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# Recombinant human BMP-4 (monomer) protein

Catalog Number: BMP0904

#### PRODUCT INFORMATION

### **Expression system**

E.coli

#### **Domain**

293-408aa

#### UniProt No.

P12644

#### **NCBI Accession No.**

NP 001193.2

#### **Alternative Names**

ZYME, DVR4, Bone morphogenetic protein 4, Bone morphogenetic protein 2B, BMP4, BMP2B1, BMP2B

# **PRODUCT SPECIFICATION**

#### **Molecular Weight**

13.2 kDa (117aa) confirmed by MALDI-TOF

#### Concentration

0.5mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 10mM Sodium Citrate buffer (pH 3.5) containing 10% glycerol

#### **Purity**

> 85% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

#### **Tag**

Non-Tagged

# **Application**

SDS-PAGE

# **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

#### **BACKGROUND**

#### **Description**

Bone morphogenetic protein 4 (BMP-4) is a member of the bone morphogenetic protein family which belongs to the TGF-beta superfamily. This protein is a vital regulatory molecule that functions throughout bone and cartilage development, specifically tooth development, limb formation, bone induction, and fracture repair. In human embryonic development, BMP- 4 is required for the early differentiation of the embryo and establishing of



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a dorsal-ventral axis. And it is overexpressed in patients with fibrodysplasia ossificans progressiva. Recombinant BMP-4 was expressed as insoluble protein aggregate in E. coli and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

# **Amino acid Sequence**

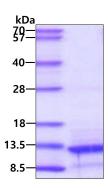
MSPKHHSQRA RKKNKNCRRH SLYVDFSDVG WNDWIVAPPG YQAFYCHGDC PFPLADHLNS TNHAIVQTLV NSVNSSIPKA CCVPTELSAI SMLYLDEYDK VVLKNYQEMV VEGCGCR

### **General References**

Moon BS., et al. (2009) Exp Mol Med. 41(2):116-25. Li BC., et al. (2009) J Trauma. 66(2):450-6

# **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

