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sRANK Ligand Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10836

Specification

sRANK Ligand Antibody - Product Information

Application	**WB, E**
Primary Accession	O35235
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**35003**

sRANK Ligand Antibody - Additional Information

Gene ID 21943

Positive Control	**ELISA: Recombinant msRANKL**
Application & Usage	**1) WB: Use 0.1-0.2 µg/ml. The detection limit for recombinant murine sRANKL is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.** **2) ELISA: Use 0.5 - 2.0 µg/ml (100 µl/well antibody solution)** **3) Neutralization: To yield one-half maximal inhibition [ND50] of the biological activity of msRANKL (50.0 ng/ml), a concentration of 0.05 µg/ml of this antibody is required.**

Other Names
soluble Receptor Activator of NFkB Ligand, TNFSF11, TRANCE (TNF-related activation-induced cytokine), OPGL, ODF (Osteoclast differentiation factor)

Target/Specificity
sRANKL

Antibody Form
Liquid

Appearance
Liquid

Formulation
A sterile filtered antibody solution in PBS, pH 7.2.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions
sRANK Ligand Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

sRANK Ligand 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

sRANK Ligand 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

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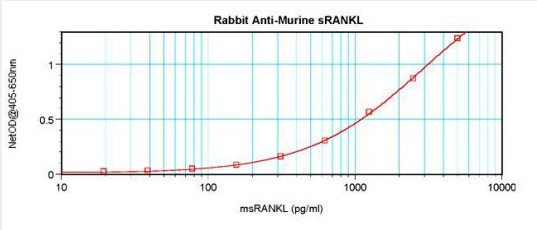
- Cell Culture

sRANK Ligand Antibody - Images



To detect msRANKL by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antibody allows the detection of at least 0.2 - 0.4 ng/well of recombinant msRANKL.

sRANK Ligand Antibody - Background

RANKL and RANK are members of the TNF superfamily of ligands and receptors that play an important role in the regulation of specific immunity and bone turnover. RANK (receptor) was originally identified as a dendritic-cell-membrane protein, which by interacting with RANKL augments the ability of dendritic cells to stimulate naïve T-cell proliferation in a mixed lymphocyte reaction, to promote the survival of RANK + T cells, and to regulate T-cell-dependent immune response. RANKL, which is expressed in a variety of cells including osteoblasts, fibroblasts, activated T-cells and bone marrow stromal cells, is also capable of interacting with a decoy receptor called OPG. Binding of soluble OPG to sRANKL inhibits osteoclastogenesis by interrupting the signaling between stromal cells and osteoclastic progenitor cells, thereby leading to excess accumulation of bone and cartilage.