

Datasheet for ABIN1672885

CD137 ELISA Kit[Go to Product page](#)**1** Image

Overview

Quantity:	96 tests
Target:	CD137 (TNFRSF9)
Binding Specificity:	AA 24-186
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human TNFRSF9/4-1BB
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: L24-Q186
Specificity:	Expression system for standard: NSO Immunogen sequence: L24-Q186
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:	CD137 (TNFRSF9)
Alternative Name:	TNFRSF9 (TNFRSF9 Products)
Background:	<p>Protein Function: Receptor for TNFSF9/4-1BBL. Possibly active during T cell activation.</p> <p>Background: CD137 is a member of the tumor necrosis factor(TNF) receptor family. Its alternative names are tumor necrosis factor receptor superfamily member 9(TNFRSF9), 4-1BB and induced by lymphocyte activation(ILA). CD137 gene was localized to chromosome 1p36.Members of this receptor family and their structurally related ligands are important regulators of a wide variety of physiological processes and play an especially important role in the regulation of immune responses. CD137 can be expressed by activated T cells, but to a larger extent on CD8 than on CD4 T cells. The best characterized activity of CD137 is its costimulatory activity for activated T cells. Crosslinking of CD137 enhances T cell proliferation, IL-2 secretion survival and cytolytic activity. Further, it can enhance immune activity to eliminate tumors in mice.</p> <p>Synonyms: Tumor necrosis factor receptor superfamily member 9,4-1BB ligand receptor,CDw137,T-cell antigen 4-1BB homolog,T-cell antigen ILA,CD137,TNFRSF9,CD137, ILA,</p> <p>Full Gene Name: Tumor necrosis factor receptor superfamily member 9</p> <p>Cellular Localisation: Membrane, Single-pass type I membrane protein.</p>
Gene ID:	3604
UniProt:	Q07011
Pathways:	Cancer Immune Checkpoints

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: Contains 4 TNFR-Cys repeats.

Application Details

Tissue Specificity: Expressed on the surface of activated T-cells.

Plate: Pre-coated

Protocol: human TNFRSF9 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TNFRSF9 has been precoated onto 96-well plates. Standards(NSO, L24-Q186) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TNFRSF9 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 TNFRSF9 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human TNFRSF9 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 TNFRSF9 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 241, Standard deviation: 8.9, CV(%): 3.7
- Sample 2: n=16, Mean(pg/ml): 668, Standard deviation: 34, CV(%): 5.1
- Sample 3: n=16, Mean(pg/ml): 1134, Standard deviation: 48.8, CV(%): 4.3,
- Sample 1: n=24, Mean(pg/ml): 224, Standard deviation: 11, CV(%): 4.9
- Sample 2: n=24, Mean(pg/ml): 735, Standard deviation: 45.57, CV(%): 6.2
- Sample 3: n=24, Mean(pg/ml): 1268, Standard deviation: 69.8, CV(%): 5.5

Restrictions: For Research Use only

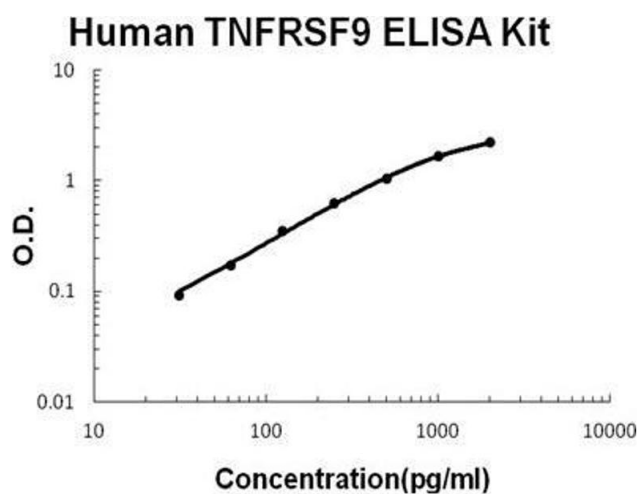
Handling

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 TNFRSF9/4-1BB PicoKine ELISA Kit standard curve