Recombinant human BMP-2 protein

Catalog Number: ATGP3940

PRODUCT INFORMATION

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

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 ≤ 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

Recombinant human BMP-2 protein

Catalog Number: ATGP3940

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

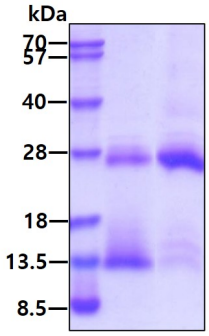
MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR

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

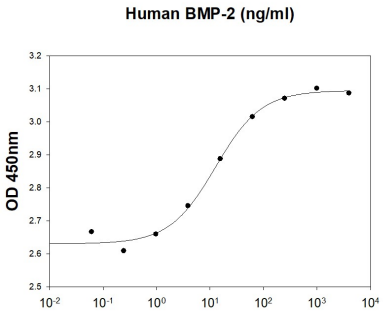
DATA

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 ≤ 100 ng/ml.