

## BMP2 Antibody

### Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21447a

## Specification

### BMP2 Antibody - Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | WB,E                   |
| Primary Accession | <a href="#">P12643</a> |
| Reactivity        | Human, Rat             |
| Host              | Rabbit                 |
| Clonality         | polyclonal             |
| Isotype           | Rabbit Ig              |
| Calculated MW     | 44702                  |

### BMP2 Antibody - Additional Information

Gene ID 650

### Other Names

Bone morphogenetic protein 2, BMP-2, Bone morphogenetic protein 2A, BMP-2A, BMP2, BMP2A

### Target/Specificity

This BMP2 antibody is generated from a rabbit immunized with a recombinant protein of human BMP2.

### Dilution

WB~~1:2000

### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

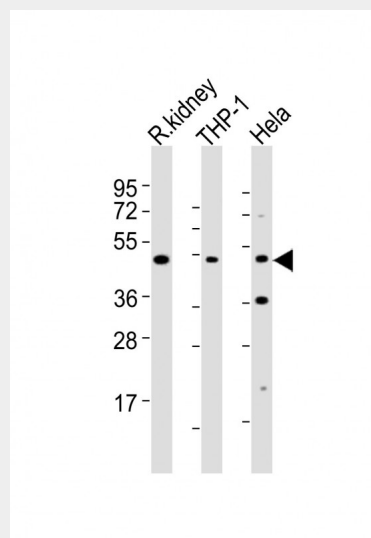
### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

BMP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### BMP2 Antibody - Protein Information



All lanes : Anti-BMP2 Antibody at 1:2000 dilution Lane 1: rat kidney lysates Lane 2: THP-1 whole cell lysates Lane 3: Hela whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### BMP2 Antibody - Background

Induces cartilage and bone formation.

### BMP2 Antibody - References

Wozney J.M.,et al.Science 242:1528-1534(1988).  
Shore E.M.,et al.Submitted (DEC-1997) to the EMBL/GenBank/DDBJ databases.  
Deloukas P.,et al.Nature 414:865-871(2001).  
Yeung B.,et al.Anal. Chem. 69:2510-2516(1997).  
Yanagita M.,et al.Biochem. Biophys. Res. Commun. 316:490-500(2004).

**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 BMPRI1A 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 BMPRI1A (PubMed:<a href="http://www.uniprot.org/citations/7791754" target="\_blank">7791754</a>). In turn, BMPRI1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes. 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>). Stimulates also 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/18436533" target="\_blank">18436533</a>).

itations/24362451"  
target="\_blank">24362451</a>).

**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 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](#)