

For Research Use Only

# Osteopontin Recombinant antibody, PBS Only

Catalog Number:80912-4-PBS



## Basic Information

|  |  |   |
|--|--|---|
| <b>Catalog Number:</b><br>80912-4-PBS                          | <b>GenBank Accession Number:</b><br>BC007016   | <b>Purification Method:</b><br>Protein A purification |
| <b>Size:</b><br>100ug , Concentration: 1 mg/ml by<br>Nanodrop; | <b>GeneID (NCBI):</b><br>6696                  | <b>CloneNo.:</b><br>6B11                              |
| <b>Source:</b><br>Rabbit                                       | <b>UNIPROT ID:</b><br>P10451-5                 |   |
| <b>Isotype:</b><br>IgG   | <b>Full Name:</b><br>secreted phosphoprotein 1 |   |
| <b>Immunogen Catalog Number:</b><br>AG19216                    | <b>Calculated MW:</b><br>314 aa, 35 kDa        |   |
|  | <b>Observed MW:</b><br>70 kDa, 44-66 kDa       |   |

## Applications

**Tested Applications:**  
WB, FC (Intra), Indirect ELISA

**Species Specificity:**  
human, mouse, rat

## 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

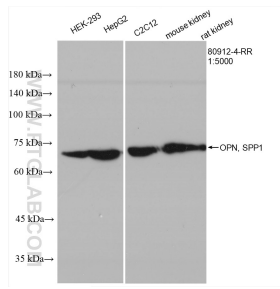
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

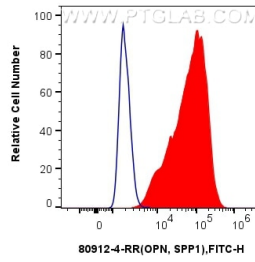
For technical support and original validation data for this product please contact:  
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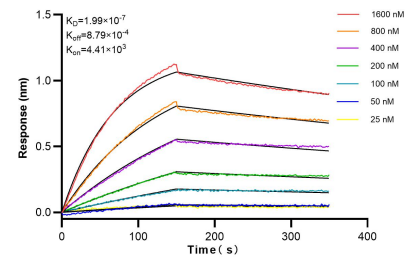
## Selected Validation Data



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. This data was developed using the same antibody clone with 80912-4-PBS in a different storage buffer formulation.



$1 \times 10^6$  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). This data was developed using the same antibody clone with 80912-4-PBS in a different storage buffer formulation.



Bi-layer interferometry (BLI) kinetic assays of 80912-4-RR against Human OPN, SPP1 were performed. The affinity constant is 199 nM.