For Research Use Only

Osteopontin Recombinant antibody

Catalog Number:83341-1-RR

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Basic Information

Catalog Number:
83341-1-RR

Size:
100ul , Concentration: 1000 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC007016

GeneID (NCBI):
6696

UNIPROT ID:
P10451-5

Full Name:
secreted phosphoprotein 1

Calculated MW:
314 aa, 35 kDa

Observed MW:
60-66 kDa

Purification Method:
Protein A purification

CloneNo.:
240206A2

Recommended Dilutions:
WB 1:1000-1:6000
IHC 1:200-1:800
IF/ICC 1:125-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Species Specificity:
human, mouse

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 : MOLT-4 cells, HepG2 cells, HEK-293 cells

IHC : human cervical squamous cancer tissue,

IF/ICC : RAW 264.7 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).

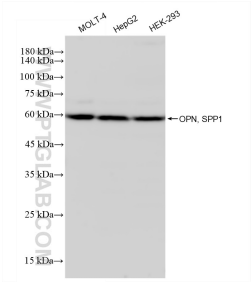
Storage

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

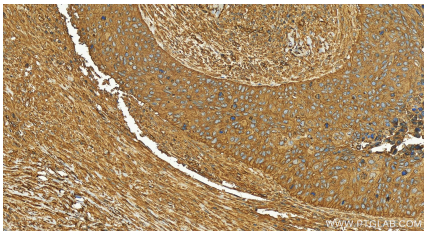
*** 20ul sizes contain 0.1% BSA

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

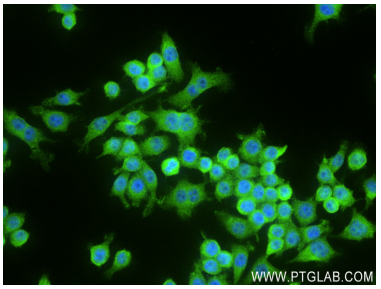
Selected Validation Data



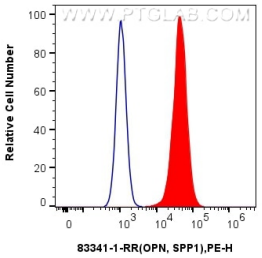
Various lysates were subjected to SDS PAGE followed by western blot with 83341-1-RR (OPN, SPP1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



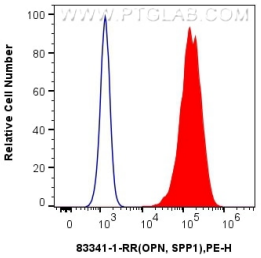
Immunohistochemical analysis of paraffin-embedded human cervical squamous cancer tissue slide using 83341-1-RR (Osteopontin antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



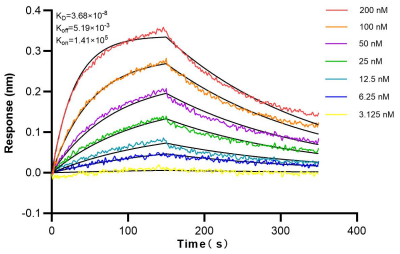
Immunofluorescent analysis of (4% PFA) fixed RAW 264.7 cells using OPN, SPP1 antibody (83341-1-RR, Clone: 240206A2) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10^6 U-937 cells were intracellularly stained with 0.25 ug OPN, Spp1 Recombinant Antibody (83341-1-RR, Clone:240206A2) and PE-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



1x10^6 A549 cells were intracellularly stained with 0.25 ug OPN, Spp1 Recombinant Antibody (83341-1-RR, Clone:240206A2) and PE-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83341-1-RR against Human OPN/SPP1 were performed. The affinity constant is 36.8 nM.