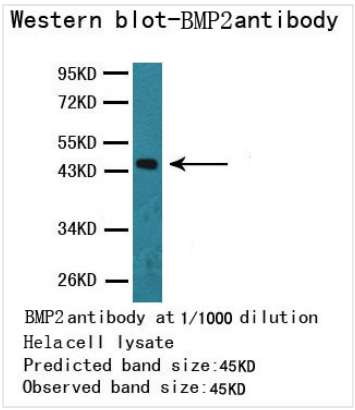
BMP2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BMP2, Polyclonal Antibody
Full Product Name	BMP2 Polyclonal Antibody
Product Gene Name	anti-BMP2 antibody
Product Synonym Names	bmp2; BMP 2A; BMP 2; BMP2A; bone morphogenetic protein 2; Bone morphogenetic protein 2A
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Each vial at least contains 0.1 mg IgG in 0.1 ml (1 mg/ml) of PBS pH7.4 with 0.1% sodium azide.
Purity/Purification	Affinity Purification
Preparation and Storage	Store at 4 degree C or-20 degree C (with 50% glycerol); Minimize freeze-thaw cycles; Non-hazardous.
Molecular Weight	44,702 Da
OMIM	112261
3D Structure	ModBase 3D Structure for P12643
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-BMP2 antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-BMP2 antibody	WB: 1:500-1000 IHC: 1:50-200
Related Product Information for anti-BMP2 antibody	Bone morphogenetic proteins (BMPs) were first identified as molecules that can induce ectopic bone and cartilage formation (1, 2). BMPs are synthesized as precursor proteins that are processed by cleavage to produce mature proteins. BMPs initiate signaling by binding to a receptor complex containing type I and type II serine/threonine receptor kinases that then phosphorylate Smad (mainly Smad1, 5 and 8), resulting in the translocation of Smad to the nucleus. BMP was also reported to activate MAPK pathways in some systems (3, 4). Probably plays a role in facilitating the assembly of multimeric protein complexes inside the ER.
Product References and Citations for anti-BMP2 antibody	Wang, E.A. et al. (1988) Proc Natl Acad Sci USA 85, 9484-8. Wozney, J.M. et al. (1988) Science 242, 1528-34. Kawabata, M. et al. (1998) Cytokine Growth Factor Rev 9, 49-61. Nohe, A. et al. (2004) Cell Signal 16, 291-9.
Other Notes	Small volumes of anti-BMP2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BMP2 purchase	MBS8527298 is an antibody targeting BMP2. Also known as BMP2 Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-BMP2 antibody

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ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMP2. It may not necessarily be applicable to this product.

NCBI GI #	4557369
NCBI GeneID	650
NCBI Accession #	NP_001191.1
UniProt Primary Accession #	P12643
UniProt Related Accession #	P12643
GenBank Nucleotide #	NM_001200.3
NCBI Official Full Name	bone morphogenetic protein 2 preproprotein
NCBI Official Synonym Full Names	bone morphogenetic protein 2
NCBI Official Symbol	BMP2
NCBI Official Synonym Symbols	BDA2; BMP2A; SSFSC
UniProt Protein Name	Bone morphogenetic protein 2
UniProt Synonym Protein Names	Bone morphogenetic protein 2A; BMP-2A
Protein Family	Bone morphogenetic protein
UniProt Gene Name	BMP2
UniProt Synonym Gene Names	BMP2A; BMP-2; BMP-2A
NCBI Protein Information	bone morphogenetic protein 2
NCBI Summary for BMP2	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer, which plays a role in bone and cartilage development. Duplication of a regulatory region downstream of this gene causes a form of brachydactyly characterized by a malformed index finger and second toe in human patients. [provided by RefSeq, Jul 2016]
UniProt Comments for BMP2	Induces cartilage and bone formation (PubMed:3201241). Stimulates the differentiation of myoblasts into osteoblasts via the EIF2AK3-EIF2A- ATF4 pathway. BMP2 activation of EIF2AK3 stimulates phosphorylation of EIF2A which leads to increased expression of ATF4 which plays a central role in osteoblast differentiation. In addition stimulates TMEM119, which upregulates the expression of ATF4 (PubMed:24362451).
Research Articles on BMP2	**1.** Study shows that recombinant human bone morphogenetic protein-2 activates hippo signaling through RASSF1 in esophageal cancer cells

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