

For Research Use Only

Osteopontin Recombinant antibody

Catalog Number: 80912-4-RR **2 Publications**



Basic Information

Catalog Number: 80912-4-RR	GenBank Accession Number: BC007016	Purification Method: Protein A purification
Concentration: 1000 µg/ml	GeneID (NCBI): 6696	CloneNo.: 6B11
Source: Rabbit	UNIPROT ID: P10451-5	Recommended Dilutions: WB 1:2000-1:12800
Isotype: IgG	Full Name: secreted phosphoprotein 1	
Immunogen Catalog Number: AG19216	Calculated MW: 314 aa, 35 kDa	
	Observed MW: 70 kDa, 44-66 kDa	

Applications

Tested Applications: WB, FC (Intra), ELISA	Positive Controls: WB : HEK-293 cells, HepG2 cells, C2C12 cells, mouse kidney tissue, rat kidney tissue
Cited Applications: WB	
Species Specificity: human, mouse, rat	
Cited Species: human	

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).

Notable Publications

Author	Pubmed ID	Journal	Application
Songyun Zhao	39143438	J Neurooncol	WB
Yefan Yang	38987572	Cell Death Dis	WB

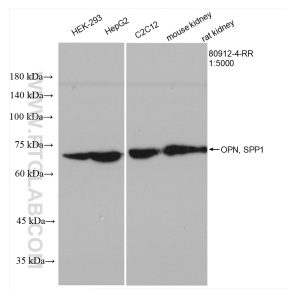
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol
Aliquoting is unnecessary for -20°C storage

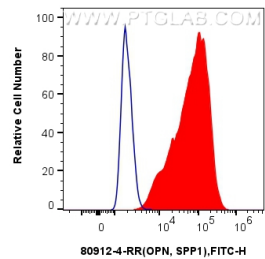
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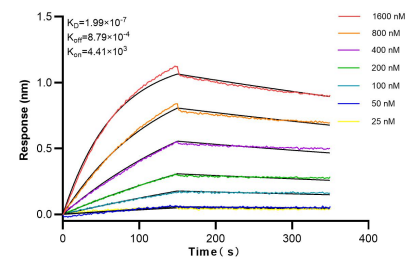
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 80912-4-RR (OPN, SPP1) antibody at dilution of 1:5000 incubated at room temperature for 1.5 hours.



1x10⁶ HepG2 cells were intracellularly stained with 0.25 ug OPN, SPP1 Recombinant antibody (80912-4-RR, Clone:6B11) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2)(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 80912-4-RR against Human OPN, SPP1 were performed. The affinity constant is 199 nM.