SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-RANKL/CD254 antibody

SL0747R

Product Name:	RANKL/CD254
Chinese Name:	骨保护蛋白配体/破骨Cell differentiation因子抗体
Alias:	OPGL; CD254; hRANKL2; ODF; OPGL; Osteoclast differentiation factor; Osteoprotegerin ligand; RANKL; Receptor activator of nuclear factor kappa B ligand; sOdf; SOFA; TNF related activation induced cytokine; TNFSF 11; TNFSF11; TRANCE; Tumor necrosis factor ligand superfamily member 11; Osteoprotegerin Ligand; TNF11_HUMAN.
文献引用 PubMed :	**Specific References(15)**|SL0747R has been referenced in 15 publications. **[IF=1.77]**Li, Ping. "Efficacy and Safety of Echinacoside in a Rat Osteopenia Model." Evidence-Based Complementary and Alternative Medicine 2013 (2013).**Rat**. PubMed:23573159 **[IF=1.68]**Sun, Jiabing, et al. "A Crucial Role of IL-17 in Bone Resorption During Rejection of Fresh Bone Xenotransplantation in Rats." Cell Biochemistry and Biophysics: 1-7.**IHC-P;Rat**. PubMed:25331672 **[IF=1.98]**Yu, Xijiao, et al. "Expression of neuropeptides and bone remodeling-related factors during periodontal tissue regeneration in denervated rats." Journal of Molecular Histology: 1-9.**WB;Rat**. PubMed:25663522 **[IF=2.38]**Zhu, Wenjing, et al. "Effect of PI3K/Akt Signaling Pathway on the Process of Prostate Cancer Metastasis to Bone." Cell Biochemistry and Biophysics (2015): 1-7.**WB;Human**. PubMed:22870197

[IF=2.84]Ota, Takehiro, et al. "Expression of colony-stimulating factor 1 is associated with occurrence of osteochondral change in pigmented villonodular synovitis."Tumor Biology (2015): 1-7.**IHC-P;Human**.

PubMed:25854167

[IF=1.88]Li, Xianxian, et al. "Oral administration of 5-Hydroxytryptophan aggravated periodontitis-induced alveolar bone loss in rats." Archives of Oral Biology(2015).**IHC-P;Rat**.

PubMed:25766472

[IF=0.94]Zhang, Yuanyu, et al. "Mycobacterium tuberculosis 10-kDa co-chaperonin regulates the expression levels of receptor activator of nuclear factor-κB ligand and osteoprotegerin in human osteoblasts." Experimental and Therapeutic Medicine.**WB;Human**.

PubMed:25667654

[IF=2.09]Chen, Zhiguang, et al. "Curcumin alleviates glucocorticoid-induced osteoporosis through the regulation of the Wnt signaling pathway."International Journal of Molecular Medicine.**WB;Rat**.

PubMed:26677102

[IF=2.68]Xiao, Wanan, et al. "Bone fracture healing is delayed in splenectomic rats." Life Sciences (2016).**WB;Rat**.

PubMed:27956350

[IF=2.62]Zhang, Xiaonan, et al. "Ginsenosides Rg3 attenuates glucocorticoid-induced osteoporosis through regulating BMP-2/BMPR1A/Runx2 signaling pathway." Chemico-Biological Interactions 256 (2016): 188-197.**WB;Rat**.

PubMed:27387537

[IF=1.69]Dolci, Gabriel Schmidt, et al. "Atorvastatin-induced osteoclast inhibition reduces orthodontic relapse." American Journal of Orthodontics and Dentofacial Orthopedics 151.3 (2017): 528-538.**IHC-P;Rat**.

PubMed:28257738

[IF=1.56]He, Ming, et al. "Effect of glucocorticoids on osteoclast function in a mouse model of bone necrosis." Molecular medicine reports 14.2 (2016): 1054-1060.**Mouse**.

PubMed:27277157

[IF=2.66]Yu, X., et al. "Denervation effectively aggravates rat experimental

	periodontitis." Journal of Periodontal Research (2017).**WB;Rat**. PubMed:28621056 **[IF=3.08]**Zhan, Fu-Liang, Xin-Yang Liu, and Xing-Bo Wang. "The Role of MicroRNA-143-5p in the Differentiation of Dental Pulp Stem Cells into Odontoblasts by Targeting Runx2 via the OPG/RANKL Signaling Pathway." Journal of Cellular Biochemistry (2017).**WB;Human**. PubMed:28608628 **[IF=1.75]**Chen, Helin, et al. "Intermittent administration of parathyroid hormone ameliorated alveolar bone loss in experimental periodontitis in streptozotocin-induced diabetic rats." Archives of Oral Biology (2017).**IHC-P;Rat**. PubMed:28732226
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/Test IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	35kDa
Cellular localization:	cytoplasmicThe cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human OPGL:210-317/317
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. This protein was shown to be a dentritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early

differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy. Two alternatively spliced transcript variants have been found. [provided by RefSeq, Jul 2008].

Function:
Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive T-cell proliferation. May be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.

Subcellular Location:
Cytoplasm; Secreted and Cell membrane.

Tissue Specificity:
Highest in the peripheral lymph nodes, weak in spleen, peripheral blood Leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid.

Post-translational modifications:
The soluble form of isoform 1 derives from the membrane form by proteolytic processing. The cleavage may be catalyzed by ADAM17.

DISEASE:
Defects in TNFSF11 are the cause of osteopetrosis autosomal recessive type 2 (OPTB2) [MIM:259710]; also known as osteoclast-poor osteopetrosis. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. Autosomal recessive osteopetrosis is usually associated with normal or elevated amount of non-functional osteoclasts. OPTB2 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development.

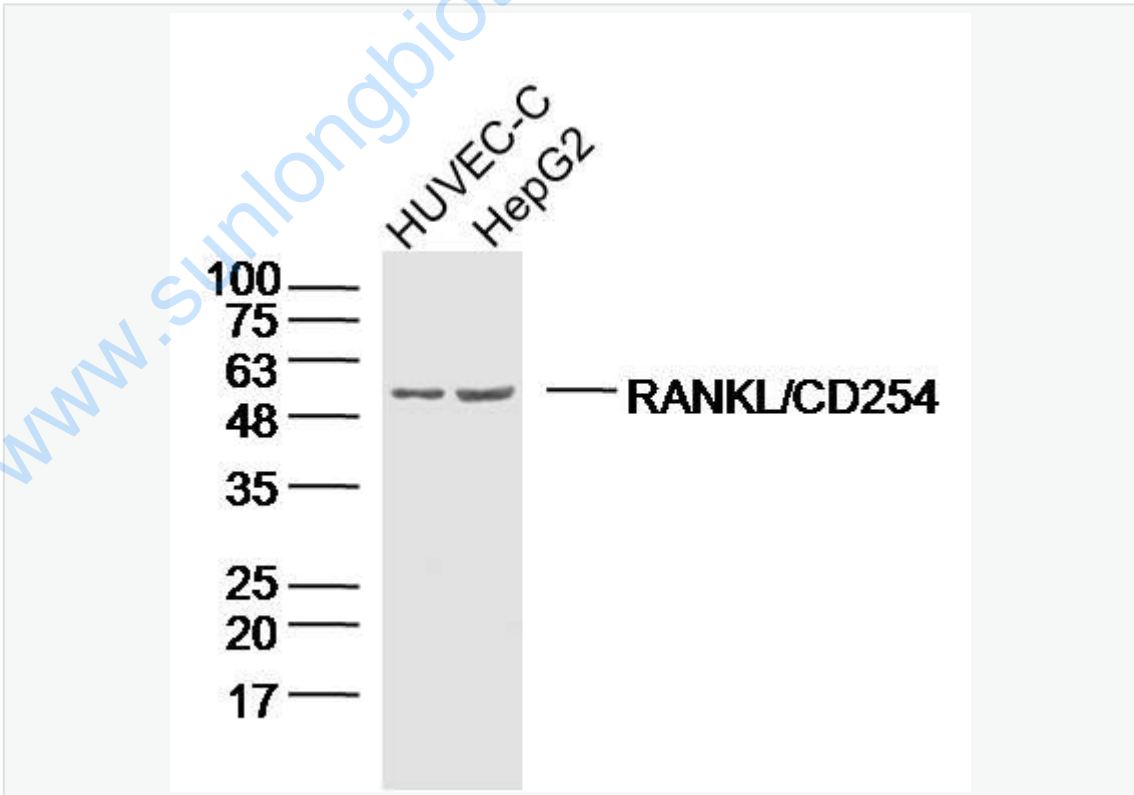
Similarity:
Belongs to the tumor necrosis factor family.

SWISS:
O14788

Gene ID:
8600

Database links:

Entrez Gene: 8600Human

	Entrez Gene: 21943Mouse Omim: 602642Human SwissProt: O14788Human SwissProt: O35235Mouse Unigene: 333791Human Unigene: 249221Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. OPGL骨保护蛋白配体又称骨保护素配体(破骨细胞发育刺激因子)。属Tumour坏死因子TNF-a家族。 OPGL促进破骨细胞的分化和活性,而OPG抑制这些过程。骨髓瘤细胞影响骨髓中这两种蛋白的生理平衡，是发生溶骨性病变的根本所在。
Picture:	 Sample: HUVEC-C Cell (Human) Lysate at 40 ug

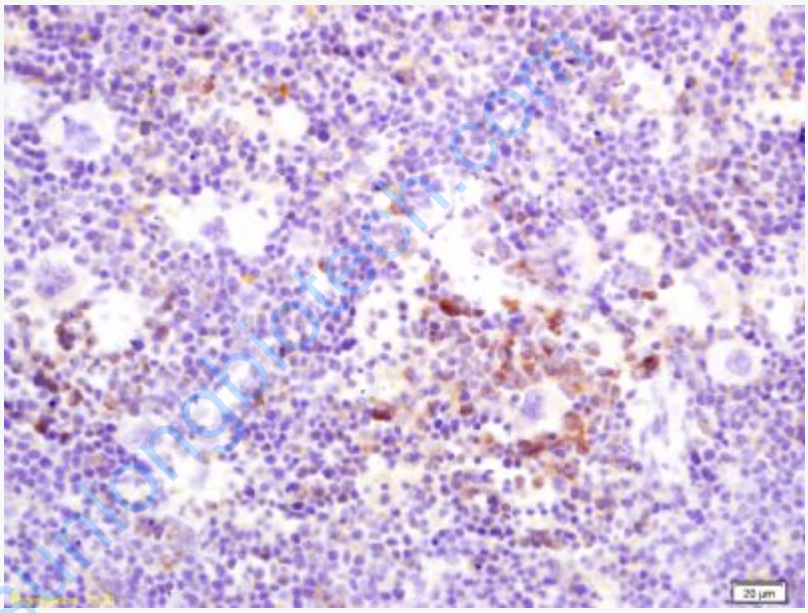
HepG2 Cell (Human) Lysate at 40 ug

Primary: Anti-RANKL/CD254 (SL0747R)at 1/300 dilution

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

Predicted band size: 35kD

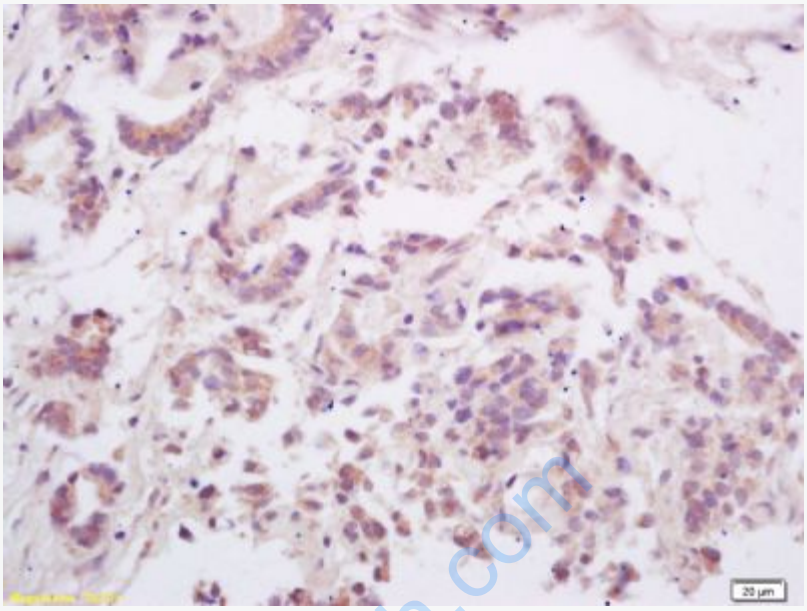
Observed band size: 56kD



Tissue/cell: mouse spleen 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℃ for 20 min;

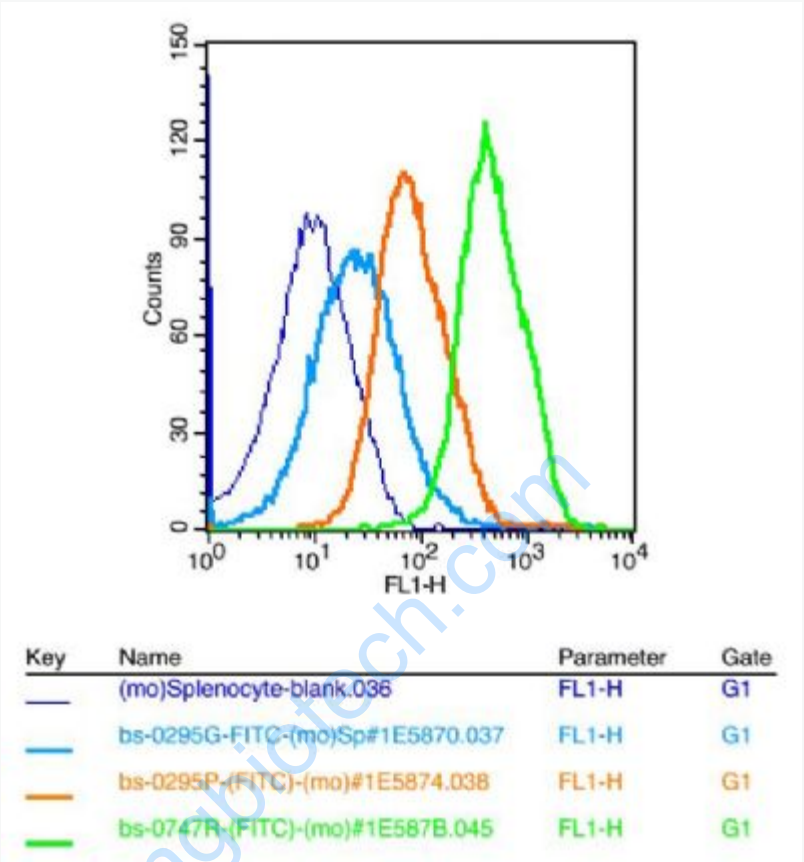
Incubation: Anti-OPGL/RANKL/ODF Polyclonal Antibody, Unconjugated(SL0747R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human gastric carcinoma; 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℃ for 20 min;

Incubation: Anti-OPGL/RANKL/ODF Polyclonal Antibody, Unconjugated(SL0747R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: mouse splenocytes(blue)

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 1μl in 100 μL1X PBS containing 0.5% BSA(green).