Datasheet for ABIN1112575

CD40 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CD40
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:	For quantitative detection of CD40 in Human serum, body fluids, tissue lysates or cell culture supernatants.
Sample Type:	Cell Culture Supernatant, Plasma, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 1 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human CD40 antibody 2. Lyophilized Human CD40 standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Human CD40 antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	CD40
Alternative Name:	CD40 / TNFRSF5 (CD40 Products)
Background:	CD40 is a costimulatory protein found on antigen presenting cells and is required for their activation. It is expressed on the surface of all mature B cells. This protein receptor is a member of the TNF-receptor superfamily. It 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. The interaction of this receptor and its ligand is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis.
Pathways:	NF-kappaB Signaling, Cellular Response to Molecule of Bacterial Origin, M Phase, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Cancer Immune Checkpoints

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-CD40 polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-CD40 polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the CD40 amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of CD40 can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working

Application Details

	solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.
Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Cell culture supernatants: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . For cell lysate, add lysis solution before centrifugation. Tissue lysate or body fluids: Centrifuge at approximately 2000 × g for 20 min to remove precipitate. Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 2000 × g for 20 min. Analyze the serum immediately or aliquot and store at -20 °C . Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN3 can not be used as test sample preservative, since it is the inhibitor for HRP.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)