Rat TNFSF11,RANKL ELISA Kit

Catalog No: #EK5740

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Description

Product Name	Rat TNFSF11,RANKL ELISA Kit
Specificity	Rat
Crossing Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Other 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 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;
Accession No.	Q9ESE2
Uniprot	Q9ESE2
GeneID	117516;
Cell Localization	Cell membrane; Single-passtype II membrane protein.

Application Details

sensitivity:<10plg/ml

Detect Range:15.6pg/ml-1000pg/ml

sample_type:cell culture supernates cell lysates tissue homogenates serum and plasma (heparin EDTA).

capture_antibody:

detection_antibody:

gene_name:Tnfsf11

protein_name:Tumor necrosis factor ligand superfamily member 11

gene_full_name:Tumor necrosis factor ligand superfamily member 11

tissue_specificity: Highly expressed in thymus and bone tissues.

sequence_similarities:

tmb_incubation:15-20min

research_category:

Product Description

Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat TNFSF11,RANKL

Background

protein_function: Cytokine that binds to TNFRSF11B,OPG and toTNFRSF11A,RANK. Osteoclast differentiation and activation factor.Augments the ability of dendritic cells to stimulate naive T-cellproliferation. May be an important regulator of interactionsbetween T-cells and dendritic cells and may play a role in theregulation of the T-cell-dependent immune response. May also playan important role in enhanced bone-resorption in humoralhypercalcemia of malignancy. Induces osteoclastogenesis byactivating multiple signaling pathways in osteoclast precursorcells, chief among which is induction of long lasting oscillationsin the intracellular concentration of Ca (2+) resulting in theactivation of NFATC1, which translocates to the nucleus andinduces osteoclast-specific gene transcription to allowdifferentiation of osteoclasts. During osteoclast differentiation,in a TMEM64 and ATP2A2-dependent manner induces activation ofCREB1 and mitochondrial ROS generation necessary for properosteoclast generation..
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.

Note: This product is for in vitro research use only