

Anti-BMP7 Antibody
Rabbit polyclonal antibody to BMP7
Catalog # AP59488

Specification

Anti-BMP7 Antibody - Product Information

Application	WB, IH
Primary Accession	P18075
Other Accession	P23359
Reactivity	Human, Mouse, Rat, Rabbit, Monkey, Pig, Chicken, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49313

Anti-BMP7 Antibody - Additional Information

Gene ID 655

Other Names

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

Target/Specificity

Recognizes endogenous levels of BMP7 protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

IH~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-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). Initiates the canonical BMP signaling cascade by associating with type I receptor ACVR1 and type II receptor ACVR2A (PubMed:12667445)

target="_blank">12667445, PubMed: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

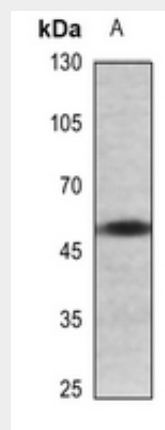
Expressed in the kidney and bladder. Lower levels seen in the brain

Anti-BMP7 Antibody - Protocols

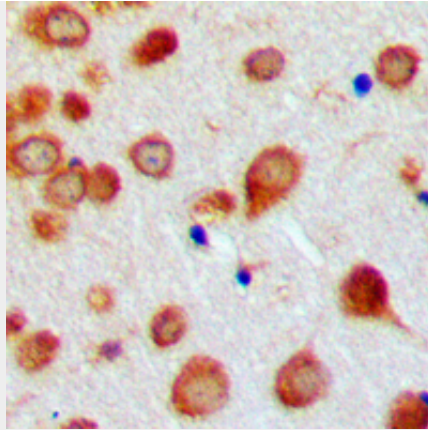
Provided below are standard protocols that you may find useful for product applications.

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

Anti-BMP7 Antibody - Images



Western blot analysis of BMP7 expression in mouse heart (A) whole cell lysates.



Immunohistochemical analysis of BMP7 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-BMP7 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human BMP7. The exact sequence is proprietary.