

Datasheet for ABIN921089  
**CD40 ELISA Kit**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	96 tests
Target:	CD40
Binding Specificity:	AA 21-193
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

## Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD40
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Saliva, Urine, Milk
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: E21-R193
Specificity:	Expression system for standard: NSO Immunogen sequence: E21-R193
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

## Product Details

Sensitivity:	<1pg/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:	CD40
Alternative Name:	CD40 ( <a href="#">CD40 Products</a> )
Background:	<p>Protein Function: Receptor for TNFSF5/CD40LG. Transduces TRAF6- and MAP3K8-mediated signals that activate ERK in macrophages and B cells, leading to induction of immunoglobulin secretion.</p> <p>Background: CD40 is a cell surface receptor that is expressed on the surface of all mature B cells, most mature B-cell malignancies, and some early B-cell acute lymphocytic leukemias, but is not expressed on plasma cells. The CD40 gene is localized to the long arm of chromosome 20, bands q12-q13.2. The protein encoded by this gene is a member of the TNF-receptor superfamily. This receptor has been found to be essential in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation.</p> <p>Synonyms: Tumor necrosis factor receptor superfamily member 5,B-cell surface antigen CD40,Bp50,CD40L receptor,CDw40,CD40,CD40,TNFRSF5,</p> <p>Full Gene Name: Tumor necrosis factor receptor superfamily member 5</p> <p>Cellular Localisation: Isoform I: Cell membrane, Single-pass type I membrane protein.</p>
Gene ID:	958
UniProt:	<a href="#">P25942</a>
Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">Cellular Response to Molecule of Bacterial Origin</a> , <a href="#">M Phase</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">Cancer Immune Checkpoints</a>

## Application Details

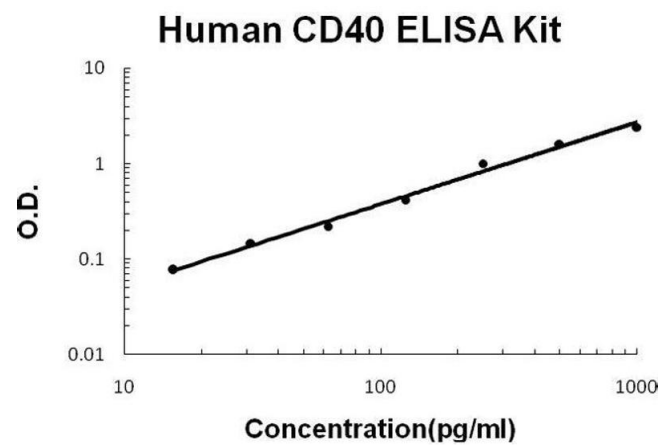
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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## Application Details

Comment:	Sequence similarities: Contains 4 TNFR-Cys repeats. Tissue Specificity: B-cells and in primary carcinomas.
Plate:	Pre-coated
Protocol:	human CD40 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD40 has been precoated onto 96-well plates. Standards(NSO, E21-R193) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD40 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 CD40 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human CD40 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, plasma( heparin, EDTA), saliva, urine or human milk to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human CD40 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 93, Standard deviation: 4.8, CV(%): 5.2</li><li>• Sample 2: n=16, Mean(pg/ml): 325, Standard deviation: 19.2, CV(%): 5.9</li><li>• Sample 3: n=16, Mean(pg/ml): 538, Standard deviation: 28.5, CV(%): 5.3,</li><li>• Sample 1: n=24, Mean(pg/ml): 101, Standard deviation: 6.9, CV(%): 6.8</li><li>• Sample 2: n=24, Mean(pg/ml): 357, Standard deviation: 26.4, CV(%): 7.4</li><li>• Sample 3: n=24, Mean(pg/ml): 529, Standard deviation: 32.8, CV(%): 6.2</li></ul>
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 CD40/TNFRSF5 PicoKine ELISA Kit standard curve