Datasheet for ABIN1706066

CCL13 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CCL13
Binding Specificity:	AA 24-98
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	7.8-500 pg/mL
Minimum Detection Limit:	7.8 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CCL13/MCP4
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: Q24-T98
Specificity:	Expression system for standard: E.coli Immunogen sequence: Q24-T98
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:	CCL13
Alternative Name:	CCL13 (CCL13 Products)
Background:	Protein Function: Chemotactic factor that attracts monocytes, lymphocytes, basophils and eosinophils, but not neutrophils. Signals through CCR2B and CCR3 receptors. Plays a role in the accumulation of leukocytes at both sides of allergic and non-allergic inflammation. May be involved in the recruitment of monocytes into the arterial wall during the disease process of atherosclerosis. May play a role in the monocyte attraction in tissues chronically exposed to exogenous pathogens. Background: Chemokine(C-C motif) ligand 13(CCL13) is a small cytokine belonging to the CC chemokine family. Its gene is located on human chromosome 17 within a large cluster of other CC chemokines. CCL13 induces chemotaxis in monocytes, eosinophils, T lymphocytes, and basophils by binding cell surface G-protein linked chemokine receptors such as CCR2, CCR3 and CCR5. Activity of this chemokine has been implicated in allergic reactions such as asthma. CCL13 can be induced by the inflammatory cytokines interleukin-1 and TNF-alpha. Synonyms: C-C motif chemokine 13,CK-beta-10,Monocyte chemoattractant protein 4,Monocyte chemotactic protein 4,MCP-4,NCC-1,Small-inducible cytokine A13,C-C motif chemokine 13, long chain,C-C motif chemokine 13, medium chain,C-C motif chemokine 13, short chain,CCL13,MCP4, NCC1, SCYA13, Full Gene Name: C-C motif chemokine 13 Cellular Localisation: Secreted.
Gene ID:	6357
UniProt:	Q99616
Pathways:	Regulation of Systemic Arterial Blood Pressure by Hormones, The Global Phosphorylation Landscape of SARS-CoV-2 Infection

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: Widely expressed. Found in small intestine, thymus, colon, lung, trachea, stomach and lymph node. Low levels seen in the pulmonary artery smooth muscle cells.
Plate:	Pre-coated
Protocol:	human CCL13 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CCL13 has been precoated onto 96-well plates. Standards(E.coli, Q24-T98) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CCL13 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 CCL13 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL, 7.8pg/mL human CCL13 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. We recommend that each human CCL13 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 50, Standard deviation: 2.15, CV(%): 4.3 • Sample 2: n=16, Mean(pg/ml): 191, Standard deviation: 8.98, CV(%): 4.7 • Sample 3: n=16, Mean(pg/ml): 325, Standard deviation: 20.15, CV(%): 6.2, • Sample 1: n=24, Mean(pg/ml): 54, Standard deviation: 3.13, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 223, Standard deviation: 14.05, CV(%): 6.3 • Sample 3: n=24, Mean(pg/ml): 356, Standard deviation: 27.77, CV(%): 7.8
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

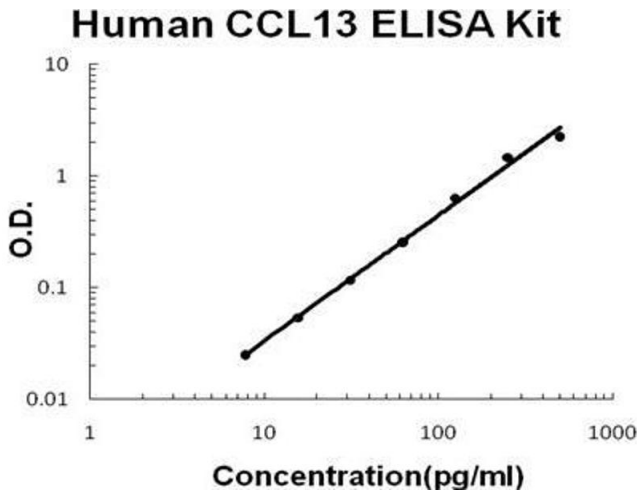
Handling

Expiry Date:	12 months

Publications

Product cited in:	Garcia-Zepeda, Combadiere, Rothenberg, Sarafi, Lavigne, Hamid, Murphy, Luster et al.: "Human monocyte chemoattractant protein (MCP)-4 is a novel CC chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through ..." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 157, Issue 12, pp. 5613-26, (1997) (PubMed).

Images



ELISA

Image 1. Human CCL13/MCP4 PicoKine ELISA Kit standard curve