



Bone Morphogenetic Protein-7, human recombinant (rHuBMP-7)

Catalog No: 87325
Lot No: XXXXX
Source: *E. coli*
Synonyms: Osteogenic Protein 1, BMP-7

Background

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.

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. 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 (1 mg/ml) sterile solution containing 10 mM sodium citrate pH 3.5.

Solubility

It is recommended to briefly centrifuge the vial prior to opening to bring the contents to the bottom. Reconstitute in 20 mM - 100 mM acetic acid at a concentration of 0.1-0.5 mg per ml. Stock solutions should be apportioned into working aliquots and stored

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.

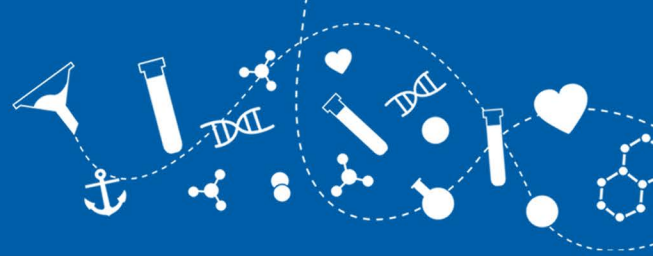
Applications

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

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