

Osteopontin Rabbit pAb

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Catalog # AP52114

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P10451
Reactivity	Rat, Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35423
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human OPN
Epitope Specificity	221-280/294
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Osteopontin is the principal phosphorylated glycoprotein of bone and is expressed in a limited number of other tissues including dentine. Osteopontin is produced by osteoblasts under stimulation by calcitriol and binds tightly to hydroxyapatite. It is also involved in the anchoring of osteoclasts to the mineral of bone matrix via the vitronectin receptor, which has specificity for osteopontin. Osteopontin is overexpressed in a variety of cancers, including lung, breast, colorectal, stomach, ovarian, melanoma and mesothelioma.

Additional Information

Gene ID	6696
Other Names	Osteopontin, Bone sialoprotein 1, Nephropontin, Secreted phosphoprotein 1, SPP-1, Urinary stone protein, Uropontin, SPP1, BNSP, OPN
Dilution	WB=1:500-2000,IHC-P=1:500-2000,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SPP1
Synonyms	BNSP, OPN
Function	Major non-collagenous bone protein that binds tightly to hydroxyapatite. Appears to form an integral part of the mineralized matrix. Probably important to cell-matrix interaction.
Cellular Location	Secreted
Tissue Location	Detected in cerebrospinal fluid and urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717) Bone. Found in plasma.

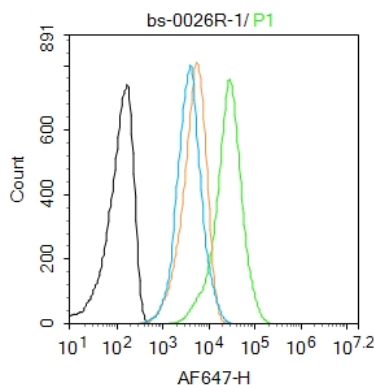
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References

Craig A.M.,et al.J. Biol. Chem. 264:9682-9689(1989).
Patarca R.,et al.J. Exp. Med. 170:145-161(1989).
Miyazaki Y.,et al.Nucleic Acids Res. 17:3298-3298(1989).
Miyazaki Y.,et al.J. Biol. Chem. 265:14432-14438(1990).
Worcester E.M.,et al.J. Bone Miner. Res. 7:1029-1036(1992).

Images



Blank control: HepG2.

Primary Antibody (green line): Rabbit Anti-Osteopontin antibody (AP52114)

Dilution: 1 µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Sample:

Lane 1: HepG2 (Human) Cell Lysate at 30 ug

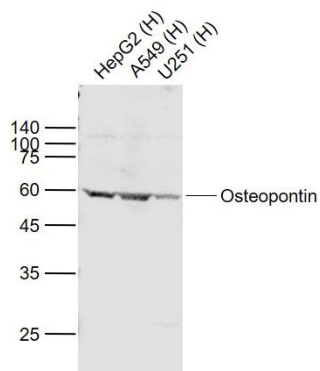
Lane 2: A549 (Human) Cell Lysate at 30 ug

Lane 3: U251 (Human) Cell Lysate at 30 ug

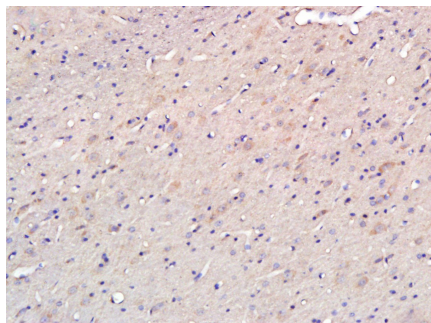
Primary: Anti-Osteopontin (AP52114) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 34 kD



Observed band size: 60 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
 Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
 Incubation: Anti-osteopontin Polyclonal Antibody, Unconjugated(AP52114) 1:300, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.