



Datasheet for ABIN5510717

## RANKL ELISA Kit



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### 1 Image

#### Overview

Quantity: 96 tests

Target: RANKL (TNFSF11)

Binding Specificity: AA 141-318

Reactivity: Rat

Method Type: Sandwich ELISA

Application: ELISA

#### Product Details

Purpose: Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat TNFSF11/RANKL

Brand: PicoKine™

Analytical Method: Quantitative

Detection Method: Colorimetric

Specificity: Expression system for standard: E.coli  
Immunogen sequence: F141-D318

Cross-Reactivity (Details): There is no detectable cross-reactivity with other relevant proteins.

Characteristics: Tissue Specificity: Highly expressed in thymus and bone tissues.

#### Target Details

Target: RANKL (TNFSF11)

Alternative Name: Tnfsf11 ([TNFSF11 Products](#))

## Target Details

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Background:

Protein 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. .

Background: Receptor activator of nuclear factor kappa-B ligand (RANKL), also known as tumor necrosis factor ligand superfamily member 11 (TNFSF11), is a protein that in humans is encoded by the TNFSF11 gene. 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. The rat gene is mapped to 15q11. 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. This gene may play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.

Synonyms: 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 cytokine,TRANCE,CD254,Tumor necrosis factor ligand superfamily member 11, membrane form,Tumor necrosis factor ligand superfamily member 11, soluble form,Tnfsf11,Opgl, Rankl, Trance,

Full Gene Name: Tumor necrosis factor ligand superfamily member 11

Cellular Localisation: Cell membrane, Single-pass type II membrane protein.

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UniProt:

[Q9ESE2](#)

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Pathways:

[NF-kappaB Signaling](#)

## Application Details

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Plate:

Pre-coated

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Restrictions:

For Research Use only

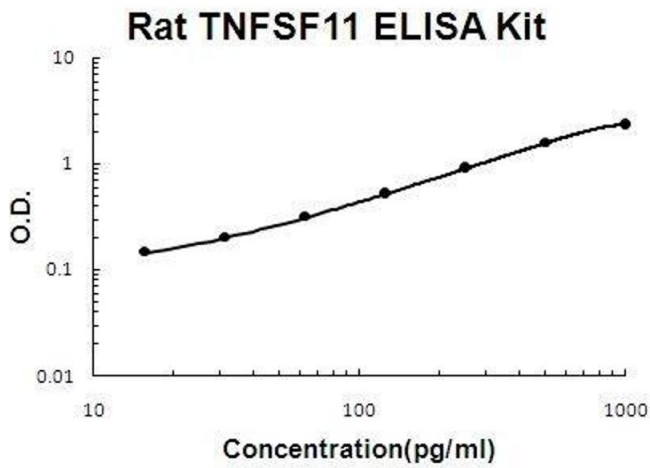
## Handling

Storage: 4 °C,-20 °C

Storage Comment: Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles(Shipped with wet ice.)

Expiry Date: 12 months

## Images



### ELISA

**Image 1.** Rat TNFSF11/RANKL PicoKine ELISA Kit standard curve