

For Research Use Only

Osteopontin Recombinant antibody

Catalog Number: 80912-4-RR

2 Publications



Basic Information

Catalog Number:

80912-4-RR

Size:

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

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG19216

GenBank Accession Number:

BC007016

GeneID (NCBI):

6696

UNIPROT ID:

P10451-5

Full Name:

secreted phosphoprotein 1

Calculated MW:

314 aa, 35 kDa

Observed MW:

70 kDa, 44-66 kDa

Purification Method:

Protein A purification

CloneNo.:

6B11

Recommended Dilutions:

WB 1:2000-1:12800

Applications

Tested Applications:

WB, FC (Intra), ELISA

Cited Applications:

WB

Species Specificity:

human, mouse, rat

Cited Species:

human

Positive Controls:

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

Background Information

Osteopontin (OPN), also known as SPP1, is a secreted glycoposphoprotein 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

*** 20ul sizes contain 0.1% BSA

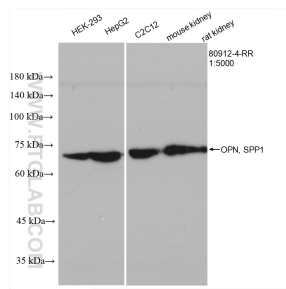
For technical support and original validation data for this product please contact:

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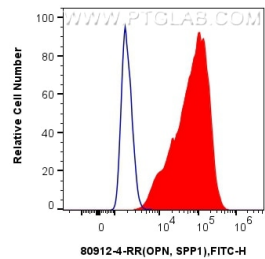
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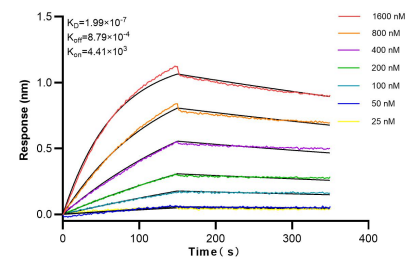
Selected Validation Data



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.