

# BMP7 Antibody

Rabbit mAb

Catalog # AP91170

## Product Information

---

<b>Application</b>	WB, IP
<b>Primary Accession</b>	<a href="#">P18075</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	Bmp7; Bone morphogenetic protein 7; Eptoterminal; OP 1; Osteogenic protein 1;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	49313

## Additional Information

---

<b>Dilution</b>	WB 1:500~1:2000 IP 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human BMP7
<b>Description</b>	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.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

---

<b>Name</b>	BMP7
<b>Synonyms</b>	OP1
<b>Function</b>	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="#">31208997</a> ). Initiates the canonical BMP signaling cascade by associating with type I receptor ACVR1 and type II receptor ACVR2A (PubMed: <a href="#">12667445</a> , PubMed: <a href="#">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="#">12478285</a> ). For specific functions such as growth cone collapse in developing spinal neurons and chemotaxis of monocytes, also uses BMP2 as type II receptor (PubMed: <a href="#">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:[27923061](#)). Promotes the expression of HAMP, this is repressed by its interaction with ERFE (PubMed:[30097509](#)).

**Cellular Location**

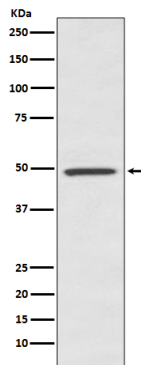
Secreted.

**Tissue Location**

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

## Images

---



Western blot analysis of BMP7 expression in human fetal kidney lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.