

Anti-TNFSF11/RANKL Picoband Antibody

Catalog # ABO11633

Product Information

Application	WB, E
Primary Accession	Q9ESE2
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Tumor necrosis factor ligand superfamily member 11(TNFSF11) detection. Tested with WB, ELISA in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	117516
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
Calculated MW	35370
Application Details	ELISA , 0.1-0.5 μ g/ml, Mouse, Rat Western blot, 0.1-0.5 μ g/ml, Rat
Subcellular Localization	Cell membrane ; Single-pass type II membrane protein .
Tissue Specificity	Highly expressed in thymus and bone tissues.
Source	Eukaryota
Protein Name	Tumor necrosis factor ligand superfamily member 11
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived rat RANKL recombinant protein (Position: F141-D318). Rat RANKL shares 87.9% and 96.6% amino acid (aa) sequence identity with human and mouse RANKL, respectively.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	Tnfsf11
Synonyms	Opgl, Rankl, Trance
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 Location	Cell membrane; Single-pass type II membrane protein
Tissue Location	Highly expressed in thymus and bone tissues.

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. It is mapped to chromosome13q14.11. 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.

Images



Western blot analysis of RANKL expression in rat brain extract (lane 1). RANKL at 40KD was detected using rabbit anti- RANKL Antigen Affinity purified polyclonal antibody (Catalog # ABO11633) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

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