

Bone Morphogenetic Protein 7 (BMP7) Active Protein | BMP7 active protein

Active Bone Morphogenetic Protein 7 (BMP7)

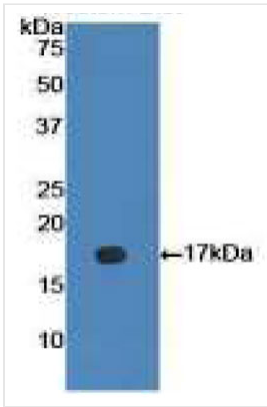
CATALOG # AAA21057	HOST E. coli	REACTIVITY Mus musculus (Mouse)	APPLICATIONS Cell Culture, Activity Assay
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PRODUCT SYNONYMS

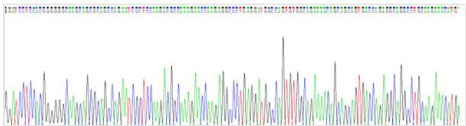
Bone Morphogenetic Protein 7 (BMP7); Active Bone Morphogenetic Protein 7 (BMP7); OP1; Osteogenic Protein-1; Eptotermin alfa; BMP7 active protein

PRODUCT SPECIFICATIONS

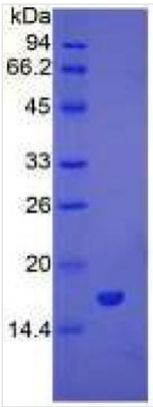
Host	E. coli
Reactivity	Mus musculus (Mouse)
Purity/Purification	>98%
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 300ug/mL (varies by lot)
Applicable Applications for BMP7 active protein	Cell Culture, Activity Assay
Application Notes	(May be suitable for use in other assays to be determined by the end user.)
Source	Prokaryotic expression
Residues	Ser292~His430
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	8.5
Usage	Reconstitute in 10mM PBS (pH7.4) 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)
Sample: Recombinant BMP7, Mouse;Antibody: Rabbit Anti-Mouse BMP7 Ab



Gene Sequencing (extract)



SDS-PAGE
Sample: Active recombinant BMP7, Mouse

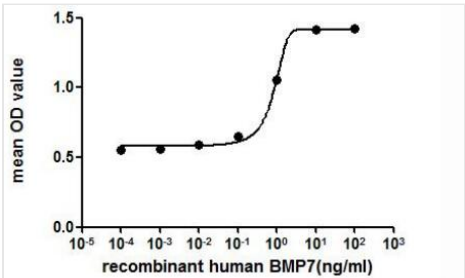
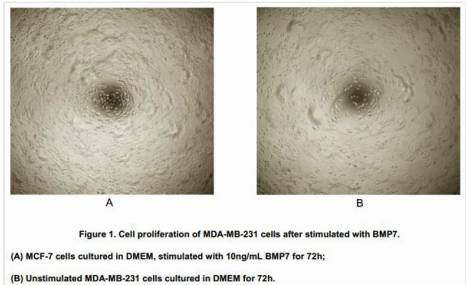


Figure 2. The dose-effect curve of BMP7 on MDA-MB-231 cells

Application Data
The dose-effect curve of BMP7 was shown in Figure 2. It was obvious that BMP7 significantly promoted cell proliferation of MDA-MB-231 cells. The ED50 for this effect is typically 3.483 to 9.017 ng/mL.



Activity
BMP7 (Bone morphogenetic protein 7), which belongs to the TGF-beta superfamily, is a signaling molecule with the ability to promote bone formation. BMP7 has also been implicated in various types of cancer, including breast cancer. It has been reported that BMP7 treatment induced cell growth promotion of MDA-MB-231 breast cancer line. To test the effect of BMP7 on cell proliferation, MDA-MB-231 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of BMP7. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10uL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 degree C.

STGGKQRSQ
NRSKTPKNQE ALRMASVAEN SSSDQRQACK KHELYVSFRD LGWQDHIAP
EGVAAYYCEG ECAFPPLNSYM NATNHAIVQT LVHFINPDTV PKPCCAPTQL
NAISVLYFDD SSVILKKYR NMVVRACGCH

Application Data

ADDITIONAL INFORMATION

Product Categories/Family for BMP7 active protein	Active Protein
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NCBI AND UNIPROT INFORMATION

NCBI GI #	31982487
NCBI GeneID	12162
NCBI Accession #	NP_031583.2
NCBI GenBank Nucleotide #	NM_007557.3
UniProt Accession #	P23359; Q91XF7
Molecular Weight	Predicted Molecular Mass: 16.9kDa Accurate Molecular Mass: 16kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	bone morphogenetic protein 7 preproprotein
NCBI Official Synonym Full Names	bone morphogenetic protein 7
NCBI Official Symbol	Bmp7
NCBI Official Synonym Symbols	OP1
NCBI Protein Information	bone morphogenetic protein 7
UniProt Protein Name	Bone morphogenetic protein 7
UniProt Gene Name	Bmp7
UniProt Synonym Gene Names	Bmp-7; Op1; BMP-7; OP-1

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-mouse-mus-musculus-active-protein/bone-morphogenetic-protein-7-bmp7/21057>