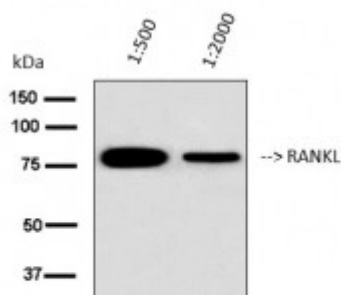


Anti-RANKL antibody



Western Blot (WB) analysis of 293 cells using RANKL Antibody (STJ96769).



Description

RANKL is a protein encoded by the TNFSF11 gene which is approximately 35,4 kDa. RANKL isoform 1 and 3 are localised to the cell membrane and isoform 2 is localised to the cytoplasm. It is involved in PEDF induced signalling, ERK signalling, RANK signalling in osteoclasts and Akt signalling. This protein falls under the tumour necrosis factor cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. It has been shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. RANKL is expressed highest in the peripheral lymph nodes. Mutations in the TNFSF11 gene may result in osteopetrosis. STJ96769 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of RANKL protein.

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|-------------------------|---|
| Model | STJ96769 |
| Host | Rabbit |
| Reactivity | Human, Mouse, Rat |
| Applications | ELISA, IHC, WB |
| Immunogen | Synthesized peptide derived from human RANKL. |
| Immunogen Region | 261-310 aa, C-terminal |
| Gene ID | 8600 |
| Gene Symbol | TNFSF11 |
| Dilution range | WB 1:500-1:2000 IHC-P 1:100-1:300 ELISA 1:20000 |
| Specificity | RANKL Polyclonal Antibody detects endogenous levels of RANKL protein. |

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| Tissue Specificity | Highest in the peripheral lymph nodes, weak in spleen, peripheral blood Leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid. |
| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Note | For Research Use Only (RUO). |
| Protein Name | Tumor necrosis factor ligand superfamily member 11 Osteoclast differentiation factor ODF Osteoprotegerin ligand OPGL Receptor activator of nuclear factor kappa-B ligand RANKL TNF-related activation-induced cytokin |
| Molecular Weight | 35 kDa |
| Clonality | Polyclonal |
| Conjugation | Unconjugated |
| Isotype | IgG |
| Formulation | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| Concentration | 1 mg/ml |
| Storage Instruction | Store at -20°C, and avoid repeat freeze-thaw cycles. |
| Database Links | HGNC:11926OMIM:259710 |
| Alternative Names | Tumor necrosis factor ligand superfamily member 11 Osteoclast differentiation factor ODF Osteoprotegerin ligand OPGL Receptor activator of nuclear factor kappa-B ligand RANKL TNF-related activation-induced cytokin |
| 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 . Induces osteoclastogenesis by activating multiple signaling pathways in osteoclast precursor cells, chief among which is induction of long lasting oscillations in the intracellular concentration of Ca (2+) resulting in the activation of NFATC1, which translocates to the nucleus and induces osteoclast-specific gene transcription to allow differentiation of osteoclasts. During osteoclast differentiation, in a TMEM64 and ATP2A2-dependent manner induces activation of CREB1 and mitochondrial ROS generation necessary for proper osteoclast generation . |
| Cellular Localization | Isoform 1: Cell membrane. Single-pass type II membrane protein.. Isoform 3: Cell membrane. Single-pass type II membrane protein.. Isoform 2: Cytoplasm Tumor necrosis factor ligand superfamily member 11, soluble form: Secreted |
| Post-translational Modifications | The soluble form of isoform 1 derives from the membrane form by proteolytic processing . The cleavage may be catalyzed by ADAM17. |

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