



11 Park Drive, Suite 12  
Boston, MA 02215

## Human Bone Morphogenetic Protein-7 (BMP-7, CHO)

### ORDERING INFORMATION

Catalog No: rAP-0057;

Size: 2 µg; 10 µg

Storage: <- 20° C

### Synonyms:

Osteogenic Protein 1, OP-1, BMP-7.

### Introduction:

The bone morphogenetic proteins (BMPs) are a family of secreted signaling molecules that can induce ectopic bone growth. Many BMPs are part of the transforming growth factor-beta (TGFB) superfamily. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. Based on its expression early in embryogenesis, the BMP encoded by this gene has a proposed role in early development. In addition, the fact that this BMP is closely related to BMP5 and BMP7 has lead to speculation of possible bone inductive activity.

### Description:

N-TERMINAL---Human BMP-2 (Met 1 – Arg 282) Human BMP-7 (Ser 293 – Arg 431)---C-TERMINAL. The DNA sequence encoding the human BMP-2 signal peptide and propeptide (1~282 amino acid) fused to the human rhBMP-7 mature chain (293~431 amino acid) was expressed in a Chinese hamster ovary cell line. The mature recombinant BMP-7 generated by the proteolytic removal of the signal peptide and propetide contains 139 amino acid residues. The glycosylation of BMP-7 increases the molecular mass and the glycosylated proteins migrate as 25 ~ 40 kDa in SDS-PAGE under non-reducing conditions. BMP-7 is purified by proprietary chromatographic techniques.

### Source:

*Chinese Hamster Ovarian Cells*

### Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

### Formulation:

BMP-7 was lyophilized from a concentrated (1mg/ml) sterile solution containing 1% sucrose, 1.2% mannitol, 20mM glycine, and 0.005% tween 20 pH-4.

### Solubility:

It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-7 in sterile 20mM AcOH (acetic Acid) not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability:

Lyophilized BMP-7 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP 7 Human 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.**

### Purity:

Greater than 97.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, [angioproteomie@gmail.com](mailto:angioproteomie@gmail.com)



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**Biological Activity:**

Measured in alkaline phosphatase activity assay using MC3T3-E1 cells. The ED<sub>50</sub> for this effect is < 100 ng/mL.

**Usage:**

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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