

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

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

**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.

IHC-P~~N/A

**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:<a href="http://www.uniprot.org/citations/31208997" target="\_blank">31208997</a>). Initiates the canonical BMP signaling cascade by associating with type I receptor ACVR1 and type II receptor ACVR2A (PubMed:<a href="http://www.uniprot.org/citations/12667445" target="\_blank">12667445</a>, PubMed:<a href="http://www.uniprot.org/citations/9748228" target="\_blank">9748228</a>). 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:<a href="http://www.uniprot.org/citations/12478285" target="\_blank">12478285</a>). For specific functions such as growth cone collapse in developing spinal neurons and chemotaxis of monocytes, also uses BMPR2 as type II receptor

(PubMed:<a href="http://www.uniprot.org/citations/31208997" target="\_blank">31208997</a>). 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

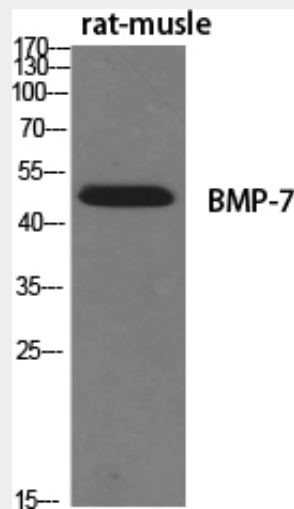
Expressed in the kidney and bladder. Lower levels seen in the brain

### BMP-7 Polyclonal Antibody - Protocols

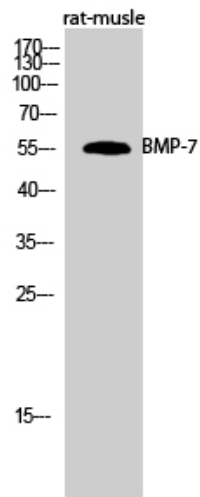
Provided below are standard protocols that you may find useful for product applications.

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

### BMP-7 Polyclonal Antibody - Images



Western Blot analysis of various cells using BMP-7 Polyclonal Antibody diluted at 1:500



Western Blot analysis of rat-muscle cells using BMP-7 Polyclonal Antibody diluted at 1:500

#### **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.