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Anti-BMP7 Antibody

Catalog # AP95702

Product Information

Application	WB, IHC, FC
Primary Accession	P18075
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	49313

Additional Information

Gene ID	655
Other Names	OP1; Bone morphogenetIC, protein 7; BMP-7; OsteogenIC, protein 1; OP-1; Eptotermin alfa
Target/Specificity	Recombinant fusion protein of human BMP7 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200)
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

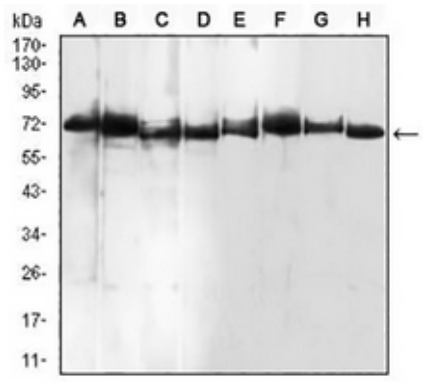
Name	BMP7
Synonyms	OP1
Function	Growth factor of the TGF-beta superfamily that plays important role in various biological processes, including embryogenesis, hematopoiesis, neurogenesis and skeletal morphogenesis (PubMed:31208997). Initiates the canonical BMP signaling cascade by associating with type 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).

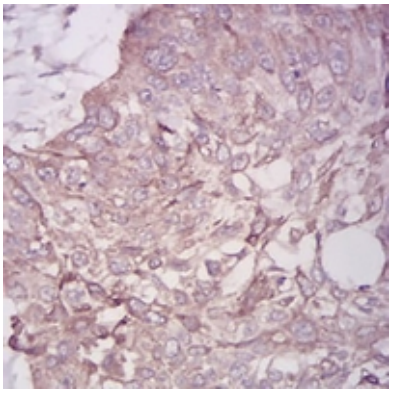
Cellular Location Secreted.

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

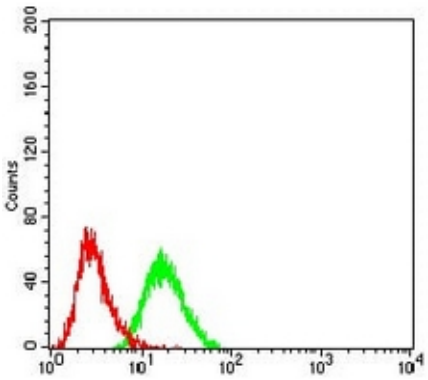
Images



Western blot analysis of BMP7 expression in Raw264.7 (A), A549 (B), Jurkat (C), PC3 (D), HEK293 (E), Jurkat (F), NIH/3T3 (G), Hela (H) whole cell lysates. (Predicted band size: 49 kD; Observed band size: 70 kD)



Immunohistochemical analysis of BMP7 staining in human esophageal cancer 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.



Flow cytometric analysis of HEK293 cells using Anti-BMP7 Antibody (green) and negative control (red).

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