

Active Human BMP2

Cat. No. BMP2-30H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mature form of human BMP2 (NP_001191.1) (Gln283 - Arg396) was expressed.
Species	Human
Source	Human
ProteinLength	283-396 a.a.
Description	BMP2 is a member of the BMP subgroup belonging to the transforming growth factor superfamily. The mature BMP2 acts as disulfide-linked homodimers and heterodimers with BMP7 after proteolytic removal of propeptide. BMP2 is capable of inducing the formation of cartilage and bone but are now regarded as multifunctional cytokines.
Form	Supplied as a 0.2 µm filtered solution of 40% acetonitrile + 0.1% TFA.
Purity	> 98 % as determined by SDS-PAGE
Bio-activity	Measured by its ability to induce alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED50 for this effect is typically 0.5 - 0.9 µg / ml.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.

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Predicted N terminal	Met
Molecular Mass	The recombinant human BMP2 monomer consists of 115 amino acids and has a predicted molecular mass of 13 kDa. It migrates with the apparent molecular mass of 13 & 26 kDa corresponding to the monomer & homodimer in SDS-PAGE under reducing conditions.
Storage	Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.
Pathways	Adipogenesis; Basal cell carcinoma; Cytokine-cytokine receptor interaction; Heart Development; Hedgehog signaling pathway; Id Signaling Pathway; Pathways in cancer; Senescence and Autophagy; Signaling by BMP; TGF-beta signaling pathway

GENE INFORMATION

Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Official Symbol	BMP2
Synonyms	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; OTTHUMP00000030228; bone morphogenetic protein 2A; Bone morphogenetic protein 2; Bone morphogenetic protein 2A
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261

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UniProt ID	P12643
Chromosome Location	20p12
Function	receptor activity; protein binding; BMP receptor binding; activin receptor activity; growth factor activity; SMAD binding; cytokine activity; phosphatase activator activity; protein domain specific binding; protein heterodimerization activity; transforming growth factor beta receptor binding; transmembrane receptor protein serine/threonine kinase activity
PDBrendering based on 3bmp	