

**Anti-BMP2 Antibody**  
**Rabbit polyclonal antibody to BMP2**  
**Catalog # AP60433****Specification**

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**Anti-BMP2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P12643</a>
Other Accession	<a href="#">P21274</a>
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Bovine, SARS
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44702

**Anti-BMP2 Antibody - Additional Information****Gene ID** 650**Other Names**

BMP2A; Bone morphogenetic protein 2; BMP-2; Bone morphogenetic protein 2A; BMP-2A

**Target/Specificity**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human BMP2. The exact sequence is proprietary.

**Dilution**

WB~~WB (1/500 - 1/1000)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-BMP2 Antibody - 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:&lt;a href="http://www.uniprot.org/citations/18436533" target="\_blank"&gt;18436533&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/24362451" target="\_blank"&gt;24362451&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/31019025" target="\_blank"&gt;31019025&lt;/a&gt;). Induces

cartilage and bone formation (PubMed:<a href="http://www.uniprot.org/citations/3201241" target="\_blank">3201241</a>). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPRI1 and type II receptor BMPRI2 (PubMed:<a href="http://www.uniprot.org/citations/15064755" target="\_blank">15064755</a>, PubMed:<a href="http://www.uniprot.org/citations/17295905" target="\_blank">17295905</a>, PubMed:<a href="http://www.uniprot.org/citations/18436533" target="\_blank">18436533</a>). Once all three components are bound together in a complex at the cell surface, BMPRI2 phosphorylates and activates BMPRI1 (PubMed:<a href="http://www.uniprot.org/citations/7791754" target="\_blank">7791754</a>). In turn, BMPRI1 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 BMPRI1/ALK3 (PubMed:<a href="http://www.uniprot.org/citations/31800957" target="\_blank">31800957</a>). Can also signal through non-canonical pathways such as ERK/MAP kinase signaling cascade that regulates osteoblast differentiation (PubMed:<a href="http://www.uniprot.org/citations/16771708" target="\_blank">16771708</a>, PubMed:<a href="http://www.uniprot.org/citations/20851880" target="\_blank">20851880</a>). 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:<a href="http://www.uniprot.org/citations/24362451" target="\_blank">24362451</a>). 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 CTNBNB1 signaling (By similarity).

#### **Cellular Location**

Secreted.

#### **Tissue Location**

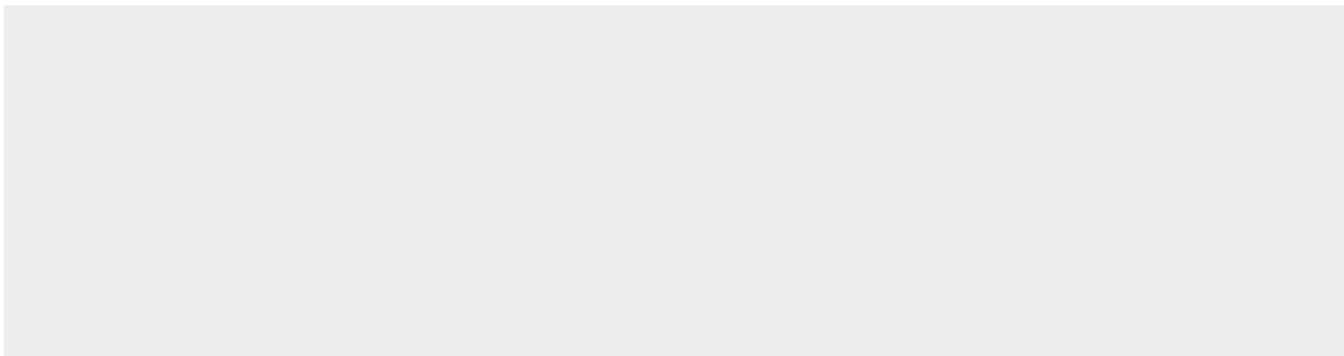
Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain, placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine

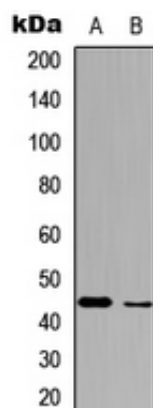
### **Anti-BMP2 Antibody - Protocols**

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](#)

### **Anti-BMP2 Antibody - Images**





Western blot analysis of BMP2 expression in HepG2 (A), HeLa (B) whole cell lysates.

#### **Anti-BMP2 Antibody - Background**

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