

# Active Recombinant Human BMP2 Protein (Gln283-Arg396), GMP Grade

**Cat. No.** BMP2-08HG    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	GMP recombinant human BMP-2 protein (Gln283-Arg396) without tag was expressed in Chinese Hamster Ovary cell line and manufactured and tested under current Good Manufacturing Practice (GMP) guidelines.
<b>Species</b>	Human
<b>Source</b>	CHO
<b>ProteinLength</b>	Gln283-Arg396
<b>Description</b>	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer, which plays a role in bone and cartilage development. Duplication of a regulatory region downstream of this gene causes a form of brachydactyly characterized by a malformed index finger and second toe in human patients.
<b>Form</b>	Disulfide-linked homodimer
<b>Bio-activity</b>	Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is 40-200 ng/mL. The specific activity of recombinant human BMP-2 is >5.0 x 10 <sup>5</sup> units/mg, which is

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	calibrated against the human BMP-2 WHO Standard.
<b>Molecular Mass</b>	Predicted Molecular Mass: 13 kDa (monomer) SDS-PAGE: 15-16, kDa, reducing conditions
<b>N-terminal Sequence Analysis</b>	Gln-Ala-Lys-His-Lys-Gln-Arg-Lys-Arg-Leu
<b>Endotoxin</b>	<0.10 EU/ µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE with silver staining, under reducing conditions.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. A minimum of 12 months when stored at ≤ -20 centigrade as supplied. Refer to lot specific COA for the Use by Date. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, ≤ -20 centigrade under sterile conditions after reconstitution.
<b>Storage Buffer</b>	Lyophilized from a 0.2 µm filtered solution in Glycine, Sucrose, Tween® 80 and Glutamic Acid.
<b>Reconstitution</b>	Reconstitute at 100 µg/mL in 4 mM HCl.
<b>Shipping</b>	The product is shipped with polar packs.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	<a href="#">BMP2 bone morphogenetic protein 2 [ Homo sapiens ]</a>
<b>Official Symbol</b>	<a href="#">BMP2</a>

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<b>Synonyms</b>	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; bone morphogenetic protein 2A; BDA2;
<b>Gene ID</b>	650
<b>mRNA Refseq</b>	NM_001200
<b>Protein Refseq</b>	NP_001191
<b>MIM</b>	112261
<b>UniProt ID</b>	P12643

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