Datasheet for ABIN1672754

CCL21 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CCL21
Binding Specificity:	AA 24-134
Reactivity:	Human
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 Human CCL21/6Ckine
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S24-P134
Specificity:	Expression system for standard: E.coli Immunogen sequence: S24-P134
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<12pg/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:	CCL21
Alternative Name:	CCL21 (CCL21 Products)
Background:	Protein Function: Inhibits hemopoiesis and stimulates chemotaxis. Chemotactic in vitro for thymocytes and activated T-cells, but not for B-cells, macrophages, or neutrophils. Shows preferential activity towards naive T-cells. May play a role in mediating homing of lymphocytes to secondary lymphoid organs. Binds to atypical chemokine receptor ACKR4 and mediates the recruitment of beta-arrestin (ARRB1/2) to ACKR4. Background: Chemokine(C-C motif) ligand 21(CCL21) is a small cytokine belonging to the CC chemokine family. This chemokine is also known as 6Ckine(because it has six conserved cysteine residues instead of the four cysteines typical to chemokines), exodus-2, and secondary lymphoid-tissue chemokine(SLC). By somatic cell hybrid and radiation hybrid analyses, mapped the SCYA21 gene to 9p13. Chemokines are a family of proteins that direct leukocyte migration and activation to inflammatory stimuli. CXC chemokine ligand 13(CXCL13), CC chemokine ligand 21(CCL21), and CCL19 are constitutively expressed in secondary lymphoid organs, where they control the placement of lymphocytes and dendritic cells. It was demonstrate that the local expression of homeostatic chemokines in nonlymphoid organs, such as the lung, plays an important role in protective immune responses. Synonyms: C-C motif chemokine 21,6Ckine,Beta-chemokine exodus-2,Secondary lymphoid-tissue chemokine,SLC,Small-inducible cytokine A21,CCL21,SCYA21,UNQ784/PRO1600, Full Gene Name: C-C motif chemokine 21 Cellular Localisation: Secreted.
Gene ID:	6366
UniProt:	O00585
Pathways:	Regulation of Actin Filament Polymerization

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: Belongs to the intercrine beta (chemokine CC) family. Tissue Specificity: Highly expressed in high endothelial venules of lymph nodes, spleen and appendix. Intermediate levels found in small intestine, thyroid gland and trachea. Low level expression in thymus, bone marrow, liver, and pancreas. Also found in tonsil, fetal heart and fetal spleen.
Plate:	Pre-coated
Protocol:	human CCL21 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CCL21 has been precoated onto 96-well plates. Standards(E.coli, S24-P134) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CCL21 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 CCL21 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 human CCL21 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 or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human CCL21 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 425, Standard deviation: 20.83, CV(%): 4.9 • Sample 2: n=16, Mean(pg/ml): 1121, Standard deviation: 43.72, CV(%): 3.9 • Sample 3: n=16, Mean(pg/ml): 2397, Standard deviation: 110.3, CV(%): 4.6, • Sample 1: n=24, Mean(pg/ml): 436, Standard deviation: 32.26, CV(%): 7.4 • Sample 2: n=24, Mean(pg/ml): 1247, Standard deviation: 77.31, CV(%): 6.2 • Sample 3: n=24, Mean(pg/ml): 2438, Standard deviation: 163.4, CV(%): 6.7
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.

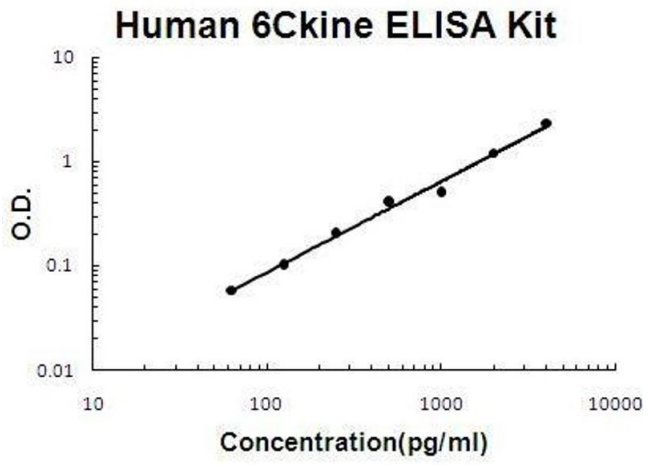
Handling

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:	Xu, Feng, Wang, Zhu, Lin, Lou, Xiang, He, Zheng, Tang, Zuo: "Phytoestrogen calycosin-7-O-?-D-glucopyranoside ameliorates advanced glycation end products-induced HUVEC damage." in: **Journal of cellular biochemistry**, Vol. 112, Issue 10, pp. 2953-65, (2011) (PubMed).

Images



ELISA

Image 1. Human CCL21/6Ckine PicoKine ELISA Kit standard curve