

## Active Recombinant Rat Ccl2 protein, His-tagged

Cat. No. Ccl2-6111R Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Active Recombinant Rat Ccl2 protein(P14844)(24~148 aa), fused with N-terminal His tag, was expressed in E.coli.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>ProteinLength</b>	24-148 aa
<b>Form</b>	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
<b>Bio-activity</b>	<p>Monocyte Chemotactic Protein 1 (MCP1), also known as C-C motif chemokine 2(CCL2), is a member of the <math>\beta</math> (C-C) subfamily of chemokines that is a chemoattractant for monocytes and basophils. Rat CCL2 is secreted as a 14 kDa glycoprotein monomer but noncovalent dimers probably occur. CCL2 is best known as a chemotactic agent for mononuclear cells. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of recombinant rat MCP1 on the THP-1 cell line. Briefly, THP-1 cells were seeded into the upper chambers (150 <math>\mu</math>L cell suspension, <math>10^6</math> cells/mL in RPMI 1640 with FBS free) and MCP1 (0.01 ng/mL, 0.1 ng/mL, 1 ng/mL, 10 ng/mL, 100 ng/mL and 1000 ng/mL diluted separately in serum free RPMI 1640 ) was added in lower chamber with a polycarbonate filter (8 <math>\mu</math>m pore size) used to separate the two compartments. After incubation at 37°C with 5% CO<sub>2</sub> for 2h, the filter was removed, then cells in low</p>

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chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high magnification (×400) randomly (five fields for each filter). Result shows MCP1 is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (×100) were shown. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). The optimum chemotaxis of recombinant rat MCP1 occurs at 0.01-0.1 ng/mL.

**Molecular Mass** 15.4kDa

**Endotoxin** <1.0EU per 1µg (determined by the LAL method).

**Purity** > 97% as determined by SDS-PAGE.

**Storage** Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.

**Reconstitution** Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

**Gene Name** Ccl2 chemokine (C-C motif) ligand 2 [ *Rattus norvegicus* ]

**Official Symbol** Ccl2

**Synonyms** CCL2; chemokine (C-C motif) ligand 2; C-C motif chemokine 2; small inducible gene JE; small inducible cytokine A2; small-inducible cytokine A2; monocyte chemotactic protein 1; monocyte chemoattractant protein 1; monocyte chemoattractant protein-1; immediate-early serum-responsive JE protein; immediate-early serum-responsive protein JE; MCP-1; Scya2; Sigje;

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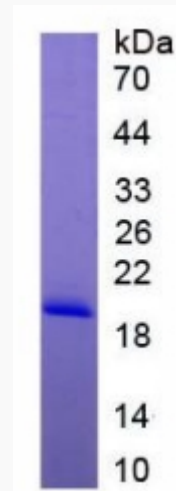
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**Gene ID** 24770

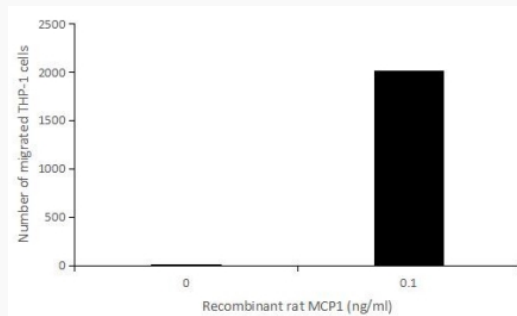
**mRNA Refseq** NM\_031530

**Protein Refseq** NP\_113718

**SDS-PAGE**



**Activity**



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