SunLong Biotech Co.,LTD
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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.
Research Area	Tumour Cell biology immunology Developmental biology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, (predicted: Rat, Dog,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1μg/Test（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	35kDa
Cellular localization	cytoplasmic The cell membrane Secretory protein
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human OPGL: 210-317/317
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

PubMed PubMed

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].

Product Detail

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: 8600 Human

Entrez Gene: 21943 Mouse

Omim: 602642 Human

SwissProt: O14788 Human

SwissProt: O35235 Mouse

Unigene: 333791 Human

Unigene: 249221 Mouse

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。

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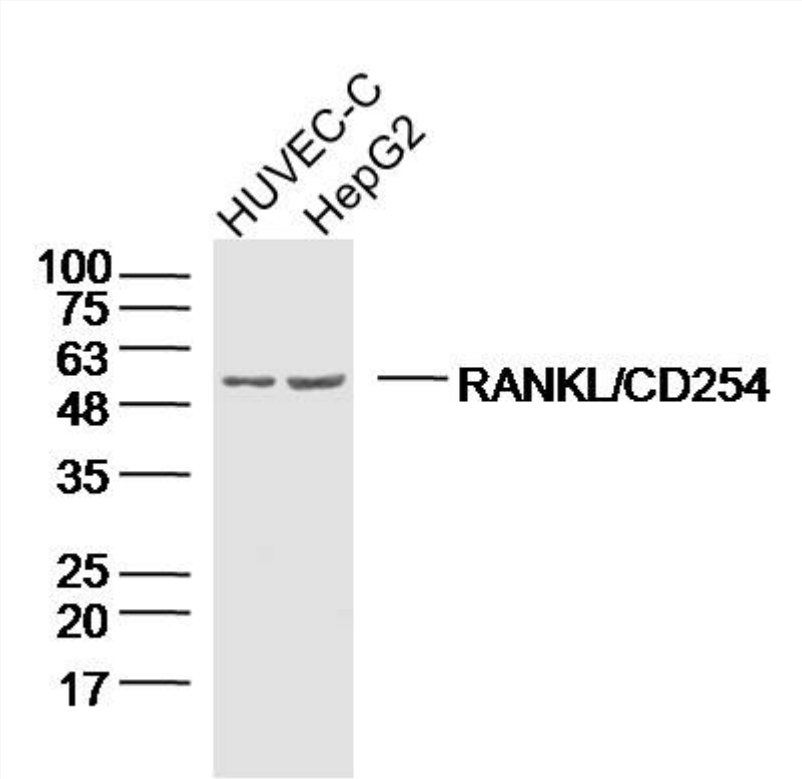
Product Picture



Sample:

HUVEC-C Cell (Human) Lysate at 40 ug

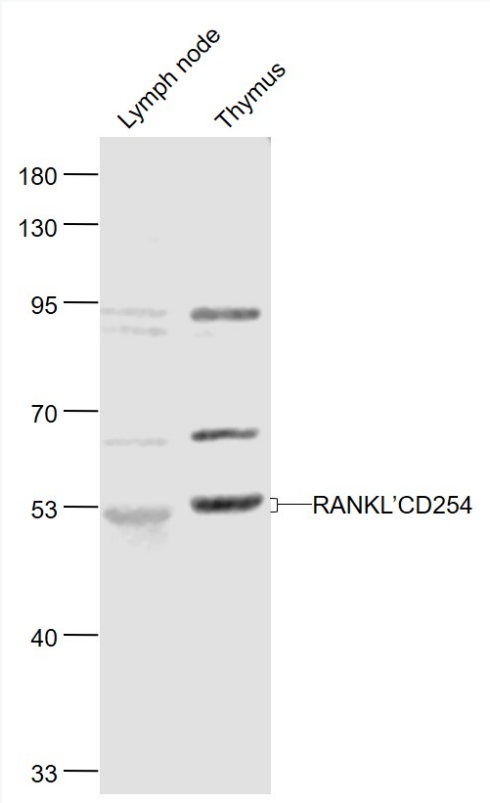
HepG2 Cell (Human) Lysate at 40 ug

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



Sample:

Lymph node(Mouse) Lysate at 40 ug

Thymus(Mouse) Lysate at 40 ug

Primary: Anti-RANKL'CD254 (SL0747R) at 1/500 dilution

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

Predicted band size: 37'50 kD

Observed band size: 50 kD

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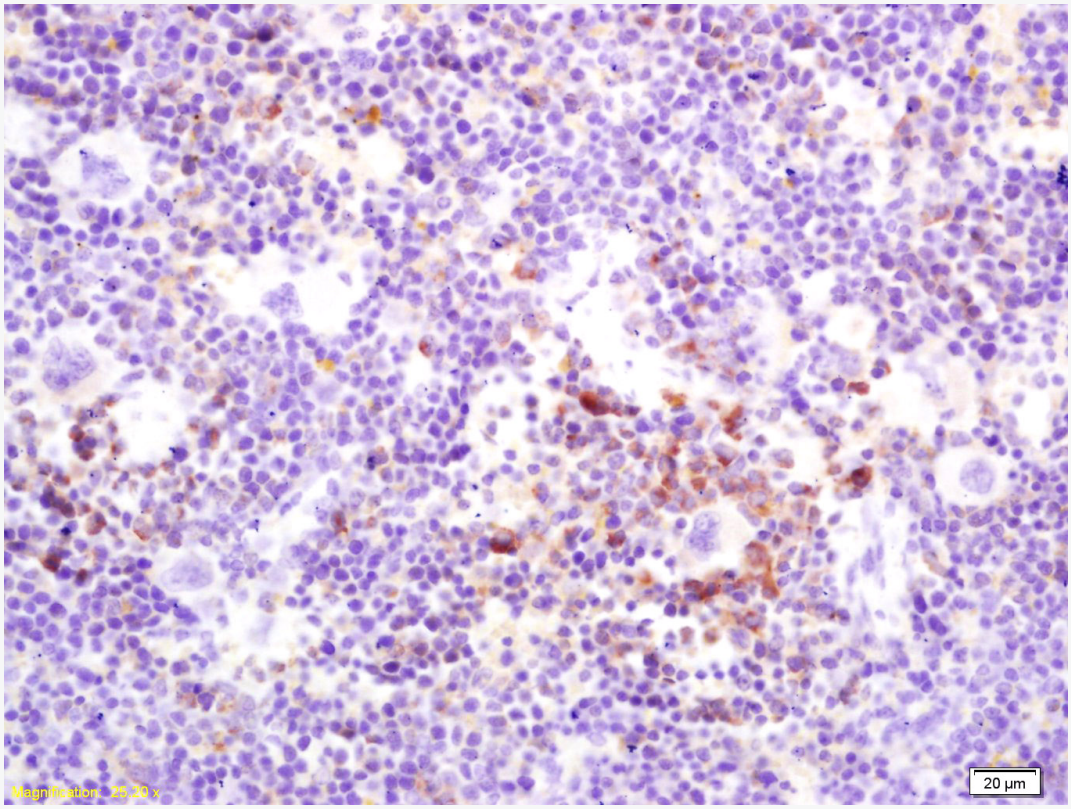

Tissue/cell: mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

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

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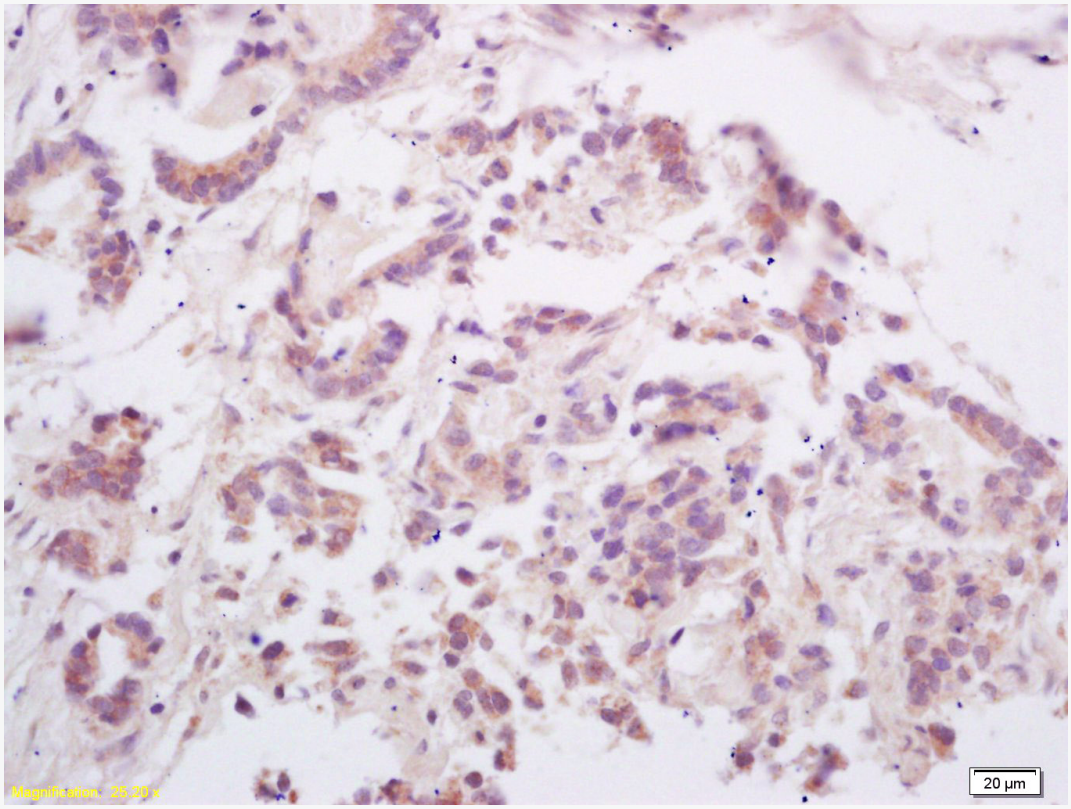

Tissue/cell: human gastric carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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;

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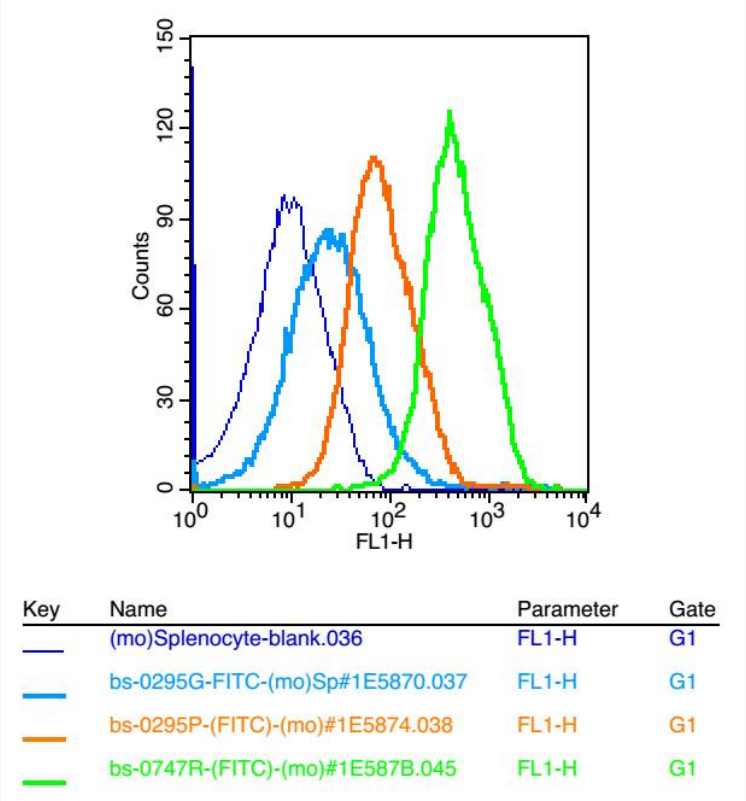

Blank control: mouse splenocytes(blue)

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).