Product Datasheet

Product Name	Bone Morphogenetic Protein-2 Human Recombinant
Cata No	CB500163
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.

Biological Activity

1. The ED50 as determined by the cytolysis of MC3T3-E1 cells is < 50 ng/ml.

2. 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.

3. The activity of BMP-2 was tested using alkaline phosphatase, the activity in mouse muscle myoblast C2C12 cell line was found to be 1×10^5 U/mg protein.

4. The ectopic osteogenesis capacity is 1000mg fresh bone per 1mg of BMP-2.

Purity

Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

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

Stability

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

Sequence

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

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