PRODUCT INFORMATION

Product Overview: Recombinant Human Bone Morphogenetic Protein-2 produced in CHO is a homodimeric, glycosylated, Polypeptide chain containing 115 amino acids and having a calculated molecular mass of 26018 Dalton. Due to its glycosilation, BMP-2 migrates on SDS-PAGE under non-reducing conditions at 36kDa and 18kDa under reducing conditions. The BMP-2 CHO derived protein is purified by proprietary chromatographic techniques.

Description: BMP2 belongs to the transforming growth factor-beta (TGFβ) superfamily. Bone morphogenic protein induces bone formation. BMP2 is a candidate gene for the autosomal dominant disease of fibrodysplasia (myositis) ossificans progressiva.

Source: Chinese Hamster Ovary Cell.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: 1mcg of BMP-2 was lyophilized from a sterile solution containing 0.2% sucrose, 2.5% glycine, 0.01% tween-80, 0.01% NaCl and 3% mannitol.

Biological Activity: The ED50 as determined by cytolysis of ATDC-5 cell is less than 50ng/ml.

Solubility: It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-2 in sterile water at a concentration of 100µg/ml, which can then be further diluted to other aqueous solutions.

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

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.

GENE INFORMATION

Gene Name: BMP2 bone morphogenetic protein 2 [ Homo sapiens ]

Synonyms: BMP2A; BMP-2; Bone morphogenetic protein 2 precursor; bone morphogenetic protein 5; BMP-2A; OT-THUMP0000016650; BMP2

Genid: 650

mRNA Refseq: NM_001200

Protein Refseq: NP_001191

MIM: 112261

UniProt ID: P12643

Chromosome Location: 20p12

Pathway: BMP signaling pathway; Basal cell carcinoma; Cytokine-cytokine receptor interaction; Hedgehog signaling pathway; TGF-beta signaling pathway

Function: Cytokine activity, Growth factor activity, Specific transcriptional repressor activity

REFERENCES