

For Research Use Only

BMP7 Polyclonal antibody

Catalog Number: 12221-1-AP

Featured Product

22 Publications



Basic Information

Catalog Number:

12221-1-AP

Size:

150ul, Concentration: 400 ug/ml by Nanodrop and 267 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG2902

GenBank Accession Number:

BC008584

GeneID (NCBI):

655

UNIPROT ID:

P18075

Full Name:

bone morphogenetic protein 7

Calculated MW:

431 aa, 49 kDa

Observed MW:

43-49 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:2000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human

Cited Species:

human, rat

Positive Controls:

WB : MCF-7 cells, HEK-293 cells

IP : HEK-293 cells,

IHC : human kidney tissue, human bladder tissue, human renal cell carcinoma tissue

IF/ICC : HeLa cells,

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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

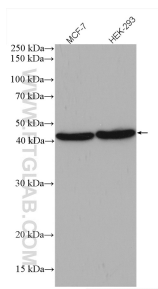
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

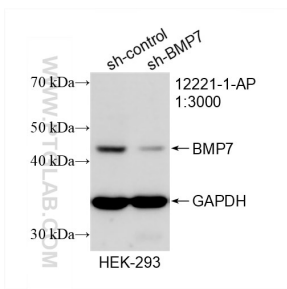
E: proteintech@ptglab.com
W: ptglab.com

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

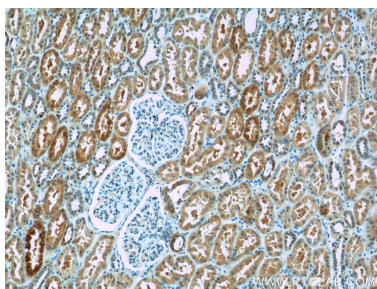
Selected Validation Data



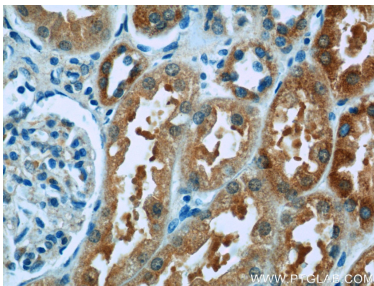
Various lysates were subjected to SDS PAGE followed by western blot with 12221-1-AP (BMP7 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



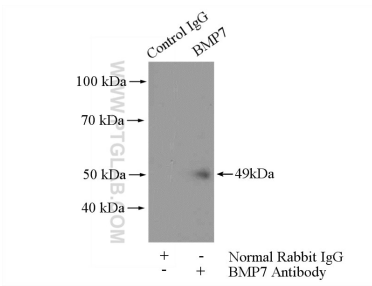
WB result of BMP7 antibody (12221-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-BMP7 transfected HEK-293 cells.



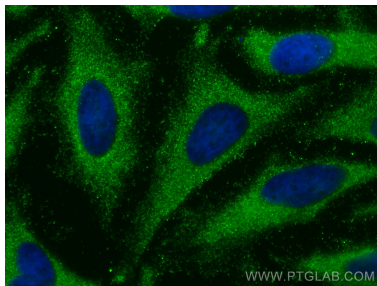
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 12221-1-AP (BMP7 Antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 12221-1-AP (BMP7 Antibody) at dilution of 1:50 (under 40x lens).



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



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using BMP7 antibody (12221-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).