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Certificate of Analysis and Data Sheet

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

Catalog No.
228-10134

Source
Escherichia Coli.

Synonyms

Osteogenic Protein 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 led to speculation of possible bone inductive activity.

Description

Bone Morphogenetic Protein-7 Human Recombinant produced in E.Coli is a monomeric, non-glycosylated, polypeptide chain containing 139 amino acids and having a molecular mass of 15679.97 Dalton. The BMP-7 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

BMP-7 was lyophilized from a concentrated (1mg/ml) sterile solution containing 10mM sodium citrate pH3.5.

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.

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



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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 95.0% as determined by:

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

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Thr-Gly-Ser-Lys.

Applications

1. Molecular standard (Western, ELISA) in studying secreted BMP-7.
2. Preparing antibodies for BMP-7 monomer.
3. Molecule standard in detecting secreted BMP-7 in reduced SDS-PAGE.

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