

For Research Use Only

Osteocalcin/OCN Polyclonal antibody

Catalog Number: 23418-1-AP

225 Publications



Basic Information

Catalog Number:

23418-1-AP

Concentration:

500 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG20065

GenBank Accession Number:

BC113432

GeneID (NCBI):

632

UNIPROT ID:

P02818

Full Name:

bone gamma-carboxylglutamate (gla) protein

Calculated MW:

100 aa, 11 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

IHC 1:50-1:500

IF/ICC 1:200-1:800

Applications

Tested Applications:

IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, pig, canine

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

IHC : mouse testis tissue, human osteosarcoma tissue, human testis tissue, rat testis tissue, mouse kidney tissue

IF/ICC : U2OS cells, NIH/3T3 cells

Background Information

Osteocalcin is a small, highly conserved molecule associated with mineralization of bone matrix. Osteocalcin is specifically expressed in osteoblasts and is the most abundant non-collagenous protein in bone. It regulates the dynamics of new bone formation and bone resorption by interaction with vitamin D, and by influencing the differentiation of osteoblasts. Osteocalcin is also involved in the posttranslational targeting of vitamin K-dependent gamma-carboxylation, which controls blood coagulation.

Notable Publications

Author	Pubmed ID	Journal	Application
Zhijing Song	36246605	Front Genet	
Rupesh Kandel	34579527	ACS Appl Mater Interfaces	IF
Guangchun Dai	33102476	Front Cell Dev Biol	IHC

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

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

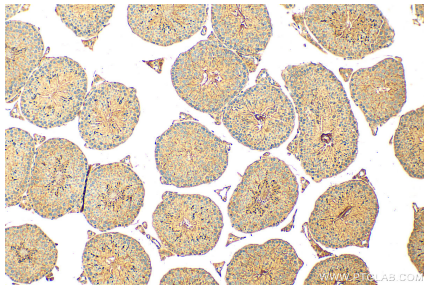
T: 4006900926

E: Proteintech-CN@ptglab.com

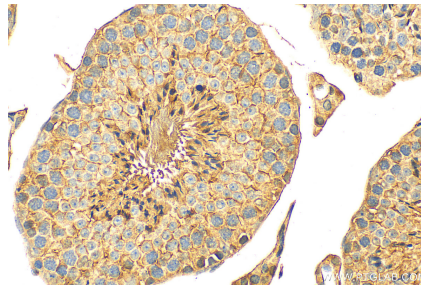
W: ptgcn.com

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

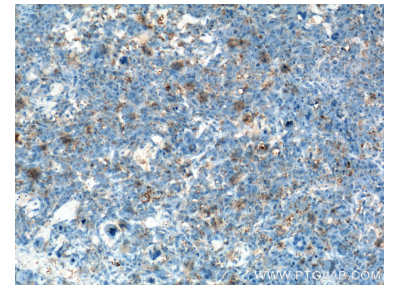
Selected Validation Data



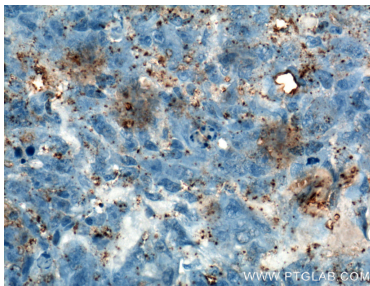
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 23418-1-AP (Osteocalcin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



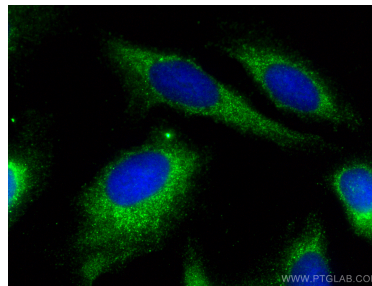
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 23418-1-AP (Osteocalcin antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



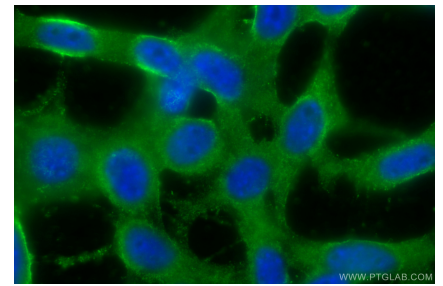
Immunohistochemical analysis of paraffin-embedded human osteosarcoma tissue slide using 23418-1-AP (Osteocalcin Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



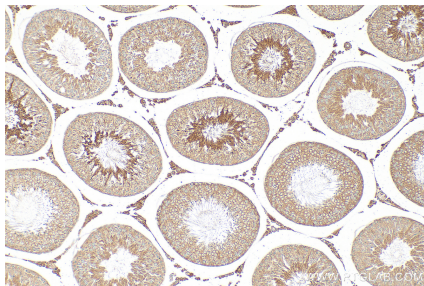
Immunohistochemical analysis of paraffin-embedded human osteosarcoma tissue slide using 23418-1-AP (Osteocalcin Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



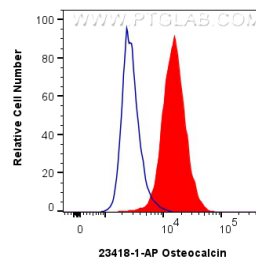
Immunofluorescent analysis of (-20°C Methanol) fixed U2OS cells using Osteocalcin antibody (23418-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed NIH/3T3 cells using Osteocalcin antibody (23418-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunohistochemical analysis of paraffin-embedded rat testis tissue slide using 23418-1-AP (Osteocalcin/OCN antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ NIH/3T3 cells were intracellularly stained with 0.4 ug Anti-Human Osteocalcin (23418-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone:) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).