bs-20624R **[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: 201-300/401.

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.

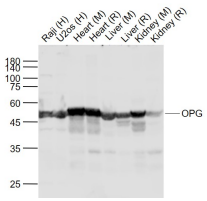
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

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

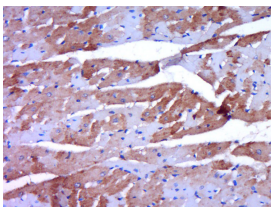
Predicted MW.: 44 kDa

Subcellular Location: Secreted

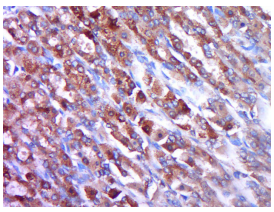
VALIDATION IMAGES



Sample: Lane 1: Raji (Human) Cell Lysate at 30 ug Lane 2: U2os (Human) Cell Lysate at 30 ug Lane 3: Heart (Mouse) Lysate at 40 ug Lane 4: Heart (Rat) Lysate at 40 ug Lane 5: Liver (Mouse) Lysate at 40 ug Lane 6: Liver (Rat) Lysate at 40 ug Lane 7: Kidney (Mouse) Lysate at 40 ug Lane 8: Kidney (Rat) Lysate at 40 ug Primary: Anti-OPG (bs-20624R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 55 kD Observed band size: 55 kD



Paraformaldehyde-fixed, paraffin embedded (Rat heart); 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 (OPG) Polyclonal Antibody, Unconjugated (bs-20624R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat stomach); 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 (OPG) Polyclonal Antibody, Unconjugated (bs-20624R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=17.6]** Qingyun Fu. et al. Polydopamine-modified metal-organic frameworks nanoparticles enhance the corrosion resistance and bioactivity of polycaprolactone coating on high-purity magnesium. J MAGNES ALLOY. 2024 Feb;: IHC ;Rabbit. 10.1016/j.jma.2023.12.014
- **[IF=12.153]** Zhang, Fei. et al. Lnc Tmem235 promotes repair of early steroid-induced osteonecrosis of the femoral

head by inhibiting hypoxia-induced apoptosis of BMSCs. EXP MOL MED. 2022 Nov;:1-16 WB ;Rat. 36380019

- **[IF=7.5]** Jinyong Huang. et al. Isoflavones isolated from chickpea sprouts alleviate ovariectomy-induced osteoporosis in rats by dual regulation of bone remodeling. BIOMED PHARMACOTHER. 2024 Feb;171:116214 IHC ;Rat. 38290254
- **[IF=4.5]** Wang Liu. et al. Yunnan Baiyao Might Mitigate Periodontitis Bone Destruction by Inhibiting Autophagy and Promoting Osteoblast Differentiation in vivo, ex vivo and in vitro. J INFLAMM RES. 2024 Apr 14 IHC,WB ;Rat. 38645877
- **[IF=4.4]** Peipei Shi. et al. Low bone turnover is associated with advanced glycation end-products, oxidative stress, and inflammation induced by type 2 diabetes mellitus. FASEB J. 2024 Aug;38(15):e23871 WB,IF ;Rat. 39109498