

BMP7 Polyclonal Antibody

Catalog number: 12221-1-AP

Size: 27 µg/150 µl

Source: Rabbit

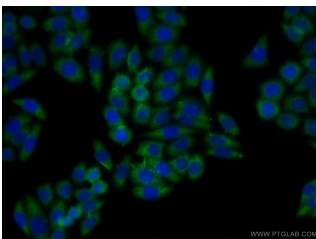
Isotype: IgG

Synonyms:

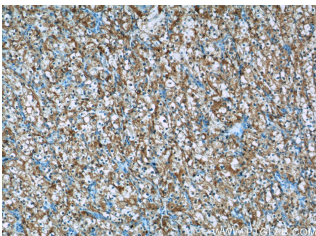
BMP7; BMP 7, BMP7, bone morphogenetic protein 7,

Eptotermin alfa, OP 1, OP1,

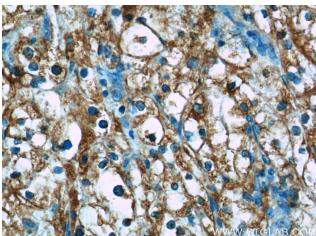
Osteogenic protein 1



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)



Immunohistochemistry of paraffin-embedded human renal cell carcinoma tissue slide using 12221-1-AP (BMP7 Antibody) at dilution of 1:50 (under 10x lens)



Immunohistochemistry of paraffin-embedded human renal cell carcinoma tissue slide using 12221-1-AP (BMP7 Antibody) at dilution of 1:50 (under 40x lens)

Background

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 (TGFB) 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).

Applications

Tested applications:	ELISA, IHC, WB, IP, IF
Cited applications:	IHC
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Human
Calculated BMP7 MW:	431aa, 49 kDa
Observed BMP7 MW:	49 kDa
Positive WB detected in	HEK-293 cells, MCF7 cells
Positive IP detected in	HEK-293 cells
Positive IHC detected in	Human renal cell carcinoma tissue, human bladder tissue, human kidney tissue
Positive IF detected in	HeLa cells
Recommended dilution:	WB: 1:500-1:5000 IP: 1:200-1:2000 IHC: 1:20-1:200 IF: 1:20-1:200

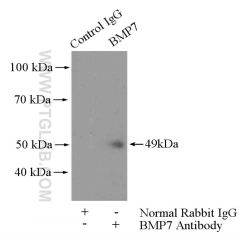
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

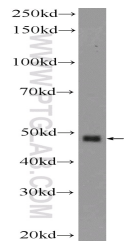
Immunogen:	Ag2902
GenBank accession number:	BC008584
Gene ID (NCBI):	655
Full name:	Bone morphogenetic protein 7

Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.1% sodium azide and 50% glycerol pH 7.3. Store at -20°C.



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



HEK-293 cells were subjected
to SDS PAGE followed by
western blot with 12221-1-
AP(BMP7 Antibody) at
dilution of 1:1000