

For Research Use Only

# Osteopontin Recombinant antibody

Catalog Number: 83413-5-RR



## Basic Information

<b>Catalog Number:</b> 83413-5-RR	<b>GenBank Accession Number:</b> NM_001204233.1	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 20750	<b>CloneNo.:</b> 240250H3
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q547B5	<b>Recommended Dilutions:</b> IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> secreted phosphoprotein 1	
	<b>Calculated MW:</b> 32kd	

## Applications

<b>Tested Applications:</b> IF/ICC, ELISA	<b>Positive Controls:</b> IF/ICC : RAW 264.7 cells,
<b>Species Specificity:</b> mouse	

## Background Information

Osteopontin (OPN) is also named as 2AR, minopontin, bone sialoprotein 1, Spp1, Eta-1 and Op, and belongs to the osteopontin family. Osteopontin is major non-collagenous bone protein that binds tightly to hydroxyapatite. It is a highly phosphorylated glycoprophosphoprotein having acidic characteristics and rich in aspartic acid (PMID: 30003880). And it acts as a cytokine involved in enhancing production of interferon-gamma and interleukin-12 and reducing production of interleukin-10 and is essential in the pathway that leads to type I immunity (PMID:2351930, PMID:10657301). OPN, a multifunctional protein, has important functions on cardiovascular diseases, cancer, diabetes and kidney stone diseases and in the process of inflammation, biomineralization, cell viability and wound healing (PMID: 30003880). Osteopontin (OPN) is a pleiotropic glycoprotein expressed in various cell types in animals and in humans, including bone, immune, smooth muscle, epithelial and endothelial cells. Moreover, OPN is found in kidneys (in the thick ascending limbs of the loop of Henle and in distal nephrons) and urine (PMID:30456594). Osteopontin (OPN) is an acidic 60-70 kDa glycoprotein that is cleaved by proteases to yield 45-kDa and 24-kDa fragments (PMID: 10491621, PMID: 1995615).

## Storage

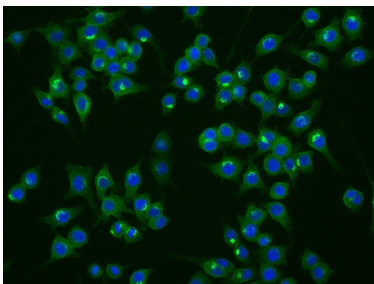
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

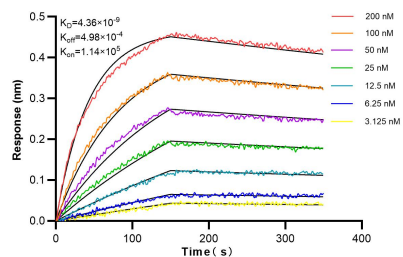
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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed RAW 264.7 cells using Osteopontin antibody (83413-5-RR, Clone: 240250H3 ) at dilution of 1:250 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 83413-5-RR against Mouse Osteopontin were performed. The affinity constant is 4.36 nM.