

Human sRANK Ligand ELISA Kit | TNFRSF11A elisa kit

sRANK Ligand (Human) OmniKine ELISA Kit

CATALOG #
AAA315653

REACTIVITY
Human

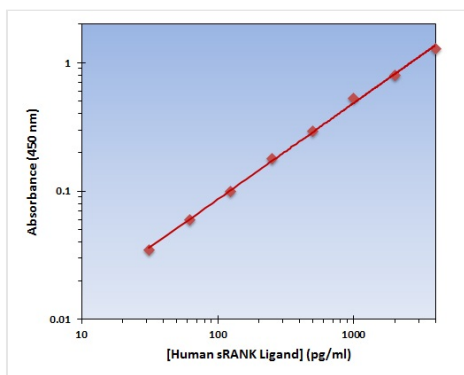
PRODUCT SYNONYMS

sRANK Ligand; sRANK Ligand (Human) OmniKine ELISA Kit; Tumor necrosis factor receptor superfamily member 11A; Osteoclast differentiation factor receptor; ODFR; Receptor activator of NF-KB; CD265; TNFRSF11A elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The OmniKine™ Human sRANK-Ligand ELISA is capable of recognizing both recombinant and naturally produced Human sRANK-Ligand proteins. The antigens listed below were tested at 50 ng/ml and exhibited less than 1% cross reactivity.
Form/Format	12 x 8-Well Microstrips
Sequence Length	263
Assay Type	Quantitative Sandwich
Sensitivity	63-4000 pg/ml
Detection Method	Colorimetric 450 nm
Subtype	None
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Human sRANK Ligand ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Human sRANK proteins within the range of 63-4000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for TNFRSF11A elisa kit	Background: Human sRANK-Ligand or Soluble Receptor Activator of NF-kappaB, also known as Tumor Necrosis Factor Ligand Superfamily Member 11, is a 317 amino acid cytokine protein encoded by the TNFSF11 gene located at locus 13q14 on chromosome 13. After initial synthesis, post-translational proteolytic processing may cleave the first 139 residues from the N-terminal, thus changing the protein from membrane form RANK to soluble form RANK. Essentially, the TNFSF11 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 responses. T-cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. In mechanism, the sRANK-ligand was shown to activate anti-apoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptorassociated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cellular apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts such that the deficient mice exhibited defects in early differentiation of T and B lymphocytes, as well as failed to form lobulo-alveolar mammary structures during pregnancy. 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. Principle of the Assay: The OmniKine™ Human sRANK Ligand ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human sRANK Ligand concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme- Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human sRANK Ligand while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	401015111
NCBI GeneID	8792
NCBI Accession #	NP_001257878.1
NCBI GenBank Nucleotide #	NM_001270949.1
UniProt Accession #	Q9Y6Q6; Q59EP9; I4EC36; I4EC38; I4EC39; I7JE63; N0GVH0
Molecular Weight	64,552 Da
NCBI Official Full Name	tumor necrosis factor receptor superfamily member 11A isoform 2
NCBI Official Synonym Full Names	TNF receptor superfamily member 11a
NCBI Official Symbol	TNFRSF11A
NCBI Official Synonym Symbols	FEO; OFE; ODFR; OSTS; PDB2; RANK; CD265; OPTB7; TRANCER; LOH18CR1
NCBI Protein Information	tumor necrosis factor receptor superfamily member 11A
UniProt Protein Name	Tumor necrosis factor receptor superfamily member 11A

UniProt Gene Name	TNFRSF11A
UniProt Synonym Gene Names	RANK; ODFR

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/tnfrsf11a-human-elisa-kits/srank-ligand/315653>