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# **Product Datasheet**

Product Name Human BMP 2

Cata No CB501619

Source Escherichia Coli
Synonyms BMP-2, BMP2A.

## **Description**

BMP2 belongs to the transforming growth factor-beta (TGFB) superfamily. Bone morphogenic protein induces bone formation. BMP2 is a candidate gene for the autosomal dominant disease of fibrodysplasia (myositis) ossificans progressiva. Bone Morphogenetic Protein-2 Human Recombinant produced in E.Coli is a homodimeric, non-glycosylated, Polypeptide chain containing 115 amino acids and having a molecular mass of 26018 Dalton.

The BMP-2 is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### **Purity**

Greater than 95.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

#### **Formulation**

BMP2 was lyophilized from a concentrated (1mg/ml) sterile solution containing 10mM sodium citrate pH=3.5.

## Reconstitution

It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-2 in sterile 100mM AcOH (acetic Acid) not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

#### **Stability**

Lyophilized Bone Morphogenetic Protein-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## **Biological Activity**

The ED50 as determined by the cytolysis of MC3T3-E1 cells is < 50 ng/ml corresponding to a Specific Activity of 20,000IU/mg.

## Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Ala-Lys-His.