

Immunotag™ RANKL Polyclonal Antibody

Antibody Specification	
Catalog No.	ITT4001
Product Description	Immunotag™ RANKL Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	RANKL
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from RANKL, at AA range: 10-90
Specificity	RANKL Polyclonal Antibody detects endogenous levels of RANKL protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	TNFSF11
Accession No.	O14788 O35235 Q9ESE2
Alternate Names	TNFSF11; OPGL; RANKL; TRANCE; 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-induc

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Description	tumor necrosis factor superfamily member 11(TNFSF11) Homo sapiens 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. This protein was shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. 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.
Cell Pathway/Category	Cytokine-cytokine receptor interaction,
Protein Expression	Bone marrow,Brain,Lung,Lymph node,Peripheral blood,Thymocyte
Subcellular Localization	extracellular region,extracellular space,intracellular,cytoplasm,plasma membrane,integral component of plasma membrane,membrane,integral component of membrane,
Protein Function	disease:Defects in TNFSF11 are the cause of osteopetrosis autosomal recessive type 2 (OPTB2) [MIM:259710]; also known as osteoclast-poor osteopetrosis. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. Autosomal recessive osteopetrosis is usually associated with normal or elevated amount of non-functional osteoclasts. OPTB2 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development.,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.,induction:Up-regulated by T-cell receptor stimulation.,PTM:The soluble form of isoform 1 derives from the membrane form by proteolytic processing (By similarity). The cleavage may be catalyzed by ADAM17.,similarity:Belongs to the tumor necrosis factor family.,subunit:Homotrimer.,tissue specificity:Highest in the peripheral lymph nodes, weak in spleen, peripheral blood Leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.