

**BMP-7 Polyclonal Antibody**  
Catalog # AP68686**Specification****BMP-7 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P18075</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**BMP-7 Polyclonal Antibody - Additional Information**

Gene ID 655

**Other Names**

BMP7; OP1; Bone morphogenetic protein 7; BMP-7; Osteogenic protein 1; OP-1; Eptotermin alfa

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**BMP-7 Polyclonal Antibody - Protein Information**

Name BMP7

Synonyms OP1

**Function**

Growth factor of the TGF-beta superfamily that plays important role in various biological processes, including embryogenesis, hematopoiesis, neurogenesis and skeletal morphogenesis (PubMed: [31208997](http://www.uniprot.org/citations/31208997)). Initiates the canonical BMP signaling cascade by associating with type I receptor ACVR1 and type II receptor ACVR2A (PubMed: [12667445](http://www.uniprot.org/citations/12667445), PubMed: [9748228](http://www.uniprot.org/citations/9748228)). Once all three components are bound together in a complex at the cell surface, ACVR2A phosphorylates and activates ACVR1. In turn, ACVR1 propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes (PubMed: [12478285](http://www.uniprot.org/citations/12478285)). For specific functions such as growth cone collapse in developing spinal neurons and chemotaxis of monocytes, uses also BMPR2 as type II receptor (PubMed: [31208997](http://www.uniprot.org/citations/31208997)).

Can also signal through non-canonical pathways such as P38 MAP kinase signaling cascade that promotes brown adipocyte differentiation through activation of target genes, including members of the SOX family of transcription factors (PubMed:<a href="http://www.uniprot.org/citations/27923061" target="\_blank">27923061</a>). Promotes the expression of HAMP, this is repressed by its interaction with ERFE (PubMed:<a href="http://www.uniprot.org/citations/30097509" target="\_blank">30097509</a>).

#### Cellular Location

Secreted.

#### Tissue Location

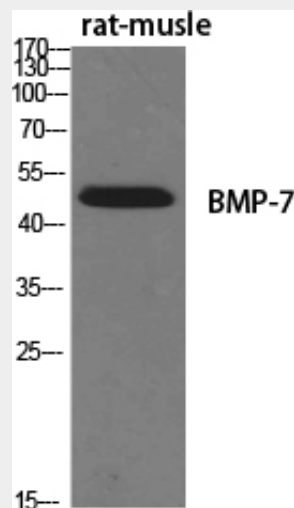
Expressed in the kidney and bladder. Lower levels seen in the brain

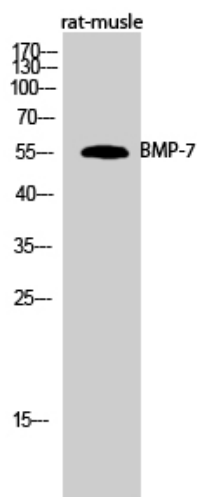
### BMP-7 Polyclonal Antibody - Protocols

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](#)

### BMP-7 Polyclonal Antibody - Images





### **BMP-7 Polyclonal Antibody - Background**

Induces cartilage and bone formation. May be the osteoinductive factor responsible for the phenomenon of epithelial osteogenesis. Plays a role in calcium regulation and bone homeostasis.