



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Bone Morphogenetic Protein-7 (BMP-7) CHO

Catalog No.
228-10135

Source:
Chinese Hamster Ovarian Cells

Synonyms

Osteogenic Protein 1, BMP-7

Description

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 extraskelatal 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.

Preparation

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 BMP-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.

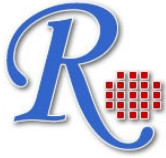
Formulation

BMP-7 was lyophilized from a concentrated (1mg/ml) sterile solution containing 1% sucrose, 1.2% mannitol, 20mM glycine, and 0.05% tween 20 pH-4.

Reconstitution

It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-7 in 1ml sterile/ endotoxin free water.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Stability

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

Purity

Greater than 97.0% as determined by:

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

Biological Activity

Measured in alkaline phosphatase activity assay using MC3T3-E1 cells. The ED50 for this effect is < 100 ng/mL.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**