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## Product Data Sheet

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Product Name: BMP 7 Human, Plant  
Cat. No.: GP20111  
Batch No.: 1

### Product Data

Purity >98% Source Nicotiana benthamiana.

Physical Appearance solid Shipping Condition Shipped at Room temp.

Synonyms Osteogenic Protein 1; BMP-7.

Amino Acid Sequence HHHHHHSTGSKQRSQNRSKTPKNQEALRMANVAENSSSDQRQACKKHELYVSFRDLGWQDWIIAPEGYAAYYCEGECAFLNSYMNATNHAIVQTLV

Solubility Lyophilized BMP-7 protein should be reconstituted in distilled water to a concentration of 50 ng/?l.

Formulation BMP-7 was lyophilized from a solution containing Tris-HCl 0.05M buffer at pH 7.4.

### 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.

### Biological Activity

The biological activity of BMP-7 was measured by its ability to induce alkaline phosphatase production by ATDC5 cells, ED50 is less than 40ng/ml, corresponding to a specific activity of 25,000 units/mg.

### 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.

### Background

Bone Morphogenetic Protein-7 Human Recombinant produced in Plant is a monomeric, glycosylated, polypeptide chain containing 144 amino acids and having a molecular mass of 16.5kDa, and fused to a 6xHis-tag at the N-terminus. The BMP-7 is purified by proprietary chromatographic techniques.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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