lumbar spine of osteoporotic sheep .J Bone Joint Surg Br Proceedings, Sep 2009; 91-B: 436. • remodeling of chromatin structure within the promoter is important for bmp-2-induced <i>fgfr3</i> expression .Nucleic Acids Res., Jul 2009; 37: 3897 - 3911. • bmp-2 is a cost-effective therapy in grade iii open tibia fractures – a health-economic assessment of the use bmp-2 in open tibia fractures for european health care systems .J Bone Joint Surg Br Proceedings, Mar 2009; 91-B: 155. • activation of amp kinase and inhibition of rho kinase induce the mineralization of osteoblastic mc3t3-e1 cells through endothelial nos and bmp-2 expression .Am J Physiol Endocrinol Metab, Jan 2009; 296: E139 - E146. • irbesartan attenuates ang ii-induced bmp-2 expression in human umbilical vein endothelial cells .Vascular Medicine, Aug 2008; 13: 239 - 245.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557369
NCBI GeneID	650
NCBI Accession #	NP_001191.1
NCBI GenBank Nucleotide #	NM_001200.2
UniProt Accession #	P12643
NCBI Official Full Name	bone morphogenetic protein 2 preproprotein
UniProt Protein Name	Bone morphogenetic protein 2
UniProt Gene Name	BMP2
UniProt Synonym Gene Names	BMP2A; BMP-2; BMP-2A
UniProt Entry Name	BMP2_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.

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Online datasheet: <https://www.aaabiotech.com/bmp2-recombinant-protein-e-coli/76060>