Datasheet for ABIN921092

CD80 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CD80
Binding Specificity:	AA 37-245
Reactivity:	Mouse
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 Mouse B7-1/CD80
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: D37-K245
Specificity:	Expression system for standard: NSO Immunogen sequence: D37-K245
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:	CD80
Alternative Name:	CD80 (CD80 Products)
Background:	Protein Function: Involved in the costimulatory signal essential for T lymphocytes activation. T-cell proliferation and cytokine production is induced by the binding of CD28 or CTLA-4 to this receptor. Background: The protein CD80(Cluster of Differentiation 80) is a molecule found on activated B cells and monocytes which provides a costimulatory signal necessary for T cell activation and survival. It is also known as B7.1. The cDNA for B7-1 predicts a type I membrane protein, i.e., one synthesized with a signal peptide that is cleaved upon translocation across the endoplasmic membrane. The protein is predicted to contain 2 extracellular domains structurally similar to those of Ig, a hydrophobic transmembrane region, and a short cytoplasmic domain. The CD80 and CD86(601020) genes encode B7-1 and B7-2, respectively, which are structurally similar members of the immunoglobulin superfamily expressed on a variety of hematopoietic cell types. stated that B7-1 and B7-2 provide a costimulatory signal to T cells by interacting with CD28 and CTLA4. The standard product used in this kit is recombinant B7-1, D37-K245, which is composed of two single chains acids with the dipolymer. Synonyms: T-lymphocyte activation antigen CD80,Activation B7-1 antigen,B7,CD80,Cd80,B7, Full Gene Name: T-lymphocyte activation antigen CD80 Cellular Localisation: Membrane, Single-pass type I membrane protein.
Gene ID:	12519
UniProt:	Q00609
Pathways:	TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Positive Regulation of Immune Effector Process, 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 1 Ig-like C2-type (immunoglobulin-like) domain. Tissue Specificity: Expressed on activated B-cells, gamma interferon stimulated monocytes and non-circulating B-cell malignancies.
Plate:	Pre-coated
Protocol:	mouse CD80 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for CD80 has been precoated onto 96-well plates. Standards(NSO, D37-K245) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD80 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 CD80 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 mouse CD80 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 or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse CD80 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 0.28, Standard deviation: 0.015, CV(%): 5.2 • Sample 2: n=16, Mean(ng/ml): 1.56, Standard deviation: 0.111, CV(%): 7.1 • Sample 3: n=16, Mean(ng/ml): 2.31, Standard deviation: 0.113, CV(%): 4.9, • Sample 1: n=24, Mean(ng/ml): 0.25, Standard deviation: 0.016, CV(%): 6.2 • Sample 2: n=24, Mean(ng/ml): 1.72, Standard deviation: 0.138, CV(%): 8.0 • Sample 3: n=24, Mean(ng/ml): 2.48, Standard deviation: 0.134, CV(%): 5.4
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

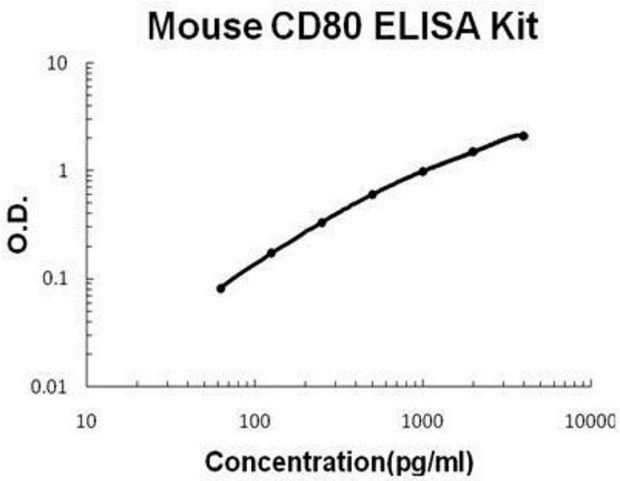
Handling

Expiry Date:	12 months

Publications

Product cited in:	Esfahani, Saidijam, Najafi, Goodarzi, Movahedian: "The effect of salusin-β on expression of pro- and anti-inflammatory cytokines in human umbilical vein endothelial cells (HUVECs)." in: **ARYA atherosclerosis**, Vol. 14, Issue 1, pp. 1-10, (2018) (PubMed). McCarthy: "Management. The name game." in: **Nursing times**, Vol. 85, Issue 1, pp. 44-5, (1989) (PubMed).

Images



ELISA

Image 1. Mouse B7-1/CD80 PicoKine ELISA Kit standard curve