Datasheet for ABIN1889300

CCL20 ELISA Kit

1 Image | 1 Publication

Go to Product page

Overview

Quantity:	96 tests
Target:	CCL20
Binding Specificity:	AA 28-97
Reactivity:	Mouse
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 Mouse MIP-3 alpha/CCL20
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: A28-M97
Specificity:	Expression system for standard: E.coli Immunogen sequence: A28-M97
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:	CCL20
Alternative Name:	CCL20 (CCL20 Products)
Background:	Protein Function: Chemotactic factor that attracts lymphocytes and, slightly, neutrophils, but not monocytes. May be involved in formation and function of the mucosal lymphoid tissues by attracting lymphocytes and dendritic cells towards epithelial cells. . Background: Macrophage Inflammatory Protein 3alpha(MIP3alpha), also called Chemokine, cc motif, ligand 20(CCL20). The MIP-3alpha/CCL20 gene was cloned and sequenced, revealing a four exon, three intron structure, and was localized by FISH analysis to 2q35-q36. MIP3alpha is predominantly expressed in lymph nodes, appendix, PBL, fetal liver, fetal lung and several cell lines. MIP3alpha/CCL20 and its receptor CCR6 are markedly up-regulated in psoriasis, and they may play a role in the recruitment of T cells to lesional psoriatic skin. And Alanine MIP-3alpha and Serine MIP-3alpha, the two forms of MIP3alpha, that differ by one amino acid at the predicted signal peptide cleavage site. Both of them were chemically synthesized and tested for biological activity. And both flu antigen plus IL-2-activated CD4(+) and CD8(+) T lymphoblasts and cord blood-derived dendritic cells responded to Ser and Ala MIP-3alpha. Synonyms: C-C motif chemokine 20,Beta-chemokine exodus-1,CC chemokine LARC,CC chemokine ST38,Liver and activation-regulated chemokine,Macrophage inflammatory protein 3 alpha,MIP-3-alpha,Small-inducible cytokine A20,Ccl20,Larc, Scya20, Full Gene Name: C-C motif chemokine 20 Cellular Localisation: Secreted.
Gene ID:	20297
UniProt:	O89093
Pathways:	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

Application Details

	assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Prominently expressed in the small intestine, colon and appendix. Also found in thymus, spleen, lymph node and lung. The long form might be dominant in intestinal, and the short form in lymphoid tissues.
Plate:	Pre-coated
Protocol:	mouse CCL20 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for CCL20 has been precoated onto 96-well plates. Standards(E.coli, A28-M97) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CCL20 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 mouse CCL20 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 mouse CCL20 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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each mouse CCL20 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 59, Standard deviation: 3.66, CV(%): 6.2 • Sample 2: n=16, Mean(pg/ml): 176, Standard deviation: 7.57, CV(%): 4.3 • Sample 3: n=16, Mean(pg/ml): 283, Standard deviation: 15.57, CV(%): 5.5, • Sample 1: n=24, Mean(pg/ml): 72, Standard deviation: 5.26, CV(%): 7.3 • Sample 2: n=24, Mean(pg/ml): 193, Standard deviation: 11.4, CV(%): 5.9 • Sample 3: n=24, Mean(pg/ml): 317, Standard deviation: 20.3, CV(%): 6.4
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

Publications

Product cited in:

Zhang, Shi, Zou, Chen, Tang, Ye, Liu: "High glucose stimulates cell proliferation and Collagen IV production in rat mesangial cells through inhibiting AMPK-KATP signaling." in: **International urology and nephrology**, Vol. 49, Issue 11, pp. 2079-2086, (2018) (PubMed).

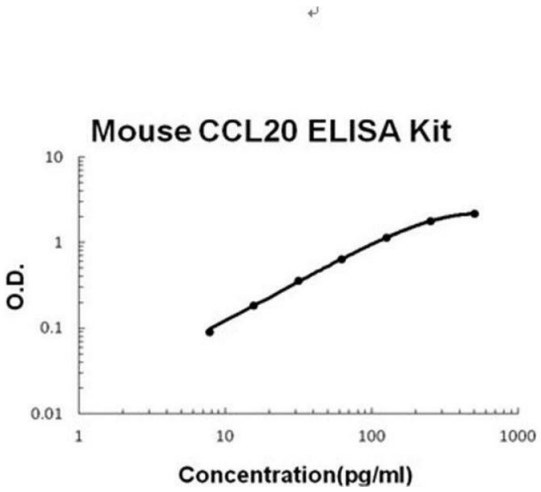
Gishto, Farrell, Kothapalli: "Tuning composition and architecture of biomimetic scaffolds for enhanced matrix synthesis by murine cardiomyocytes." in: **Journal of biomedical materials research. Part A**, Vol. 103, Issue 2, pp. 693-708, (2015) (PubMed).

Cavdar, Ozbal, Celik, Ergur, Guneli, Ural, Camsari, Guner: "The effects of alpha-lipoic acid on MMP-2 and MMP-9 activities in a rat renal ischemia and re-perfusion model." in: **Biotechnic & histochemistry : official publication of the Biological Stain Commission**, Vol. 89, Issue 4, pp. 304-14, (2014) (PubMed).

Xu, Ling, Zhu, Fan, Zhang: "The effect of 2,3,4',5-tetrahydroxystilbene-2-0-?-D glucoside on neointima formation in a rat artery balloon injury model and its possible mechanisms." in: **European journal of pharmacology**, Vol. 698, Issue 1-3, pp. 370-8, (2013) (PubMed).

Kim, Lee, Choi, Yoo, Yang: "Implication of MMP-9 and urokinase plasminogen activator (uPA) in the activation of pro-matrix metalloproteinase (MMP)-13." in: **Rheumatology international**, Vol. 32, Issue 10, pp. 3069-75, (2012) (PubMed).

Images



ELISA

Image 1. Mouse MIP-3 alpha/CCL20 PicoKine ELISA Kit standard curve