

Growth Factor Data Sheet

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Bone Morphogenetic Proteins (BMPs) belong to the TGF- β (Transforming Growth Factor) superfamily of structurally related signaling proteins. BMP2 is a potent osteoinductive cytokine, capable of inducing bone and cartilage formation in association with osteoconductive carriers such as collagen and synthetic hydroxyapatite. In addition, BMP2 plays an important role in cardiac morphogenesis and is expressed in a variety of tissues; including the lung, spleen, brain, liver, prostate, ovary and small intestine. The functional form of BMP2 is a 26kDa protein composed of two identical 115 amino acid polypeptide chains linked by a single disulfide bond.

Catalog Number	1180-02
Product Name	BMP2, Human Recombinant Human Bone Morphogenetic Protein 2 BMP2 BMP2a
Source	<i>Escherichia coli</i>
MW	~26.0 kDa (2x115 amino acid) (A homodimeric protein consisting of two 115 amino acid non-glycosylated polypeptide chains)
Sequence	MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR
Accession Number	P12643
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 200 ng/ml, corresponding to a specific activity of $>5.0 \times 10^3$ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions.