bs-0431R **[Primary Antibody]**

OPG Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4982 **SWISS:** O00300

Target: OPG

Immunogen: KLH conjugated synthetic peptide derived from human OPG: 221-300/401.

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: Osteoprotegerin (OPG, or osteoclastogenesis inhibitory factor) is a secretory glycoprotein belonging to TNF receptor superfamily. Acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. Inhibits the activation of osteoclasts and promotes osteoclast apoptosis. Bone homeostasis seems to depend on the local RANKL/OPG ratio. May also play a role in preventing arterial calcification. May act as decoy receptor for TRAIL and protect against apoptosis. TRAIL binding blocks the inhibition of osteoclastogenesis. OPG acts as a soluble factor in the regulation of bone mass and may be beneficial in the treatment of osteoporosis with increased osteoclast activity. OPG consists of 401 amino acids with a molecular weight of 44 kDa as a monomer and 90 kDa as a disulphide-linked dimer.

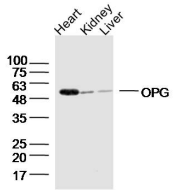
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Cow, Dog)

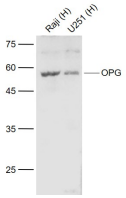
Predicted MW.: 43 kDa

Subcellular Location: Secreted

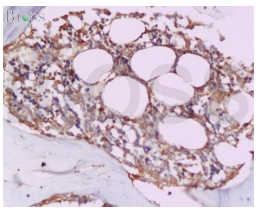
VALIDATION IMAGES



Sample: Heart (Mouse) Lysate at 40 ug Kidney (Mouse) Lysate at 40 ug Liver (Mouse) Lysate at 40 ug Primary: Anti-OPG(bs-0431R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 43kD Observed band size: 50kD



Sample: Lane 1: Raji (Human) Cell Lysate at 30 ug Lane 2: U251 (Human) Cell Lysate at 30 ug Primary: Anti-OPG (bs-0431R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 55 kD Observed band size: 55 kD



Tissue/cell: rat tibia 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-Osteoprotegerin Polyclonal Antibody, Unconjugated(bs-0431R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=13.273]** Xinkun Shen. et al. Improvement of aqueous stability and anti-osteoporosis properties of Zn-MOF coatings on titanium implants by hydrophobic raloxifene. Chem Eng J. 2021 Oct;:133094 WB ;Mouse. 10.1016/j.cej.2021.133094
- **[IF=9.5]** Bohui Liu. et al. Near-Infrared Light-Controlled MicroRNA-21-Loaded Upconversion Nanoparticles to Promote Bone Formation in the Midpalatal Suture. ACS APPL MATER INTER. 2023;XXXX(XXX):XXX-XXX IHC ;Mouse. 37694956

- **[IF=8.755]** Qianqian Guo. et al. Conditioned media of deer antler stem cells accelerate regeneration of alveolar bone defects in rats. CELL PROLIFERAT. 2023 Mar;:e13454 IHC ;Deer,Rat. 36929672
- **[IF=6.8]** Lihua Feng. et al. Maternal F-53B exposure during pregnancy and lactation affects bone growth and development in male offspring. ECOTOX ENVIRON SAFE. 2024 Jul;279:116501 WB ;Mouse. 38805831
- **[IF=6.289]** Yutao Cui. et al. Functionalized anti-osteoporosis drug delivery system enhances osseointegration of an inorganic–organic bioactive interface in osteoporotic microenvironment. Mater Design. 2021 Aug;206:109753 IHC ;Rabbit. 10.1016/j.matdes.2021.109753