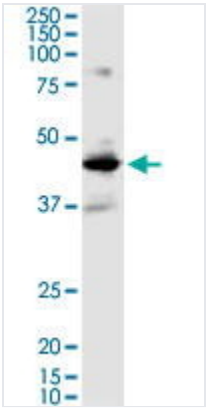
BMP2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	BMP2, Monoclonal Antibody
Full Product Name	BMP2 (Bone Morphogenetic Protein 2, BMP2A) (HRP)
Product Gene Name	anti-BMP2 antibody
Product Synonym Names	Bone Morphogenetic Protein 2; BMP2A
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	4A7
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with horseradish peroxidase (HRP).
Purity/Purification	Purified
Specificity	Recognizes BMP2.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and stor Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in as Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original prior to removing the cap.
Molecular Weight	44,702 Da
OMIM	112261
3D Structure	ModBase 3D Structure for P12643
Immunogen	BMP2 (NP_001191, 283aa-396aa) partial recombinant protein.
Immunogen Sequence	MQAKHKQRKRLKSSCKRHPLYVDFSDVGWNDWIVAPPGYHAFYCHGECPFPLADHLNSTNHAIVQTLVNSVNSKIPKACCVPTELSAISMLYLDENEKVV
Conjugate	HRP
Product Categories/Family for anti-BMP2 antibody	Antibodies; Growth Factors; Cytokines
Applications Tested/Suitable for anti-BMP2 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-BMP2 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-BMP2 antibody	MBS6181201 is an antibody targeting BMP2. Also known as BMP2 (Bone Morphogenetic Protein 2, BMP2A) (HRP). Host: Mouse.
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 necess 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



Western Blot (WB) of anti-BMP2 antibody
BMP2 monoclonal antibody (M06), clone 4A7. Western Blot analysis of BMP2 expression in MCF-7.

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
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
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
UniProt Entry Name	BMP2_HUMAN
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.** BMP2-transduced BMSCs can maintain the chondrocyte-like phenotype in PRP gel in vitro, and the combined use of these two agents can significantly promote repair of the degenerated discs in vivo
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