Datasheet for ABIN1672836

TWEAK ELISA Kit

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Overview

Quantity:	96 tests
Target:	TWEAK (TNFSF12)
Binding Specificity:	AA 94-249
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 TNFSF12
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S94-H249
Specificity:	Expression system for standard: E.coli Immunogen sequence: S94-H249
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/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:	TWEAK (TNFSF12)
Alternative Name:	TNFSF12 (TNFSF12 Products)
Background:	Protein Function: Binds to FN14 and possibly also to TNRFSF12/APO3. Weak inducer of apoptosis in some cell types. Mediates NF-kappa-B activation. Promotes angiogenesis and the proliferation of endothelial cells. Also involved in induction of inflammatory cytokines. Promotes IL8 secretion. . Background: Tumor necrosis factor ligand superfamily member 12 also known as TNF-related weak inducer of apoptosis(TWEAK) is a protein that in humans is encoded by the TNFSF12 gene. The protein encoded by this gene is a cytokine that belongs to the tumor necrosis factor(TNF) ligand family. This protein is a ligand for the FN14/TWEAKR receptor. This cytokine has overlapping signaling functions with TNF, but displays a much wider tissue distribution. This cytokine can induce apoptosis via multiple pathways of cell death in a cell type-specific manner. This cytokine is also found to promote proliferation and migration of endothelial cells, and thus acts as a regulator ofangiogenesis. The TNFSF12 gene lies 878 bp upstream of the putative transcriptional start site of the TNFSF13 gene on chromosome 17p13.1. Synonyms: Tumor necrosis factor ligand superfamily member 12,APO3 ligand,TNF-related weak inducer of apoptosis,TWEAK,Tumor necrosis factor ligand superfamily member 12, membrane form,Tumor necrosis factor ligand superfamily member 12, secreted form,TNFSF12,APO3L, DR3LG,UNQ181/PRO207, Full Gene Name: Tumor necrosis factor ligand superfamily member 12 Cellular Localisation: Cell membrane, Single-pass type II membrane protein.
Gene ID:	8742
UniProt:	O43508
Pathways:	Apoptosis

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the tumor necrosis factor family. Tissue Specificity: Highly expressed in adult heart, pancreas, skeletal muscle, brain, colon, small intestine, lung, ovary, prostate, spleen, lymph node, appendix and peripheral blood lymphocytes. Low expression in kidney, testis, liver, placenta, thymus and bone marrow. Also detected in fetal kidney, liver, lung and brain.
Plate:	Pre-coated
Protocol:	human TNFSF12 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TNFSF12 has been precoated onto 96-well plates. Standards(E.coli, S94-H249) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TNFSF12 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 TNFSF12 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 TNFSF12 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, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human TNFSF12 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 588, Standard deviation: 26.46, CV(%): 4.5 • Sample 2: n=16, Mean(pg/ml): 1202, Standard deviation: 65, CV(%): 5.4 • Sample 3: n=16, Mean(pg/ml): 2235, Standard deviation: 84.93, CV(%): 3.8, • Sample 1: n=24, Mean(pg/ml): 634, Standard deviation: 37.41, CV(%): 5.9 • Sample 2: n=24, Mean(pg/ml): 1127, Standard deviation: 72.13, CV(%): 6.4 • Sample 3: n=24, Mean(pg/ml): 2446, Standard deviation: 115, CV(%): 4.7
Restrictions:	For Research Use only

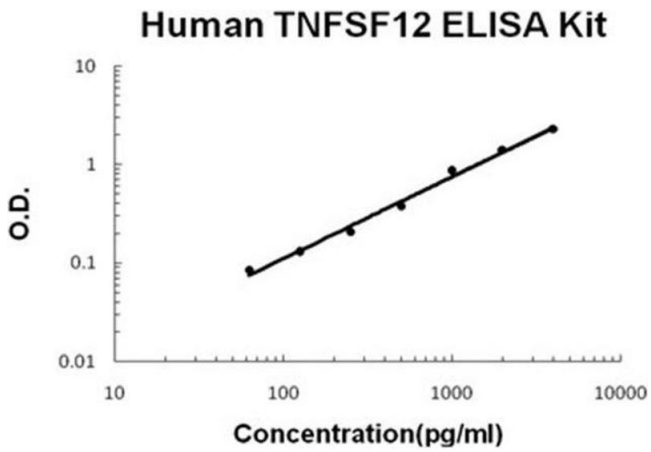
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.

Handling

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

Images



ELISA

Image 1. Human TNFSF12 PicoKine ELISA Kit standard curve