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Anti-Mouse RANK-L (RABBIT) Antibody

RANKL Antibody
Catalog # ASR5018

Specification

Anti-Mouse RANK-L (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Mouse**
Reactivity	**Mouse**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**This purified antibody has been tested in western blotting and suitable for ELISA. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 19-20 kDa in size corresponding to the mature mouse RANKL protein by western blotting in appropriate cell lysate or extract.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**This IgG fraction antibody was prepared from rabbit antiserum after repeated immunizations with recombinant truncated mouse RANKL protein (aa 143-316) produced in E.coli.**
Reconstitution Volume	**100 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**

Anti-Mouse RANK-L (RABBIT) Antibody - Additional Information

Gene ID 21943

Other Names
21943

Purity
Anti-RANK L antibody is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. This antibody is specific for mouse RANKL protein. A BLAST analysis was used to suggest cross-reactivity with RANKL from mouse sources based on 100% homology with the immunizing sequence. Based on 97% homology, cross-reactivity with rat, 91% with Chinese hamster, 90% with Thirteen-lined ground squirrel; other sources has not been determined.

Storage Condition
Store antibody at 4° C prior to restoration. For extended storage aliquot contents and freeze at

-20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Mouse RANK-L (RABBIT) Antibody - Protein Information

Name Tnfsf11

Synonyms Opgl, Rankl, Trance

Function
Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor (PubMed:22437732). 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 (By similarity). 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 (PubMed:18586671, PubMed:24039232, PubMed:27336669). During osteoclast differentiation, in a TMEM64 and ATP2A2-dependent manner induces activation of CREB1 and mitochondrial ROS generation necessary for proper osteoclast generation (PubMed:23395171, PubMed:26644563).

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type II membrane protein [Isoform 3]: Cytoplasm.

Tissue Location
Highly expressed in thymus and lymph nodes, but not in non-lymphoid tissues and is abundantly expressed in T-cells but not in B-cells. A high level expression is also seen in the trabecular bone and lung

Anti-Mouse RANK-L (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Mouse RANK-L (RABBIT) Antibody - Images

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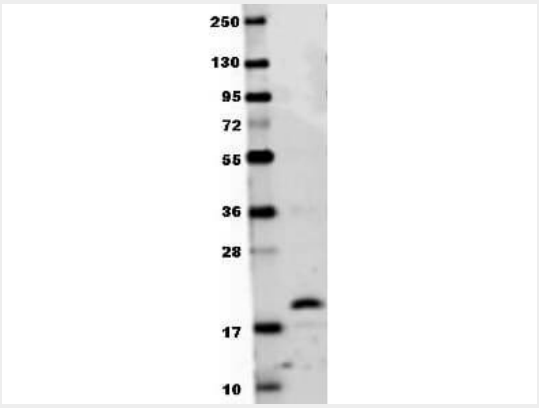

Anti-mouse RANKL antibody in western blot shows detection of recombinant mouse RANKL raised in E.coli. Recombinant truncated protein (0.1 µg, 19.9 kDa) was loaded on to an SDS-PAGE gel, and after separation, transferred to nitrocellulose. The membrane was blocked with 1% BSA in TBST for 30 min at RT, followed by incubation with Rockland's Anti-Mouse RANKL antibody diluted 1:1,000 in 1% BSA in TBST overnight at 4°C. After washes, the blot was reacted with secondary antibody Dylight™ 649 Conjugated Anti-Rabbit IgG (H&L) (Goat) Antibody (611-143-122) diluted 1:20,000 in blocking buffer (p/n MB-070) for 30 min. at RT. Data was collected using Bio-Rad VersaDoc® 4000 MP imaging system.

Anti-Mouse RANK-L (RABBIT) Antibody - Background

Anti-RANK L antibody is useful in studying the regulating NF-kB activation. Secreted cytokine RANKL (Receptor Activator of Nuclear factor kappa-B Ligand) is critically involved in osteoclastic differentiation and activation and in the regulation of specific immunity. RANKL exists as a homotrimer, is glycosylated, and occurs in 3 forms: cell-bound RANKL, which is expressed by osteoblast lineage cells, soluble RANKL (sRANKL), which is expressed by activated T lymphocytes, and a truncated ectodomain form derived from the cell-bound RANK Ligand, which is enzymatically processed by TACE (TNF-alpha converting enzyme (TACE; ADAM-17)). All three forms stimulate their specific receptor, RANK, which is located on osteoclastic and dendritic cells. RANKL binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. RANKL augments the ability of dendritic cells to stimulate naive T-cell proliferation. It 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. Expression of RANKL is highest in the peripheral lymph nodes, weak in spleen, peripheral blood leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid and is up-regulated by T-cell receptor stimulation. RANKL is secreted in the soluble form.