For Research Use Only

Osteopontin Polyclonal antibody

Catalog Number:22952-1-AP Featured Product 240 Publications

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Basic Information

Catalog Number:
22952-1-AP

Size:
150ul , Concentration: 1000 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG19216

GenBank Accession Number:
BC007016

GeneID (NCBI):
6696

Full Name:
secreted phosphoprotein 1

Calculated MW:
314 aa, 35 kDa

Observed MW:
70 kDa, 44-66 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:4000
IHC 1:250-1:1000
IF 1:20-1:200

Applications

Tested Applications:
FC, IF, IHC, WB, ELISA

Cited Applications:
CoIP, ELISA, IF, IHC, WB

Species Specificity:
human, rat, mouse

Cited Species:
human, rat, mouse, rabbit, bovine

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

Positive Controls:

WB : HEK-293 cells, Jurkat cells, C2C12 cell, HepG2 cells, mouse kidney tissue

IHC : mouse kidney tissue, mouse lung tissue

IF : HepG2 cells,

Background Information

Osteopontin (OPN), also known as SPP1, is a secreted glycophosphoprotein that belongs to the small integrin-binding ligand N-linked glycoprotein (SIBLING) family. Originally isolated from bone, OPN has been found in kidneys, 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 corresponding to peptide fragments (PMID: 8195113; 17890765).

Notable Publications

Author	Pubmed ID	Journal	Application
Rupesh Kandel	34579527	ACS Appl Mater Interfaces	WB,IF
Yuan-Wei Zhang	36196151	J Orthop Translat	IHC
Guangchun Dai	33102476	Front Cell Dev Biol	IHC

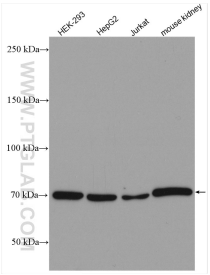
Storage

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

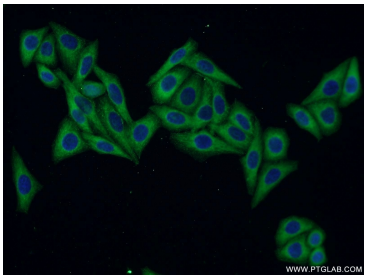
*** 20ul sizes contain 0.1% BSA

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

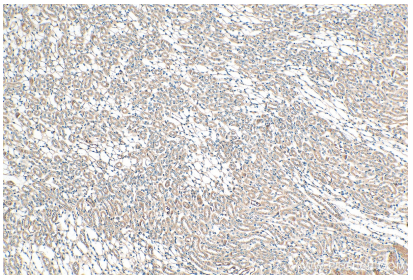
Selected Validation Data



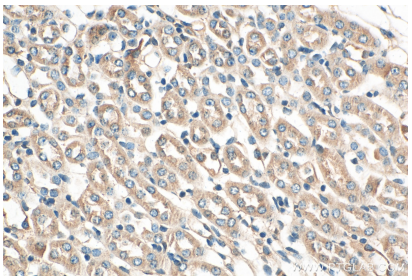
Various lysates were subjected to SDS PAGE followed by western blot with 22952-1-AP (Osteopontin antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



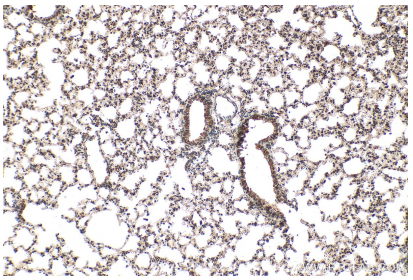
Immunofluorescent analysis of HepG2 cells using 22952-1-AP (Osteopontin antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



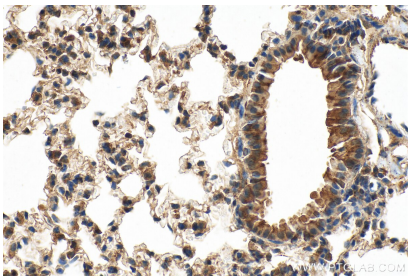
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 22952-1-AP (Osteopontin antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



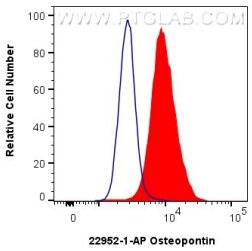
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 22952-1-AP (Osteopontin antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 22952-1-AP (Osteopontin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 22952-1-AP (Osteopontin antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10^6 HepG2 cells were intracellularly stained with 0.5 ug Anti-Human Osteopontin (22952-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.5 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).

1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human Osteopontin (22952-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP, Clone:) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).