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Animal, Bacterial & Viral Free - Low Endotoxin - Ultra Pure - High BioActivity

BMP2

Recombinant Human Bone Morphogenetic Protein 2, BMP2, Endotoxin Free

Catalog No.	CRO506A	**Quantity:**	10 µg
	CRO506B		50 µg
	CRO506C		1 mg
	CRO506D		100 µg

Alternate Names: BMP-2A, BMP2A

Description: Human Bone Morphogenetic Protein 2 (BMP-2) is a member of the TGF-beta superfamily of cytokines that effect bone and cartilage formation. Human BMP-2 is a disulphide linked homodimeric protein. BMP-2 plays an important role in various processes during embryonic development, including induction of bone and cartilage growth and regeneration, cardiac cell differentiation and epithelial to mesenchymal transition. BMP2 promotes osteogenic and chondrogenic differentiation from mesenchymal cells, stem cells, and vascular smooth muscle cells. BMP-2 has great potentials for regenerative and medical therapeutic applications.

Gene ID: 650

UniProtKB: P12643

Source: Recombinant Human BMP-2 is produced in *Nicotiana tabacum* that is void of any human or animal viral contaminants that could jeopardize stem cell culture.

Molecular Weight: Recombinant human BMP-2 produced in transgenic tobacco plants is a homodimeric polypeptide of 114 aa with a MW of 26 kDa

Formulation: Lyophilized from a sterile solution of 25 mM MES, pH 6.0

Purity: > 95% by SDS-PAGE gel analysis.

Endotoxin Level: Endotoxin level is less than 0.005 ng per µg (0.05 EU/µg) as measured by kinetic LAL assay.

Biological Activity: ED_{50} < 100 ng/ml, determined by the dose dependent induction of alkaline phosphatase production by ATDC-5 mouse chondrogenic cells.

Specific Activity: > 1.0×10^4 U/mg

Reconstitution: **Centrifuge vial prior to opening**. Reconstitute the lyophilized protein in sterile water to a concentration of no less than 50 µg/ml. Due to the protein nature, dimers and multimers may be observed. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please note that the addition of any carrier protein into this product may introduce endotoxin. Depending upon the particular application employed, this may be undesirable.**

Storage & Stability: The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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