Datasheet for ABIN1672772

CD14 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CD14
Binding Specificity:	AA 18-345
Reactivity:	Mouse
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 Mouse CD14
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: A18-P345
Specificity:	Expression system for standard: NSO Immunogen sequence: A18-P345
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:	CD14
Alternative Name:	CD14 (CD14 Products)
Background:	Protein Function: In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the MD-2/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Up-regulates cell surface molecules, including adhesion molecules (By similarity). . Background: CD14, Cluster of differentiation 14, ingle-copy gene encoding 2 protein forms: a 50- to 55-kD glycosylphosphatidylinositol-anchored membrane protein(mCD14) and a monocyte or liver-derived soluble serum protein(sCD14) that lacks the anchor. By in situ hybridization and study of somatic cell hybrid DNA that the gene is located at bands 5q23-q31. CD14 acts as a co-receptor(along with the Toll-like receptor TLR 4 and MD-2) for the detection of bacterial lipopolysaccharide(LPS). CD14 can bind LPS only in the presence of lipopolysaccharide-binding protein(LBP). Although LPS is considered its main ligand, CD14 also recognizes other pathogen-associated molecular patterns. Synonyms: Monocyte differentiation antigen CD14,Myeloid cell-specific leucine-rich glycoprotein,CD14,Cd14, Full Gene Name: Monocyte differentiation antigen CD14 Cellular Localisation: Cell membrane, Lipid-anchor, GPI-anchor.
Gene ID:	12475
UniProt:	P10810
Pathways:	TLR Signaling, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Toll-Like Receptors Cascades

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.
Plate:	Pre-coated
Protocol:	mouse CD14 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for CD14 has been precoated onto 96-well plates. Standards(NSO, A18-P345) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD14 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 mouse CD14 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 mouse CD14 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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse CD14 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 0.98, Standard deviation: 0.038, CV(%): 3.9 • Sample 2: n=16, Mean(ng/ml): 3.11, Standard deviation: 0.162, CV(%): 5.2 • Sample 3: n=16, Mean(ng/ml): 6.23, Standard deviation: 0.355, CV(%): 5.7, • Sample 1: n=24, Mean(ng/ml): 1.03, Standard deviation: 0.081, CV(%): 7.9 • Sample 2: n=24, Mean(ng/ml): 3.47, Standard deviation: 0.249, CV(%): 7.2 • Sample 3: n=24, Mean(ng/ml): 6.72, Standard deviation: 0.423, CV(%): 6.3
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

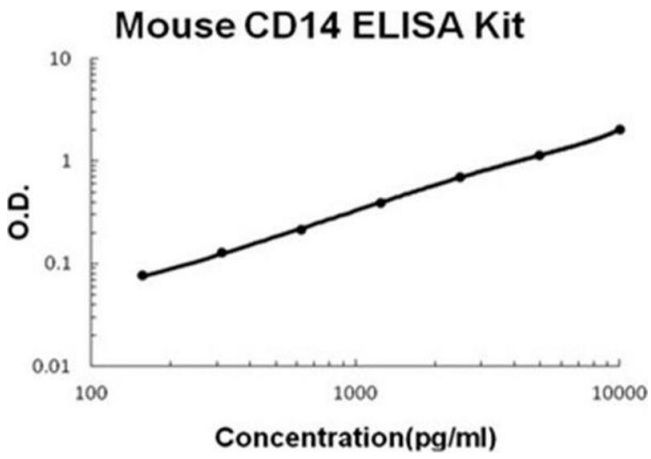
Publications

Product cited in:	Du, Chen, Wang, Wen, Wang, Wang, Kan, Wei, Zhao: "VEGF-D-induced draining lymphatic

Publications

enlargement and tumor lymphangiogenesis promote lymph node metastasis in a xenograft model of ovarian carcinoma." in: **Reproductive biology and endocrinology : RB&E**, Vol. 12, pp. 14, (2014) (PubMed).

Images



ELISA

Image 1. Mouse CD14 PicoKine ELISA Kit standard curve