

### Anti-BMP7 Rabbit Monoclonal Antibody

Catalog # ABO13528

#### Specification

### Anti-BMP7 Rabbit Monoclonal Antibody - Product Information

Application WB, IP **Primary Accession** P18075 Rabbit Host Isotype Rabbit IgG Reactivity Rat, Human, Mouse Clonality Monoclonal Format Liquid Description Anti-BMP7 Rabbit Monoclonal Antibody . Tested in WB, IP applications. This antibody reacts with Human, Mouse, Rat.

#### Anti-BMP7 Rabbit Monoclonal Antibody - Additional Information

Gene ID 655

**Other Names** Bone morphogenetic protein 7, BMP-7, Osteogenic protein 1, OP-1, Eptotermin alfa, BMP7, OP1

Calculated MW 49313 MW KDa

Application Details WB 1:500-1:2000<br>IP 1:50

Subcellular Localization Secreted.

**Tissue Specificity** Expressed in the kidney and bladder. Lower levels seen in the brain.

**Contents** Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen A synthesized peptide derived from human BMP7

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.



# Anti-BMP7 Rabbit Monoclonal 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 adjpocyte 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

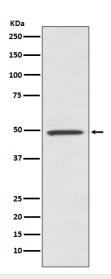
## **Anti-BMP7 Rabbit Monoclonal Antibody - Protocols**

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-BMP7 Rabbit Monoclonal Antibody - Images





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