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

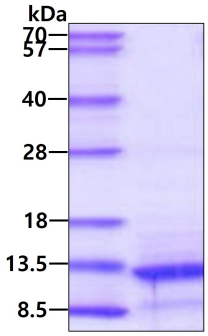
MSPKHHSQRA RKKNKNCRRH SLYVDFSDVG WNDWIVAPPG YQAFYCHGDC PFPLADHLNS TNHAIVQTLV NSVNSSIPKA CCVPTELSAI SMLYLDEYDK VVLKNYQEMV VEGCGCR

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.