

Recombinant Human Bone Morphogenetic Protein-2

Cat. No. BMP2-22H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Bone Morphogenetic Protein-2 produced in CHO is a homodimeric, glycosylated, Polypeptide chain containing 115 amino acids and having a calculated molecular mass of 26018 Dalton. Due to its glycosilation, BMP-2 migrates on SDS-PAGE under non-reducing conditions at 36kDa and 18kDa under reducing conditions. The BMP-2 CHO derived protein is purified by proprietary chromatographic techniques.
Species	Human
Source	CHO
Description	BMP2 belongs to the transforming growth factor-beta (TGFB) superfamily. Bone morphogenic protein induces bone formation. BMP2 is a candidate gene for the autosomal dominant disease of fibrodysplasia (myositis) ossificans progressiva.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	1mcg of BMP-2 was lyophilized from a sterile solution containing 0.2% sucrose, 2.5% glycine, 0.01% tween-80, 0.01% NaCl and 3% mannitol.
Biological Activity	The ED ₅₀ as determined by cytolysis of ATDC-5 cell is less than 50ng/ml.
Solubility	It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-2 in sterile water at a concentration of 100g/ml, which can then be further diluted to other aqueous solutions.

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Purity	Greater than 95.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.
Stability	Lyophilized Bone Morphogenetic Protein-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
GENE INFORMATION	
Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Synonyms	BMP2A; BMP-2; Bone morphogenetic protein 2 precursor; bone morphogenetic protein 5; BMP-2A; OTTHUMP00000016650; BMP2
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261
UniProt ID	P12643
Chromosome Location	20p12
Pathway	BMP signaling pathway; Basal cell carcinoma; Cytokine-cytokine receptor interaction; Hedgehog signaling pathway; TGF-beta signaling pathway

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Function

Cytokine activity, Growth factor activity, Specific transcriptional repressor activity

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