

BMP7 Antibody
Rabbit mAb
Catalog # AP91170

Specification

BMP7 Antibody - Product Information

Application	WB, IP
Primary Accession	P18075
Reactivity	Rat
Clonality	Monoclonal
Other Names	
Bmp7; Bone morphogenetic protein 7; Eptotermin alfa; OP 1; Osteogenic protein 1;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	49313 Da

BMP7 Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human BMP7
Description	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.
Storage Condition and Buffer	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.

BMP7 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). 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). 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

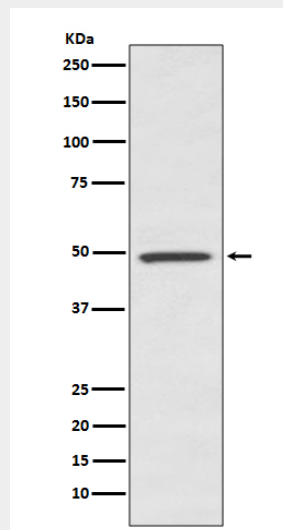
Expressed in the kidney and bladder. Lower levels seen in the brain

BMP7 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](#)

BMP7 Antibody - Images



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