Datasheet for ABIN921105

TNFRSF11A ELISA Kit

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Overview

Quantity:	96 tests
Target:	TNFRSF11A
Binding Specificity:	AA 29-213
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human RANK
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: Q29-G213
Specificity:	Expression system for standard: NSO Immunogen sequence: Q29-G213
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<2pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	TNFRSF11A
Alternative Name:	RANK (TNFRSF11A Products)
Background:	Protein Function: Receptor for TNFSF11/RANKL/TRANCE/OPGL, essential for RANKL-mediated osteoclastogenesis. Involved in the regulation of interactions between T-cells and dendritic cells. . Background: Receptor Activator of Nuclear Factor kappa B(RANK), also known as TRANCE Receptor, is a type I membrane protein that is expressed on the surface of osteoclasts and is involved in their activation upon ligand binding. RANK is a recently described TNF receptor family member, and its ligand, RANKL, promote survival of dendritic cells and differentiation of osteoclasts. RANK contains 383 amino acids in its intracellular domain(residues 234-616), which contain three putative TRAF-binding domains(termed I, II, and III). RANK interacts with various TRAFs through distinct motifs and activates NF-kappaB via a novel TRAF6 interaction motif, which then activates NIK, thus leading to NF-kappaB activation, whereas RANK most likely activates JNK through a TRAF2-interacting region in RANK. The standard in this kit is recombinant human RANK with the sequence of Q29-G213 aa. It is a dipolymer which compose of two chains, and the molecular weight of each is 48kda. Synonyms: Tumor necrosis factor receptor superfamily member 11A,Osteoclast differentiation factor receptor,ODFR,Receptor activator of NF-KB,CD265,TNFRSF11A,RANK, Full Gene Name: Tumor necrosis factor receptor superfamily member 11A Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.
Gene ID:	8792
UniProt:	Q9Y6Q6
Pathways:	NF-kappaB Signaling

Application Details

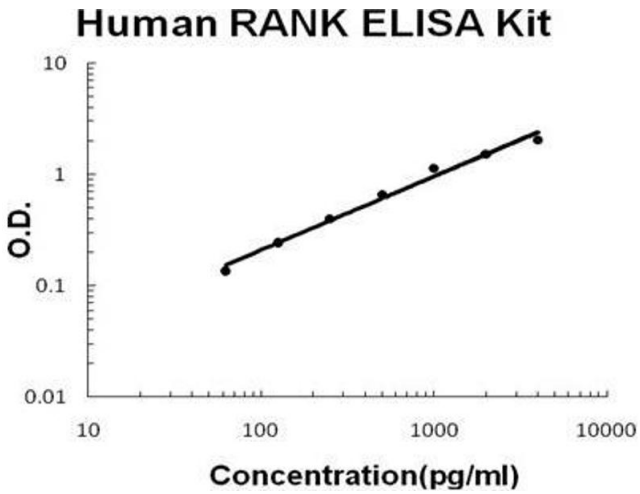
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

Application Details

	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Contains 4 TNFR-Cys repeats. Tissue Specificity: Ubiquitous expression with high levels in skeletal muscle, thymus, liver, colon, small intestine and adrenal gland.
Plate:	Pre-coated
Protocol:	human RANK ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for RANK has been precoated onto 96-well plates. Standards(NSO,Q29-G213) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for RANK is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human RANK amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human RANK standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human RANK standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 655, Standard deviation: 26.2, CV(%): 4 • Sample 2: n=16, Mean(pg/ml): 1863, Standard deviation: 68.93, CV(%): 3.7 • Sample 3: n=16, Mean(pg/ml): 2533, Standard deviation: 136.8, CV(%): 5.4, • Sample 1: n=24, Mean(pg/ml): 639, Standard deviation: 37.1, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 1957, Standard deviation: 90, CV(%): 4.6 • Sample 3: n=24, Mean(pg/ml): 2668, Standard deviation: 176.1, CV(%): 6.6
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human RANK PicoKine ELISA Kit standard curve