

Active Recombinant Human BMP4 Protein, Animal Free

Cat. No. BMP4-04H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human BMP4 Protein without tag was expressed in Human cells. Animal Free and Xeno Free
Species	Human
Source	Human Cells
Description	Bone morphogenetic protein 4 (BMP-4) is a member of transforming growth factor β family that includes more than 20 structurally related bone growth factors. BMP-4 is widely expressed from early embryogenesis through adulthood. It plays an important role in cartilage and bone formation, mesoderm induction, tooth development, limb formation and fracture repair. Mature human BMP-4 is a 116 amino acids glycoprotein and normally found as a homodimer. Dimerization is facilitated by a disulfide bridge formed between the monomer, which contains three intrachain disulfide bridges arranged in a cystine knot motif. BMP-4 signals through tetrameric complexes composed of type I (primarily Activin RIA or BMPRIA) and type II (primarily Activin RIIA or BMPRII) receptors. The bioavailability of BMP-4 is regulated by its interaction with multiple proteins and glycosaminoglycans.
Bio-activity	The activity was measured by its ability to induce alkaline phosphatase production in the ATDC-5 cell line (Mouse chondrogenic cell line).
Molecular Mass	34-40 kDa
Endotoxin	<0.5 EU/

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	µg
Purity	High Purity, >95% by SDS-PAGE
Stability	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. In general: 12 months from date of receipt, -20 to -80 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -80 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS without carrier protein
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin.

GENE INFORMATION

Gene Name	BMP4 bone morphogenetic protein 4 [Homo sapiens (human)]
Official Symbol	BMP4
Synonyms	BMP4; bone morphogenetic protein 4; BMP2B; BMP-4; BMP-2B; bone morphogenetic protein 2B; ZYME; OFC11; BMP2B1; MCOPS6;
Gene ID	652
mRNA Refseq	NM_001202
Protein Refseq	NP_001193
MIM	112262

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UniProt ID

P12644

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