

Active Recombinant Human BMP2

Cat. No. BMP2-23H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant, human bone morphogenetic protein-2(BMP-2) expressed in CHO cell and purified by proprietary chromatographic methods.
Species	Human
Source	CHO
Description	BMP-2 is a homodimeric protein that belongs to the transforming growth factor β (TGF- β) superfamily. BMP-2 is known to regulate diverse fundamental processes during embryonic development. BMP-2 have also been shown to regulate the growth, differentiation, chemotaxis and apoptosis of various cell types, including mesenchymal cells, epithelial cells, hematopoietic cells and neuronal cells.
Form	Lyophilized from a 0.2 μ m filtered solution in 0.2% sucrose, 2.5% Glycine, 0.01% polysorbate 80, 0.01% sodium chloride, 3% mannitol per 1 μ g of BMP-2.
Bio-activity	The ED50 as determined by cytolysis of ATDC-5 cell is less than 50 ng/ml.
Molecular Mass	The molecule has a calculated molecular mass of approximately 26 kDa. Due to glycosylation, rhBMP-2 migrates as an approximately 36 kDa protein under non-reducing conditions and as a 17 - 18 kDa protein under reducing conditions in SDS-PAGE.
Endotoxin	<0.5 eu per 1 μ g of bmp-2 as determined by the lal</0.5

 Tel: 1-631-559-9269 1-516-512-3133

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Purity	>95% as determined by SEC-HPLC and SDS-PAGE.
Storage	Lyophilized samples are stable for up to six months at -20° C to -70° C.
Reconstitution	Reconstitute to 100 µg/mL with sterile distilled water. Further dilutions can be made in aqueous buffers just prior to use.

GENE INFORMATION

Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Official Symbol	BMP2
Synonyms	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; bone morphogenetic protein 2A; BDA2;
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261
UniProt ID	P12643
Chromosome Location	20p12
Pathway	Adipogenesis, organism-specific biosystem; BMP Signalling Pathway, organism-specific biosystem; Basal cell carcinoma, organism-specific biosystem; Basal cell

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carcinoma, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Heart Development, organism-specific biosystem;

Function

BMP receptor binding; SMAD binding; activin receptor activity, type II; cytokine activity; growth factor activity; phosphatase activator activity; protein binding; protein domain specific binding; protein heterodimerization activity; protein homodimerization activity; receptor binding; retinol dehydrogenase activity; transmembrane receptor protein serine/threonine kinase activity;

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