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BMP-7 Polyclonal Antibody

Catalog # AP68686

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P18075
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49313

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 IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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, 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, also uses 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).

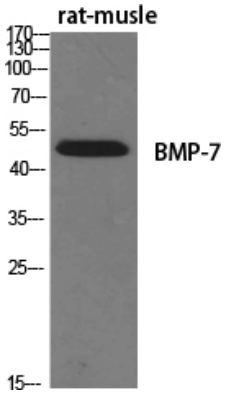
Cellular Location Secreted.

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

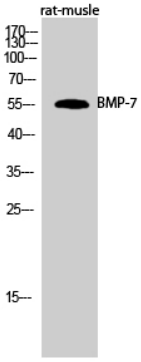
Background

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.

Images



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



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

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