Datasheet for ABIN1889313

CD36 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CD36
Binding Specificity:	AA 30-439
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD36/SR-B3
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: G30-N439
Specificity:	Expression system for standard: sf21 Immunogen sequence: G30-N439
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:	CD36
Alternative Name:	CD36 (CD36 Products)
Background:	Protein Function: Binds to collagen, thrombospondin, anionic phospholipids and oxidized low-density lipoprotein (oxLDL). May function as a cell adhesion molecule. Directly mediates cytoadherence of Plasmodium falciparum parasitized erythrocytes. Binds long chain fatty acids and may function in the transport and/or as a regulator of fatty acid transport. Receptor for thombospondins, THBS1 AND THBS2, mediating their antiangiogenic effects. As a coreceptor for TLR4-TLR6 heterodimer, promotes inflammation in monocytes/macrophages. Upon ligand binding, such as oxLDL or amyloid-beta 42, rapidly induces the formation of a heterodimer of TLR4 and TLR6, which is internalized and triggers inflammatory response, leading to NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion. . Background: CD36(Cluster of Differentiation 36) is an integral membrane protein found on the surface of many cell types in vertebrate animals and is also known as FAT, SCARB3, GP88, glycoprotein IV(gpIV) and glycoprotein IIIb(gpIIIb). The human CD36 is a member of a gene family of structurally related glycoproteins and functions as a receptor for collagen type I and thrombospondin. The use of a CD36 genomic probe has allowed the localization of the CD36 locus to the 7q11.2 band by fluorescence in situ hybridization coupled with GTG-banding. CED-1/SCARF1 and C03F11.3/CD36 are beta-glucan binding receptors and define an evolutionarily conserved pathway for the innate sensing of fungal pathogens. Synonyms: Platelet glycoprotein 4,Fatty acid translocase,FAT,Glycoprotein IIIb,GPIIIB,Leukocyte differentiation antigen CD36,PAS IV,PAS-4,Platelet collagen receptor,Platelet glycoprotein IV,GPIV,Thrombospondin receptor,CD36,CD36,GP3B, GP4, Full Gene Name: Platelet glycoprotein 4 Cellular Localisation: Cell membrane, Multi-pass membrane protein. Upon ligand-binding, internalized through dynamin-dependent endocytosis..
Gene ID:	948

Target Details

UniProt:	P16671
Pathways:	TLR Signaling, Peptide Hormone Metabolism, Response to Growth Hormone Stimulus, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Regulation of Lipid Metabolism by PPARalpha, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Hepatitis C, Toll-Like Receptors Cascades, Lipid Metabolism, S100 Proteins

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 CD36 family.
Plate:	Pre-coated
Protocol:	human CD36 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD36 has been precoated onto 96-well plates. Standards(sf21, G30-N439) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD36 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 CD36 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human CD36 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 CD36 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.26, Standard deviation: 0.049, CV(%): 3.9 • Sample 2: n=16, Mean(ng/ml): 4.31, Standard deviation: 0.310, CV(%): 7.2 • Sample 3: n=16, Mean(ng/ml): 6.28, Standard deviation: 0.427, CV(%): 6.8, • Sample 1: n=24, Mean(ng/ml): 1.33, Standard deviation: 0.061, CV(%): 4.6 • Sample 2: n=24, Mean(ng/ml): 4.56, Standard deviation: 0.374, CV(%): 8.2 • Sample 3: n=24, Mean(ng/ml): 7.24, Standard deviation: 0.565, CV(%): 7.8

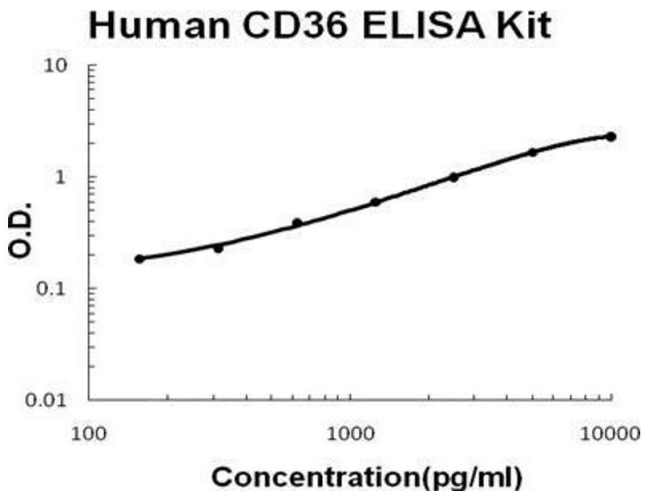
Application Details

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

Images



ELISA

Image 1. Human CD36/SR-B3 PicoKine ELISA Kit standard curve