

# Recombinant human BMP-2 protein

Catalog Number: ATGP3940

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

283-396aa

### UniProt No.

P12643

### NCBI Accession No.

NP\_001191

### Alternative Names

Bone morphogenetic protein 2, BMP-2A

## PRODUCT SPECIFICATION

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### Molecular Weight

13 kDa (115aa)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 10mM Sodium acetate (pH 3.5)

### Purity

> 90% by SDS-PAGE

### Endotoxin level

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

### Biological Activity

Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is  $\leq$  100 ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### 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

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# Recombinant human BMP-2 protein

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## Description

BMP-2, also known as Bone morphogenetic protein 2, is multi-functional growth factor that belongs to the transforming growth factor beta (TGF beta) superfamily. It plays an important role in embryonic dorsal-ventral patterning, organogenesis, limb bud formation, and bone formation and regeneration. BMP-2 also promotes the maintenance and repair of colonic epithelium, suppresses neuronal dopamine synthesis and release, induces apoptosis in medulloblastoma cells, and is required for cardiac contractility. Recombinant human BMP2 was expressed in E. coli and purified by conventional chromatography techniques.

## Amino acid Sequence

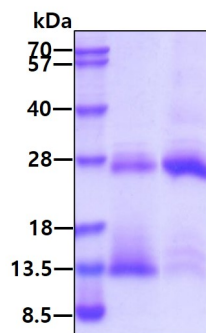
MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTLSAISM LYLDENEKVV LKNYQDMVVE GCGCR

## General References

Chen D., et al. (2004). Growth factors. 22(4):233-41  
 Schliephake H., et al. (2005). Clin Oral Implants Res. 17(6):666-72

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain  
 Lane1 : reducing conditions  
 Lane2 : non-reducing conditions

### Biological Activity

Human BMP-2 stimulates alkaline phosphatase in the ATDC5 mouse chondrogenic cells. The ED50 range  $\leq$  100 ng/ml.

