

**GRF-10724 Human Recombinant Bone Morphogenetic Protein-4**

**Size:** 10 µg

**Synonyms:** BMP4, ZYME, BMP2B, BMP2B1.

**Introduction:** The protein encoded by this gene is a member of the bone morphogenetic protein family which is part of the transforming growth factor-beta superfamily. The superfamily includes large families of growth and differentiation factors. Bone morphogenetic proteins were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. This particular family member plays an important role in the onset of endochondral bone formation in humans, and a reduction in expression has been associated with a variety of bone diseases, including the heritable disorder Fibrodysplasia Ossificans Progressiva. Alternative splicing in the 5' untranslated region of this gene has been described and three variants are described, all encoding an identical protein.

**Description:** Bone Morphogenetic Protein-4 Human Recombinant produced in E.Coli is a monomeric, non-glycosylated, Polypeptide chain containing 116 amino acids and having a molecular mass of 13009 Dalton. The BMP-4 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli.*

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:** BMP-4 was lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in 20mM Na2CO3 buffer, pH 9.0.

**Solubility:** It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-4 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Purity:** (a) Analysis by RP-HPLC determined by:  
(b) Analysis by SDS-PAGE.

**Amino acid sequence:** SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP  
FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKNYQEMVV  
EGCGCR.

**Stability:** Lyophilized Bone Morphogenetic Protein-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP4 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.**

**For Research use only; not for use as a diagnostic**  
**IMMUNOLOGICAL SCIENCES**

Web-site: [www.immunologicalsciences.com](http://www.immunologicalsciences.com); E-Mail: [info@immunologicalsciences.com](mailto:info@immunologicalsciences.com)