

Recombinant Human Bone Morphogenetic Protein 2

Cat. No. BMP2-35H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Bone Morphogenetic protein-2 produced in E.Coli is a homodimeric, non-glycosylated, Polypeptide chain containing 115 amino acids and having a molecular mass of 26018 Dalton.
Species	Human
Source	E.coli
ProteinLength	283-396 aa
Description	BMP-2 belongs to the Bone-growth regulatory factors that are members of the transforming growth factor-beta (TGF-beta) superfamily of proteins. They are synthesized as large precursor molecules which are cleaved by proteolytic enzymes. The active form can consist of a dimer of two identical proteins or a heterodimer of two related bone morphogenetic proteins.
Form	BMP-2 was lyophilized from a concentrated (1mg/ml) sterile solution containing 10mM sodium citrate pH=3.0.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	BMP-2 is fully biologically active when compared to standard. The ED50 as determined by the cytolysis of MC3T3-E1 cells is less then 50 ng/ml.

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Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Purity Greater than 95% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPP PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTLSAISM LYLDENEKVV LKNYQDMVVE GCGCR
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
Pathways	BMP signaling pathway; Basal cell carcinoma; Cytokine-cytokine receptor interaction; Hedgehog signaling pathway; TGF-beta signaling pathway

GENE INFORMATION

Gene Name [BMP2 bone morphogenetic protein 2 \[Homo sapiens \]](#)

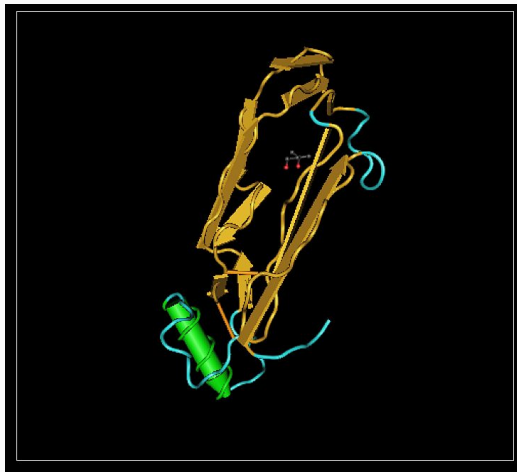
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Official Symbol	BMP2
Synonyms	BMP2; BMP2A; BMP-2; Bone morphogenetic protein 2 precursor; bone morphogenetic protein 5; BMP-2A; OTTHUMP00000016650
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261
UniProt ID	P12643
Chromosome Location	20p12
Function	Cytokine activity, Growth factor activity, Specific transcriptional repressor activity

PDBrendering based on 3bmp.



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