

For Research Use Only

Osteopontin Polyclonal antibody

Catalog Number: 30200-1-AP

4 Publications



Basic Information

Catalog Number:

30200-1-AP

Size:

150ul, Concentration: 350 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_001204233.1

GeneID (NCBI):

20750

UNIPROT ID:

P10923

Full Name:

secreted phosphoprotein 1

Calculated MW:

32kd

Observed MW:

32 kDa, 60-70 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:4000

IF-P 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IF/ICC, IF-P, ELISA

Cited Applications:

WB, IHC

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Positive Controls:

WB : RAW 264.7 cells, rat kidney tissue, human kidney tissue

IF-P : mouse stomach tissue,

IF/ICC : RAW 264.7 cells,

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 glycoprotein 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)

Notable Publications

Author	Pubmed ID	Journal	Application
You Li	39984770	Inflammation	WB
Zhiwen Tao	39842659	Osteoarthritis Cartilage	IHC
Lifang Zhang	39487512	J Orthop Surg Res	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

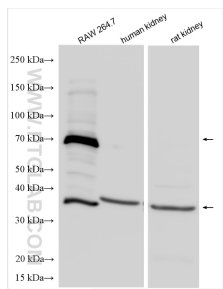
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

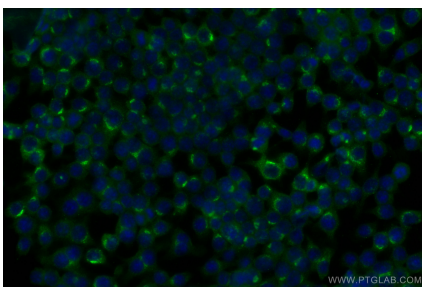
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

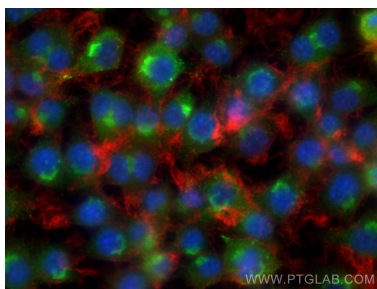
Selected Validation Data



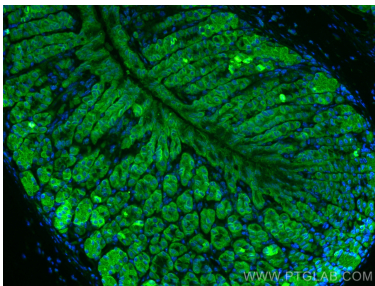
Various lysates were subjected to SDS PAGE followed by western blot with 30200-1-AP (Osteopontin antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



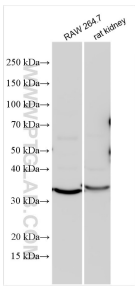
Immunofluorescent analysis of (-20°C Ethanol) fixed RAW 264.7 cells using Osteopontin antibody (30200-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed RAW 264.7 cells using Osteopontin antibody (30200-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse stomach tissue using Osteopontin antibody (30200-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 30200-1-AP (Osteopontin antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.