

For Research Use Only

BMP7 Polyclonal antibody

Catalog Number: 12221-1-AP

Featured Product

13 Publications



Basic Information

Catalog Number: 12221-1-AP	GenBank Accession Number: BC008584	Purification Method: Antigen affinity purification
Size: 150ul, Concentration: 400 µg/ml by Nanodrop and 180 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 655	Recommended Dilutions: WB 1:500-1:2000 IP 0.5-4.0 ug for IP and 1:500-1:1000 for WB
Source: Rabbit	Full Name: bone morphogenetic protein 7	IHC 1:50-1:500 IF 1:20-1:200
Isotype: IgG	Calculated MW: 431 aa, 49 kDa	
Immunogen Catalog Number: AG2902	Observed MW: 49 kDa	

Applications

Tested Applications: IF, IHC, IP, WB, ELISA	Positive Controls: WB: MCF-7 cells, HEK-293 cells IP: HEK-293 cells, IHC: mouse brain tissue, human kidney tissue, human renal cell carcinoma tissue, human bladder tissue IF: HeLa cells,
Cited Applications: IF, IHC, WB	
Species Specificity: human, mouse	
Cited Species: human, rat	

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

The bone morphogenetic proteins (BMPs) are a family of secreted signaling molecules that can induce ectopic bone growth. Many BMPs are part of the transforming growth factor-beta (TGFβ) superfamily. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site.

BMP7, also known as osteogenic protein-1 or OP-1, plays a key role in the transformation of mesenchymal cells into bone and cartilage. BMP7 may be involved in bone homeostasis (PMID: 15621726). It is expressed in the brain, kidneys and bladder. BMP7 is also present in cancers, including breast, prostate, and colon cancers, in which it is implicated in regulating cancer cell proliferation (PMID: 16419056, PMID: 15531927). Overexpression of BMP7 mRNA in colorectal cancer patients was significantly associated with poor prognosis and low overall survival (PMID: 18259822). Recent studies suggest that high-expression level of BMP7 serves as a biomarker for poor prognosis for HCC (PMID: 23179403).

Notable Publications

Author	Pubmed ID	Journal	Application
Chia Yee Tan	31495264	Circ Res	WB
Lingling Liu	31655195	Life Sci	WB
Tianda Chen	27752241	Front Mol Neurosci	WB

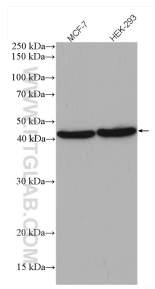
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

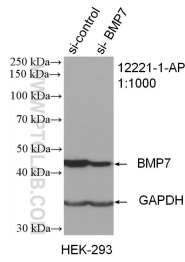
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

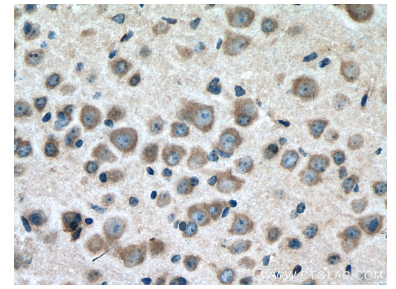
Selected Validation Data



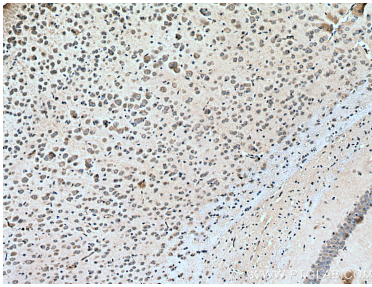
Various lysates were subjected to SDS PAGE followed by western blot with 12221-1-AP (BMP7 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



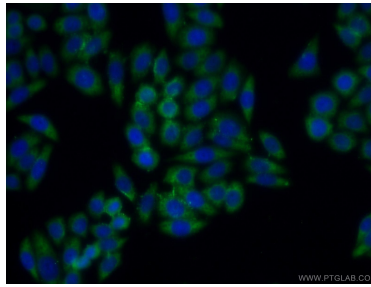
WB result of BMP7 antibody (12221-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-BMP7 transfected HEK-293 cells.



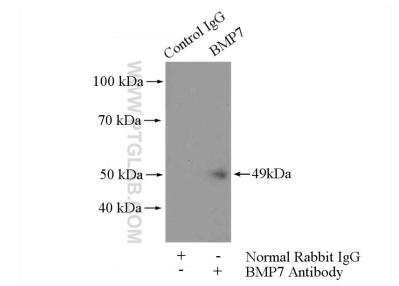
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12221-1-AP (BMP7 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12221-1-AP (BMP7 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of HeLa cells using 12221-1-AP (BMP7 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP Result of anti-BMP7 (IP:12221-1-AP, 4ug; Detection:12221-1-AP 1:800) with HEK-293 cells lysate 2800ug.