



## Bone Morphogenetic protein-4 active, HEK, human recombinant (rHuBMP-4-HEK)

**Catalog No:** 97421  
**Lot No:** XXXXX  
**Source:** HEK293  
**Synonyms:** BMP4, ZYME, BMP2B, BMP2B1

### Background

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

BMP-4 human recombinant produced in HEK cells is a glycosylated disulfide linked homodimer, having a total molecular weight of 34 kDa. BMP-4 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

BMP4 was lyophilized from 0.93 mg/ml in 2xPBS + 6% ethanol.

### Solubility

It is recommended to reconstitute the lyophilized BMP-4 in sterile 4 mM HCl containing 0.1% endotoxin-free recombinant HSA.

### Stability

Lyophilized BMP4, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP-4 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% as observed by SDS-PAGE.

### Activity

The specific activity was determined by the dose dependent induction of alkaline phosphatase production in the ATDC-5 cell line (Mouse chondrogenic cell line) and was found to be 9.3 ng/ml.

### Usage

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