

BMP2 Rabbit mAb
Catalog # AP77621**Specification**

BMP2 Rabbit mAb - Product Information

Application	WB
Primary Accession	P12643
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	44702

BMP2 Rabbit mAb - Additional Information**Gene ID** 650**Other Names**

BMP2

Dilution

WB~~1/500-1/1000

Format

Liquid

BMP2 Rabbit mAb - Protein Information**Name** BMP2**Synonyms** BMP2A**Function**

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including cardiogenesis, neurogenesis, and osteogenesis (PubMed: [18436533](http://www.uniprot.org/citations/18436533), PubMed: [24362451](http://www.uniprot.org/citations/24362451), PubMed: [31019025](http://www.uniprot.org/citations/31019025)). Induces cartilage and bone formation (PubMed: [3201241](http://www.uniprot.org/citations/3201241)). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR2 (PubMed: [15064755](http://www.uniprot.org/citations/15064755), PubMed: [17295905](http://www.uniprot.org/citations/17295905), PubMed: [18436533](http://www.uniprot.org/citations/18436533)). Once all three components are bound together in a complex at the cell surface, BMPR2 phosphorylates and activates BMPR1A (PubMed: [7791754](http://www.uniprot.org/citations/7791754)). In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes. Also acts to promote expression of HAMP, via the interaction with its receptor

BMPR1A/ALK3 (PubMed: [31800957](http://www.uniprot.org/citations/31800957) target="_blank">31800957). Can also signal through non-canonical pathways such as ERK/MAP kinase signaling cascade that regulates osteoblast differentiation (PubMed: [16771708](http://www.uniprot.org/citations/16771708) target="_blank">16771708, PubMed: [20851880](http://www.uniprot.org/citations/20851880) target="_blank">20851880). Also stimulates the differentiation of myoblasts into osteoblasts via the EIF2AK3-EIF2A-ATF4 pathway by stimulating EIF2A phosphorylation which leads to increased expression of ATF4 which plays a central role in osteoblast differentiation (PubMed: [24362451](http://www.uniprot.org/citations/24362451) target="_blank">24362451). Acts as a positive regulator of odontoblast differentiation during mesenchymal tooth germ formation, expression is repressed during the bell stage by MSX1-mediated inhibition of CTNNB1 signaling (By similarity).

Cellular Location

Secreted.

Tissue Location

Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain, placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine

BMP2 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BMP2 Rabbit mAb - Images

