

Datasheet for ABIN2859266
CD47 ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	CD47
Binding Specificity:	AA 19-139
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	125-8000 pg/mL
Minimum Detection Limit:	125 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD47
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: Q19-P139
Specificity:	Expression system for standard: NSO Immunogen sequence: Q19 - P139
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:	CD47
Alternative Name:	CD47 (CD47 Products)
Background:	<p>Protein Function: Has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins. Plays an important role in memory formation and synaptic plasticity in the hippocampus (By similarity). Receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation. May play a role in membrane transport and/or integrin dependent signal transduction. May prevent premature elimination of red blood cells. May be involved in membrane permeability changes induced following virus infection. .</p> <p>Background: CD47 (Cluster of Differentiation 47), also known as integrin associated protein (IAP), is a transmembrane protein that in humans is encoded by the CD47 gene. It belongs to the immunoglobulin superfamily and partners with membrane integrins and also binds the ligands thrombospondin-1 (TSP-1) and signal-regulatory protein alpha (SIRPα). CD47 is involved in a range of cellular processes, including apoptosis, proliferation, adhesion, and migration. Furthermore, it plays a key role in immune and angiogenic responses. Also CD47 is ubiquitously expressed in human cells and has found to be overexpressed in many different tumor cells.</p> <p>Synonyms: Leukocyte surface antigen CD47,Antigenic surface determinant protein OA3,Integrin-associated protein,IAP,Protein MER6,CD47,CD47,MER6,</p> <p>Full Gene Name: Leukocyte surface antigen CD47</p> <p>Cellular Localisation: Cell membrane, Multi-pass membrane protein.</p>
Gene ID:	961
UniProt:	Q08722

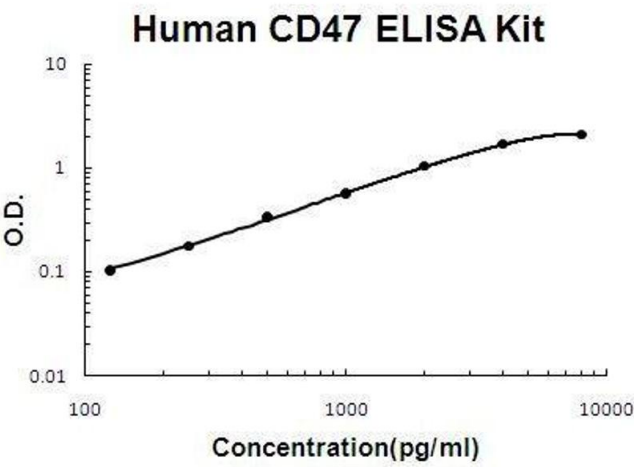
Application Details

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 1 Ig-like V-type (immunoglobulin-like) domain. Tissue Specificity: Very broadly distributed on normal adult tissues, as well as ovarian tumors, being especially abundant in some epithelia and the brain.
Plate:	Pre-coated
Protocol:	human CD47 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD47 has been precoated onto 96-well plates. Standards (NS0, Q19 - P139) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD47 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 CD47 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 8000pg/mL, 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL human CD47 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 CD47 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 347, Standard deviation: 17, CV(%): 4.9• Sample 2: n=16, Mean(pg/ml): 1200, Standard deviation: 66, CV(%): 5.5• Sample 3: n=16, Mean(pg/ml): 5260, Standard deviation: 326.12, CV(%): 6.2• Sample 1: n=24, Mean(pg/ml): 450, Standard deviation: 28.8, CV(%): 6.4• Sample 2: n=24, Mean(pg/ml): 1823, Standard deviation: 123.96, CV(%): 6.8• Sample 3: n=24, Mean(pg/ml): 5896, Standard deviation: 442.2, CV(%): 7.5
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 CD47 PicoKine ELISA Kit standard curve