bs-23258R **[Primary Antibody]**

Osteopontin Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 25353 **SWISS:** P08721

Target: Osteopontin

Immunogen: KLH conjugated synthetic peptide derived from rat osteopontin: 201-314/314.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

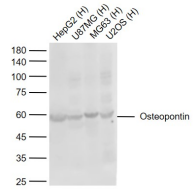
Applications: **WB** (1:500-2000)
IHC-P (1:500-2000)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)

Reactivity: Human, Rat

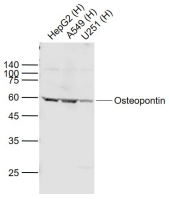
Predicted MW.: 34 kDa

Subcellular Location: Secreted

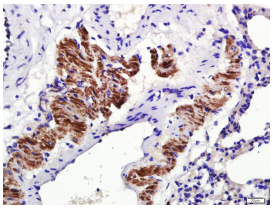
VALIDATION IMAGES



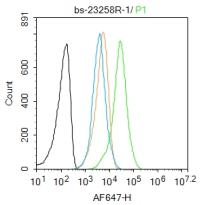
Lane 1: Human HepG2 cell lysates Lane 2: Human U87MG cell lysates Lane 3: Human MG63 cell lysates Lane 4: Human U2OS Cell Lysates Primary: Anti-Osteopontin (bs-23258R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 60 kDa Observed band size: 60 kDa



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 (bs-23258R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 60-65 kD Observed band size: 60 kD



Paraformaldehyde-fixed, paraffin embedded (Rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (osteopontin) Polyclonal Antibody, Unconjugated (bs-23258R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-Osteopontin antibody (bs-23258R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1μg /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.

SELECTED CITATIONS

- **[IF=8.724]** Yong Tang. et al. Phosphorylation inhibition of protein-tyrosine phosphatase 1B tyrosine-152 induces bone regeneration coupled with angiogenesis for bone tissue engineering. Bioact Mater. 2021 Jul;6:2039 IF,IHC ;Mouse. 33511306
- **[IF=8.2]** Jia Gao. et al. Thymosin beta 10 loaded ZIF-8/sericin hydrogel promoting angiogenesis and osteogenesis for bone regeneration. INT J BIOL MACROMOL. 2024 May;267:131562 IHC ;Rat. 38626832
- **[IF=7.242]** Yong Tang. et al. Laminin alpha 4 promotes bone regeneration by facilitating cell adhesion and vascularization. Acta Biomater. 2021 Mar;: IF,IHC ;Mouse. 33711525
- **[IF=6.6]** Lingchao Kong. et al. Tibial cortex transverse transport regulates Orai1/STIM1-mediated NO release and improve the migration and proliferation of vessels via increasing osteopontin expression. J ORTHOP TRANSL. 2024 Mar;45:107 WB ;Human,Rat. 38524870
- **[IF=5.8]** Ziyan Yu. et al. Precision Reactive Species Scavenging Enabled by Engineered Manganese-Doped Bimetallic MOF for Tailored Stem Cell Fate Regulation. NANOSCALE. 2025 Apr;: IF ;. 40259797