

## Bone Morphogenetic Protein-2 Human, Recombinant protein

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> E. coli	RP1762610010	(10 ug)
<b>Species:</b> Human	RP1762611000	(1 mg)
<b>Other names:</b> BMP-2		

### Description

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.

### 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.

### Source

E. coli

### Purity

Greater than 95.0% as determined by:

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

### Biological Activity

- The ED50 as determined by the cytolysis of MC3T3-E1 cells is < 50 ng/ml.
- When implanted in the mouse thighbone muscle and grow for 14 days, Muscle tissue was harvested and examined biochemically for calcium uptake. Our unit defined as 1 microgram calcium absorbed. The specific activity is more than 1000 Units/mg.
- The activity of BMP-2 was tested using alkaline phosphatase, the activity in mouse muscle myoblast C2C12 cell line was found to be  $1 \times 10^5$  U/mg protein.
- The ectopic osteogenesis capacity is 1000mg fresh bone per 1mg of BMP-2.

### Formulation

BMP-2 was lyophilized from a concentrated (1mg/ml) sterile solution containing 20mM NaAc pH=4.

### Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

### Storage, Stability/Shelf Life

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.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder

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