

For Research Use Only

Osteopontin Recombinant antibody

Catalog Number: 83341-2-RR



Basic Information

Catalog Number: 83341-2-RR	GenBank Accession Number: BC007016	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 6696	CloneNo.: 240206B7
Source: Rabbit	UNIPROT ID: P10451-5	Recommended Dilutions: IHC 1:50-1:500 IF/ICC 1:125-1:500
Isotype: IgG	Full Name: secreted phosphoprotein 1	
	Calculated MW: 314 aa, 35 kDa	

Applications

Tested Applications:

IHC, IF/ICC, ELISA

Species Specificity:

human, mouse

Positive Controls:

IHC : mouse lung tissue,

IF/ICC : HepG2 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

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 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

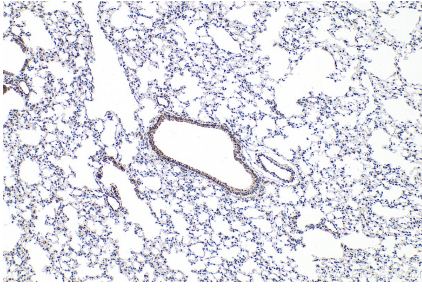
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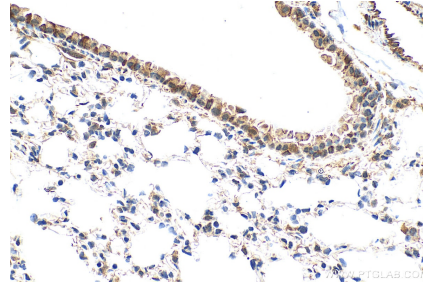
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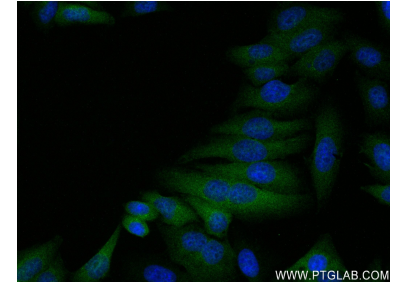
Selected Validation Data



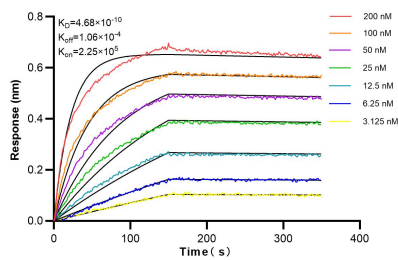
Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 83341-2-RR (OPN, SPP1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 83341-2-RR (OPN, SPP1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using OPN, SPP1 antibody (83341-2-RR, Clone: 240206B7) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 83341-2-RR against Human OPN/SPP1 were performed. The affinity constant is 0.468 nM.