

For Research Use Only

Osteopontin Polyclonal antibody

Catalog Number: 22952-1-AP **123 Publications**



Basic Information

Catalog Number: 22952-1-AP	GenBank Accession Number: BC007016	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 1000 µg/ml by Nanodrop and 360 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 6696	Recommended Dilutions: WB 1:1000-1:4000 IHC 1:50-1:200 IF 1:20-1:200
Source: Rabbit	Full Name: secreted phosphoprotein 1	
Isotype: IgG	Calculated MW: 314 aa, 35 kDa	
Immunogen Catalog Number: AG19216	Observed MW: 70 kDa, 44-66 kDa	

Applications

Tested Applications: FC, IF, IHC, WB, ELISA	Positive Controls: WB : HEK-293 cells, Jurkat cells, C2C12 cell, HepG2 cells, mouse kidney tissue
Cited Applications: IF, IHC, WB	IHC : human stomach cancer tissue, human colon cancer tissue
Species Specificity: human, rat, mouse	IF : HepG2 cells,
Cited Species: bovine, human, mouse, 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

Osteopontin (OPN), also known as SPP1, is a secreted glycoprophosphoprotein that belongs to the small integrin-binding ligand N-linked glycoprotein (SIBLING) family. Originally isolated from bone, OPN has been found in kidney, vascular tissues, biological fluids, and various tumor tissues (PMID: 15138464; 16406521). OPN can interact with CD44 and integrins and regulate diverse biological processes. It has a multifaceted role in bone development and remodeling, and is also involved in the inflammatory and immune response, oncogenesis and cancer progression. The very acidic nature of OPN, as well as the presence of variable posttranslational modifications, has led to anomalous migration in SDS-polyacrylamide gels and therefore to reports of different molecular weights for OPN (PMID: 8293561). Depending on the cell and tissue source and/or the SDS-PAGE system, OPN migrates with a molecular weight of 44-80 kDa, as well as at some smaller bands correspond to peptide fragments (PMID: 8195113; 17890765).

Notable Publications

Author	Pubmed ID	Journal	Application
Rupesh Kandel	34579527	ACS Appl Mater Interfaces	WB, IF
Guangchun Dai	33102476	Front Cell Dev Biol	IHC
Hong Liu	28944996	J Cell Mol Med	WB

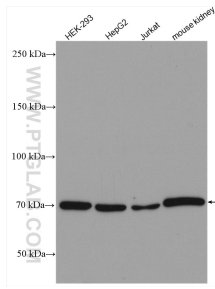
Storage

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

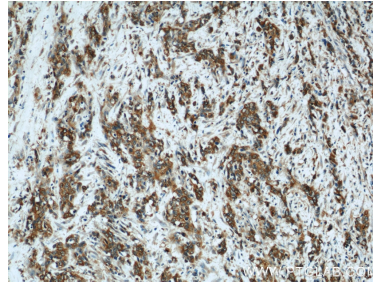
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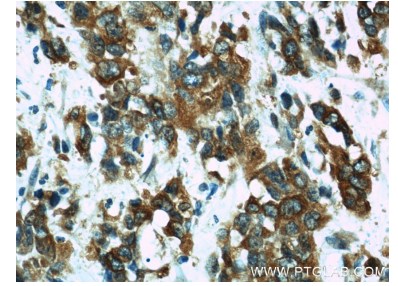
Selected Validation Data



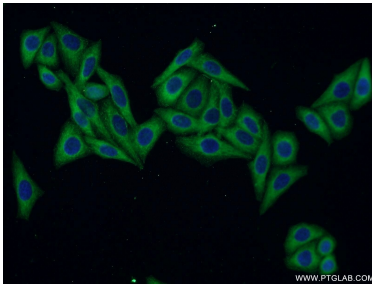
Various lysates were subjected to SDS PAGE followed by western blot with 22952-1-AP (Osteopontin antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



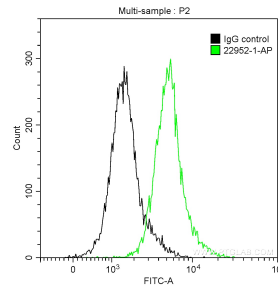
Immunohistochemical analysis of paraffin-embedded human stomach cancer using 22952-1-AP (Osteopontin antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human stomach cancer using 22952-1-AP (Osteopontin antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescent analysis of HepG2 cells using 22952-1-AP (Osteopontin antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10⁶ HepG2 cells were intracellularly stained with 0.2 ug Anti-Human Osteopontin (22952-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (green), or stained with 0.2 ug isotype control and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (black). Cells were fixed with 90% MeOH.