

## Datasheet

# Bone Morphogenetic Protein 4

## Human Recombinant

Product	Description	Catalogue-No.	Size
BMP-4	Bone morphogenetic protein 4, human recombinant	P-3610002 P-3610003	2 µg 10 µg

### Product description

Synonyms: BMP4, BMP2B, ZYME

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. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis *in vivo* in an extra skeletal 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.

Bone morphogenetic protein 4 (BMP-4) human recombinant produced in *E. coli* is a monomeric, non-glycosylated, polypeptide chain containing 116 amino acids having a molecular mass of 13 kDa. The BMP-4 is purified by proprietary chromatographic techniques.

### Solubility, stability and storage conditions

It is recommended to reconstitute the lyophilized BMP-4 in sterile ddH<sub>2</sub>O not less than 100 µg/ml which can then be further diluted to other aqueous solutions. Lyophilized BMP-4 although stable at room temperature for 3 weeks, should be stored desiccated below -20° C. Upon reconstitution BMP-4 should be stored at 2-8° C for up to 7 days and for future use below -20° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Composition

Sterile filtered white lyophilized (freeze-dried) powder; BMP-4 was lyophilized from a 0.2 µm filtered concentrated (1 mg/ml) solution in 20 mM Na<sub>2</sub>CO<sub>3</sub> buffer, pH 9.0.

Amino acid sequence: SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYC HGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKNYQEMVV EGCGCR

Purity: > 95.0% as determined by: (a) analysis by RP-HPLC. (b) analysis by SDS-PAGE.

### Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

### Technical Support

Additional information will be available on our website: [www.pan-biotech.com](http://www.pan-biotech.com)

For technical support or questions or please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email ([info@pan-biotech.com](mailto:info@pan-biotech.com)) or phone +49-8543-601630.