

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

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	CHO
ProteinLength	Gln283-Arg396
Description	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.
Form	Disulfide-linked homodimer
Bio-activity	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 ⁵ units/mg, which is

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	calibrated against the human BMP-2 WHO Standard.
Molecular Mass	Predicted Molecular Mass: 13 kDa (monomer) SDS-PAGE: 15-16, kDa, reducing conditions
N-terminal Sequence Analysis	Gln-Ala-Lys-His-Lys-Gln-Arg-Lys-Arg-Leu
Endotoxin	<0.10 EU/ µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE with silver staining, under reducing conditions.
Storage	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.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in Glycine, Sucrose, Tween® 80 and Glutamic Acid.
Reconstitution	Reconstitute at 100 µg/mL in 4 mM HCl.
Shipping	The product is shipped with polar packs.

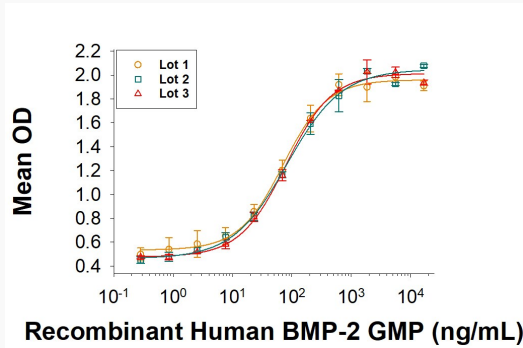
GENE INFORMATION

Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Official Symbol	BMP2

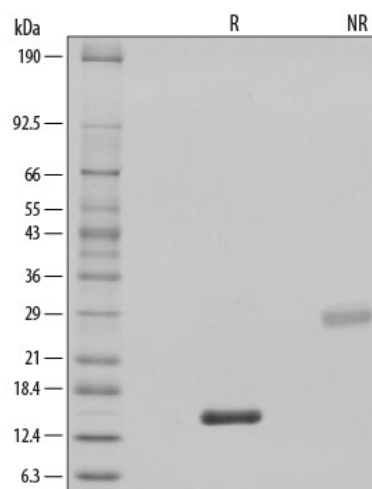
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Synonyms	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; bone morphogenetic protein 2A; BDA2;
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261
UniProt ID	P12643
Bioactivity	 Mean OD Recombinant Human BMP-2 GMP (ng/mL) Lot 1 Lot 2 Lot 3

SDS-PAGE



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