

Datasheet for ABIN921079

CCL2 ELISA Kit



[Go to Product page](#)

1 Image

22 Publications

Overview

Quantity:	96 tests
Target:	CCL2
Binding Specificity:	AA 24-96
Reactivity:	Mouse
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 Mouse MCP-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: Q24-R96
Specificity:	Expression system for standard: E.coli Immunogen sequence: Q24-R96
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<6pg/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:	CCL2
Alternative Name:	CCL2 (CCL2 Products)
Background:	<p>Protein Function: Chemotactic factor that attracts monocytes, but not neutrophils.</p> <p>Background: Monocyte chemotactic protein-1(MCP-1) is a member of the small inducible gene(SIG) family. It has been shown to play a role in the recruitment of monocytes to sites of injury and infection. By analysis of a panel of somatic cell hybrids, we have localized the MCP-1 gene, designated SCYA2, to human chromosome 17. In situ hybridization confirmed this assignment and further localized the gene to 17q11.2-q21.1. MCP-1 plays a unique and crucial role in the initiation of atherosclerosis and may provide a new therapeutic target in this disorder. Monocyte chemoattractant protein-1(MCP-1), regulated on activation, normal T cell expressed and secreted,and stimulation of monocytes from healthy carriers of the genotype GG with Mycobacterium tuberculosis antigens yielded higher MCP-1. The standard used in this kit is recombinant mouse MCP-1(Q24-R96) with the molecular mass of 8.5Kda.</p> <p>Synonyms: C-C motif chemokine 2,Monocyte chemoattractant protein 1,Monocyte chemotactic protein 1,MCP-1,Platelet-derived growth factor-inducible protein JE,Small-inducible cytokine A2,Ccl2,Je, Mcp1, Scya2,</p> <p>Full Gene Name: C-C motif chemokine 2</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	20296
UniProt:	P10148
Pathways:	Cellular Response to Molecule of Bacterial Origin , Positive Regulation of Immune Effector Process , ER-Nucleus Signaling , Unfolded Protein Response , 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
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Application Details

assay was recommended for both standard and sample testing.

Plate: Pre-coated

Protocol: mouse MCP-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for MCP-1 has been precoated onto 96-well plates. Standards(E.coli, Q24-R96) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for MCP-1 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 MCP-1 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 mouse MCP-1 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 or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse MCP-1 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 51, Standard deviation: 2.142, CV(%): 4.2
- Sample 2: n=16, Mean(pg/ml): 326, Standard deviation: 16.63, CV(%): 5.1
- Sample 3: n=16, Mean(pg/ml): 658, Standard deviation: 36.85, CV(%): 5.6,
- Sample 1: n=24, Mean(pg/ml): 64, Standard deviation: 3.392, CV(%): 5.3
- Sample 2: n=24, Mean(pg/ml): 358, Standard deviation: 20.41, CV(%): 5.7
- Sample 3: n=24, Mean(pg/ml): 712, Standard deviation: 42.72, CV(%): 6

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

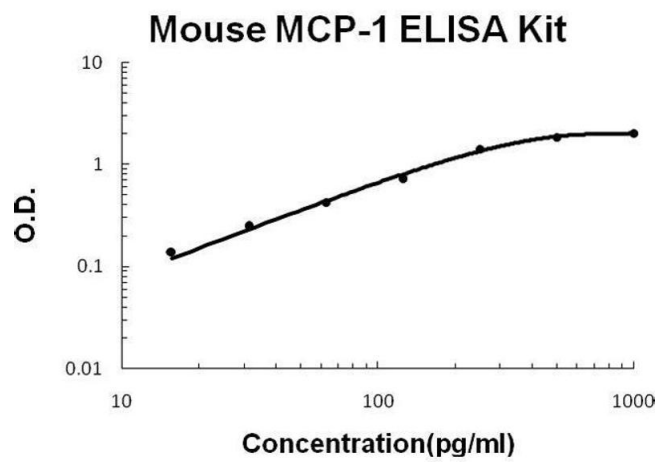
Publications

Product cited in: Fang, Xie, Liu, Fu, Ye, Liu, Zhang: "Tanshinone IIA improves hypoxic ischemic encephalopathy

through TLR-4-mediated NF- κ B signal pathway." in: **Molecular medicine reports**, Vol. 18, Issue 2, pp. 1899-1908, (2018) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



ELISA

Image 1. Mouse MCP-1 PicoKine ELISA Kit standard curve