

Bone Morphogenetic Protein 4 (BMP4) Active Protein | BMP4 active protein

Active Bone Morphogenetic Protein 4 (BMP4)

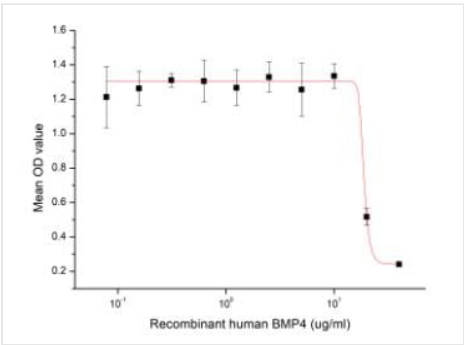
CATALOG # AAA161654	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	-----------------------	---

PRODUCT SYNONYMS

Bone Morphogenetic Protein 4 (BMP4); Active Bone Morphogenetic Protein 4 (BMP4); Bone Morphogenetic Protein 4; BMP2B; BMP2-B; BMP2B1; ZYME; DVR4; Bone morphogenetic protein 2B4; BMP4 active protein

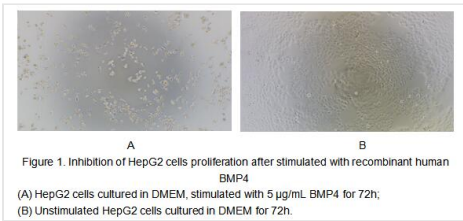
PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ser293~Arg 408
Applicable Applications for BMP4 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	7.7
Research Area	Developmental science, Bone metabolism
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



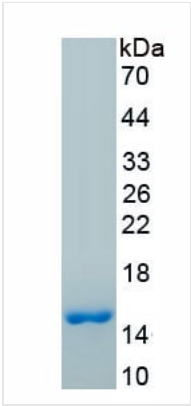
Bioactivity

Figure 2. Inhibition of HepG2 cells proliferation after stimulated with recombinant human BMP4



Bioactivity

BMP4 (Bone morphogenetic protein 4) is a member of the bone morphogenetic protein family, which is involved in bone and cartilage development, specifically tooth and limb development and fracture repair. To test the effect of BMP4 on cell apoptosis, HepG2 cells were seeded into triplicate wells of 96-well plates at a density of 4,000 cells/well and allowed to attach overnight, then the medium was replaced with various concentrations of recombinant human BMP4 diluted with 5% serum standard DMEM. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 ul of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 degree C. Apoptosis of HepG2 cells after incubation with BMP4 for 72h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant human BMP4 for 72h. The result was shown in Figure 2. It was obvious that BMP4 significantly decreased cell viability of HepG2 cells. The ED50 of recombinant human BMP4 is 18.77 ug/ml.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for BMP4 active protein	Active proteins
---	-----------------

NCBI AND UNIPROT INFORMATION

NCBI GI #	157276593
NCBI GeneID	652
NCBI Accession #	NP_001193.2
NCBI GenBank Nucleotide #	NM_001202.3
UniProt Accession #	P12644; Q9UM80
Molecular Weight	46,555 Da
NCBI Official Full Name	bone morphogenetic protein 4 preproprotein
NCBI Official Synonym Full Names	bone morphogenetic protein 4
NCBI Official Symbol	BMP4

NCBI Official Synonym Symbols	ZYME; BMP2B; OFC11; BMP2B1; MCOPS6
NCBI Protein Information	bone morphogenetic protein 4; BMP-4; BMP-2B; bone morphogenetic protein 2B
UniProt Protein Name	Bone morphogenetic protein 4
UniProt Gene Name	BMP4
UniProt Synonym Gene Names	BMP2B; DVR4; BMP-4; BMP-2B
UniProt Entry Name	BMP4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/bone-morphogenetic-protein-4-bmp4/161654>