

Bone Morphogenetic Protein 2 (BMP2) Active Protein | BMP2 active protein

Active Bone Morphogenetic Protein 2 (BMP2)

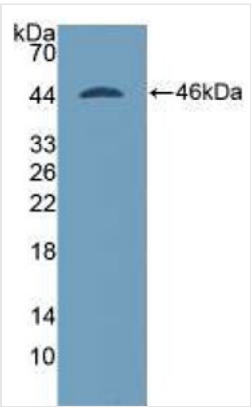
CATALOG # AAA149222	HOST E. coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

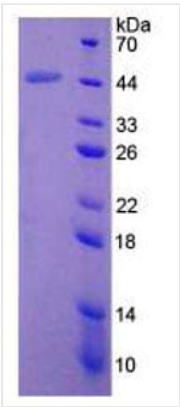
Bone Morphogenetic Protein 2 (BMP2); Active Bone Morphogenetic Protein 2 (BMP2); BMP2A; BMP-2A; Hemochromatosis Modifier; BMP2 active protein

PRODUCT SPECIFICATIONS

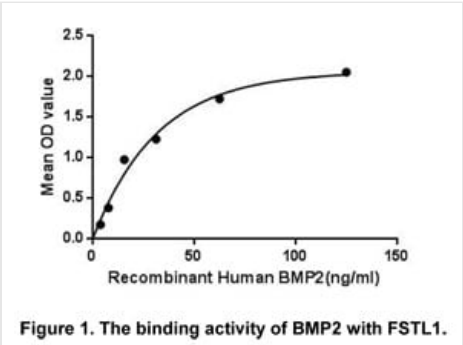
Host	E. coli
Purity/Purification	>92%
Form/Format	20mM Tris, 500mM NaCl, pH8.0, containing 0.01% sarcosyl, 5%Trehalose.
Applicable Applications for BMP2 active protein	Activity Assay, Cell Culture
Organism Species	Homo sapiens (Human)
Source	Prokaryotic expression.
Residues	Leu24~Arg396
Tags	N-terminal His-tag
Predicted isoelectric point	9.2
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



WB (Western Blot)
Western BlotSample: Recombinant BMP2, Human;Antibody: Rabbit Anti-Human BMP2 Ab



SDS-PAGE
Sample: Active recombinant BMP2, Human



LVPELGR RKFAAASSGR PSSQPSDEVL
SEFELRLLSM FGLKQPTPS RDAVVPYRL DLYRPHSGQP GSPAPDHPLE
RAASRANTVR SFHHEESLEE LPETSGKTR RFFNLSSIP TEEFITSDEL
QVFRQMDA LGNSSFHHR INIYEIKPA TANSKFPVTR LLDTRLVNQN
ASPMESFDVT PAVNRWTAQG HANHGFWVEV AHLEEKQGVV KPHVRLSRSL
HODEHSWSQI RPLLVTFGHD GKGPLHKRE KROAKHKQRI PLKSSCKRHP
LYVDFSDVGN NDHIVAPPGY HAFYCHGECF FPLADHLNST NHAIVQTLVN
SVNSKIPKAC CVPTLSAIS MLYLDENEKV VLKNYQDMVV EGCGR

Sequence

Bioactivity
Bone morphogenetic protein 2 (BMP2) belongs to the TGF-Beta superfamily of proteins. It plays an important role in the development of bone and cartilage. BMP2 is involved in the hedgehog pathway, TGF beta signaling pathway, and in cytokine-cytokine receptor interaction. It also participated in cardiac cell differentiation and epithelial to mesenchymal transition. Like many other proteins from the BMP family, BMP2 has been demonstrated to potently induce osteoblast differentiation in a variety of cell types. Besides, Follistatin Like Protein 1 (FSTL1) has been identified as an interactor of BMP2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human BMP2 and recombinant human FSTL1. Briefly, BMP2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100@L were then transferred to FSTL1-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-BMP2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50@L stop solution to the wells and read at 450nm immediately. The binding activity of BMP2 and FSTL1 was shown in Figure 1, and this effect was in a dose dependent manner.

NCBI AND UNIPROT INFORMATION

NCBI GI #	115068
NCBI GeneID	650
UniProt Accession #	P12643
Molecular Weight	Predicted Molecular Mass: 46.1kDa Accurate Molecular Mass: 46kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	Bone morphogenetic protein 2
NCBI Official Synonym Full Names	bone morphogenetic protein 2
NCBI Official Symbol	BMP2
NCBI Official Synonym Symbols	BDA2; BMP2A; SSFSC

NCBI Protein Information	bone morphogenetic protein 2
UniProt Protein Name	Bone morphogenetic protein 2
UniProt Gene Name	BMP2
UniProt Synonym Gene Names	BMP2A; BMP-2; BMP-2A
UniProt Entry Name	BMP2_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.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/bone-morphogenetic-protein-2-bmp2/149222>