

**Anti-BMP2 Antibody (C-Terminus)**  
**Rabbit Anti Human Polyclonal Antibody**  
**Catalog # ALS17313****Specification**

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**Anti-BMP2 Antibody (C-Terminus) - Product Information**

Application	IHC-P
Primary Accession	<a href="#">P12643</a>
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Sheep, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44702

**Anti-BMP2 Antibody (C-Terminus) - Additional Information****Gene ID 650**

Alias Symbol	<b>BMP2</b>
<b>Other Names</b>	
BMP2, BDA2, BMP-2, BMP-2A, BMP2A, Bone morphogenetic protein 2, Bone morphogenetic protein 2A	

**Target/Specificity**

Recognizes endogenous levels of BMP2 protein.

**Reconstitution & Storage**

PBS, pH 7.3, 0.01% sodium azide, 30% glycerol. Store at -20°C. Aliquot to avoid freeze/thaw cycles.

**Precautions**

Anti-BMP2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-BMP2 Antibody (C-Terminus) - 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:<a href="http://www.uniprot.org/citations/18436533" target="\_blank">18436533</a>, PubMed:<a href="http://www.uniprot.org/citations/31019025" target="\_blank">31019025</a>, PubMed:<a href="http://www.uniprot.org/citations/24362451" target="\_blank">24362451</a>). 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 BMPR1A and type II receptor BMPR2 (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, BMPR2 phosphorylates and activates BMPR1A (PubMed:<a href="http://www.uniprot.org/citations/7791754" target="\_blank">7791754</a>). 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:<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/20851880" target="\_blank">20851880</a>, PubMed:<a href="http://www.uniprot.org/citations/16771708" target="\_blank">16771708</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**

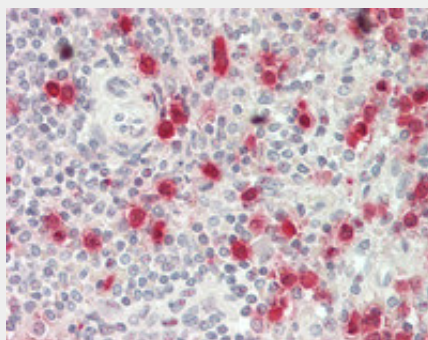
Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain, placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine

#### **Anti-BMP2 Antibody (C-Terminus) - 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 (C-Terminus) - Images**



Human Spleen: Formalin-Fixed, Paraffin-Embedded (FFPE)