

Datasheet for ABIN1672863

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

Overview

Quantity:	96 tests
Target:	PD-1 (PDCD1)
Binding Specificity:	AA 25-167
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 PD-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: L25-Q167
Specificity:	Expression system for standard: NSO Immunogen sequence: L25-Q167
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:	PD-1 (PDCD1)
Alternative Name:	PDCD1 (PDCD1 Products)
Background:	<p>Protein Function: Inhibitory cell surface receptor involved in the regulation of T-cell function during immunity and tolerance. Upon ligand binding, inhibits T-cell effector functions in an antigen- specific manner. Possible cell death inducer, in association with other factors. .</p> <p>Background: Programmed cell death protein 1, also called PD-1 or PDCD1 is a protein that in humans is encoded by the PDCD1 gene. This gene encodes a cell surface membrane protein of the immunoglobulin superfamily. By fluorescence in situ hybridization, the PDCD1 gene is mapped to 2q37.3. This protein is expressed in pro-B-cells and is thought to play a role in their differentiation. In mice, expression of this gene is induced in the thymus when anti-CD3 antibodies are injected and large numbers of thymocytes undergo apoptosis. Mice deficient for this gene bred on a BALB/c background developed dilated cardiomyopathy and died from congestive heart failure. These studies suggest that this gene product may also be important in T cell function and contribute to the prevention of autoimmune diseases.</p> <p>Synonyms: Programmed cell death protein 1,Protein PD-1,hPD-1,CD279,PDCD1,PD1,</p> <p>Full Gene Name: Programmed cell death protein 1</p> <p>Cellular Localisation: Membrane, Single-pass type I membrane protein.</p>
Gene ID:	5133
UniProt:	Q15116
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.
Plate:	Pre-coated

Application Details

Protocol: human PD-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for PD-1 has been precoated onto 96-well plates. Standards(NSO, L25-Q167) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for PD-1 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 PD-1 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 PD-1 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 to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human PD-1 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 1482, Standard deviation: 77.1, CV(%): 5.2
- Sample 2: n=16, Mean(pg/ml): 2838, Standard deviation: 178.8, CV(%): 6.3
- Sample 3: n=16, Mean(pg/ml): 5430, Standard deviation: 347.52, CV(%): 6.4,
- Sample 1: n=24, Mean(pg/ml): 1326, Standard deviation: 87.52, CV(%): 6.6
- Sample 2: n=24, Mean(pg/ml): 3263, Standard deviation: 238.2, CV(%): 7.3
- Sample 3: n=24, Mean(pg/ml): 6102, Standard deviation: 470, CV(%): 7.7

Restrictions: For Research Use only

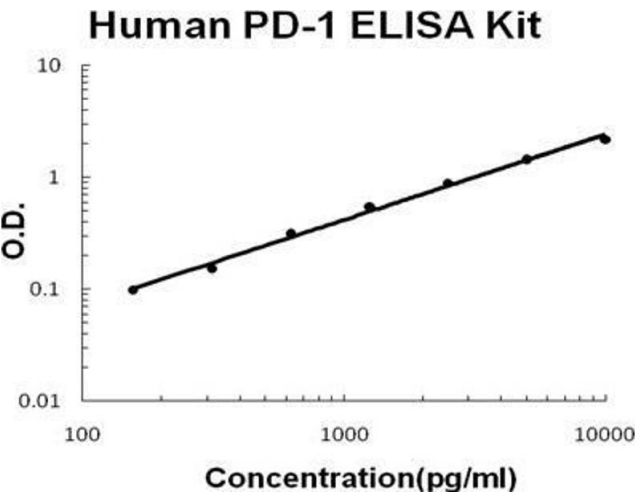
Handling

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 PD-1 PicoKine ELISA Kit standard curve