# Active Chemokine C-X3-C-Motif Ligand 1 (CX3CL1) Instruction Manual

## SBPA023Ra01

**Rattus norvegicus (Rat)**

| | |
|---|---|
| **Buffer Formulation** | 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| **Traits** | Freeze-dried powder |
| **Purity** | > 95% |
| **Isoelectric Point** | 5.1 |
| **Applications** | Cell culture; Activity Assays. |

**ACTIVITY TEST**

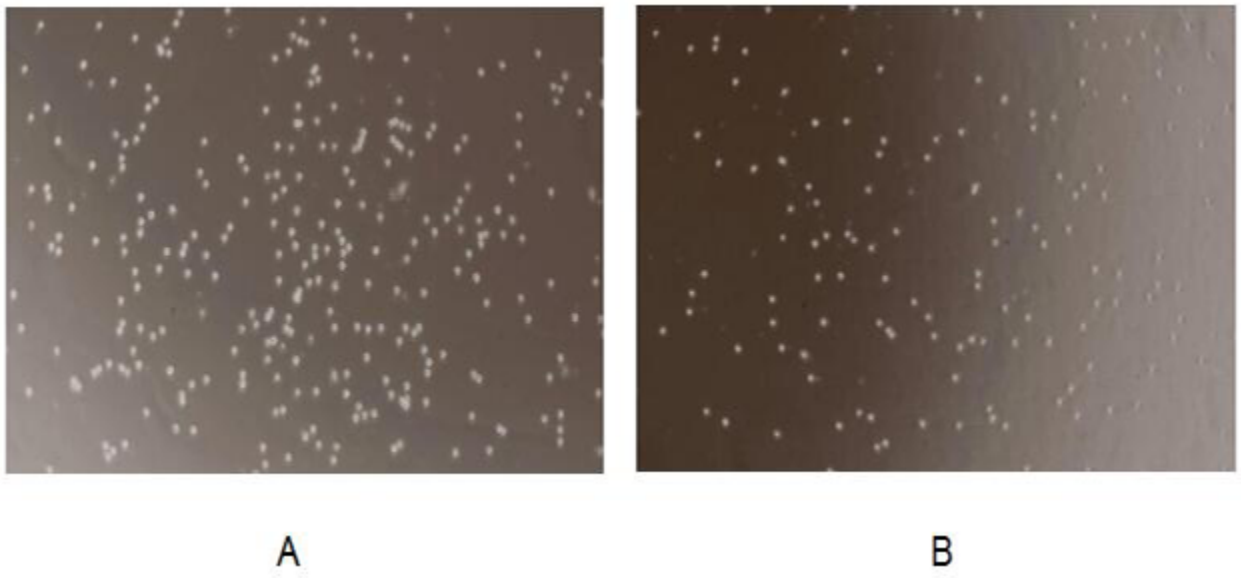


Figure. The chemotactic effect of CX3CL1 on THP-1 cells

Chemokine C-X3-C-Motif Ligand 1 (CX3CL1) also known as fractalkine is a large cytokine protein of 373 amino acids, it contains multiple domains and is the only known member of the CX3C chemokine family. Soluble CX3CL1 potently chemoattracts T cells and monocytes, while the cell-bound chemokine promotes strong adhesion of leukocytes to activated endothelial cells, where it is primarily expressed.Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of

CX3CL1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (150uL cell suspension, 106 cells/mL in RPMI 1640 with FBS free) and SLC (15.625ng/mL, 31.25ng/mL, 62.5ng/mL and 125ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8um pore size) used to separate the two compartments. After incubation at 37℃ with 5% CO2 for 1h, the filter was removed, then cells in low 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 CX3CL1 is able to induce migration of THP-1 cells. The migrated Jurkat cells in low chamber at low magnification (×100) were shown in Figure 1. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). Statistical results were shown in Figure 2. The optimum chemotaxis of CX3CL1 occurs at 15.625-125ng/mL.
(A) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 with 31.25ng/mL CX3CL1 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 1h;
(B) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 without CX3CL1 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 1h.

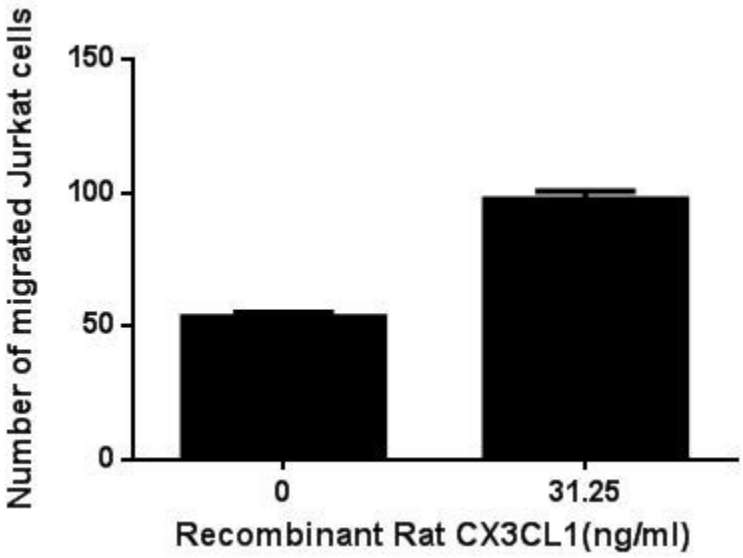


Figure. The chemotactic effect of CX3CL1 on THP-1 cells.

**USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## Image

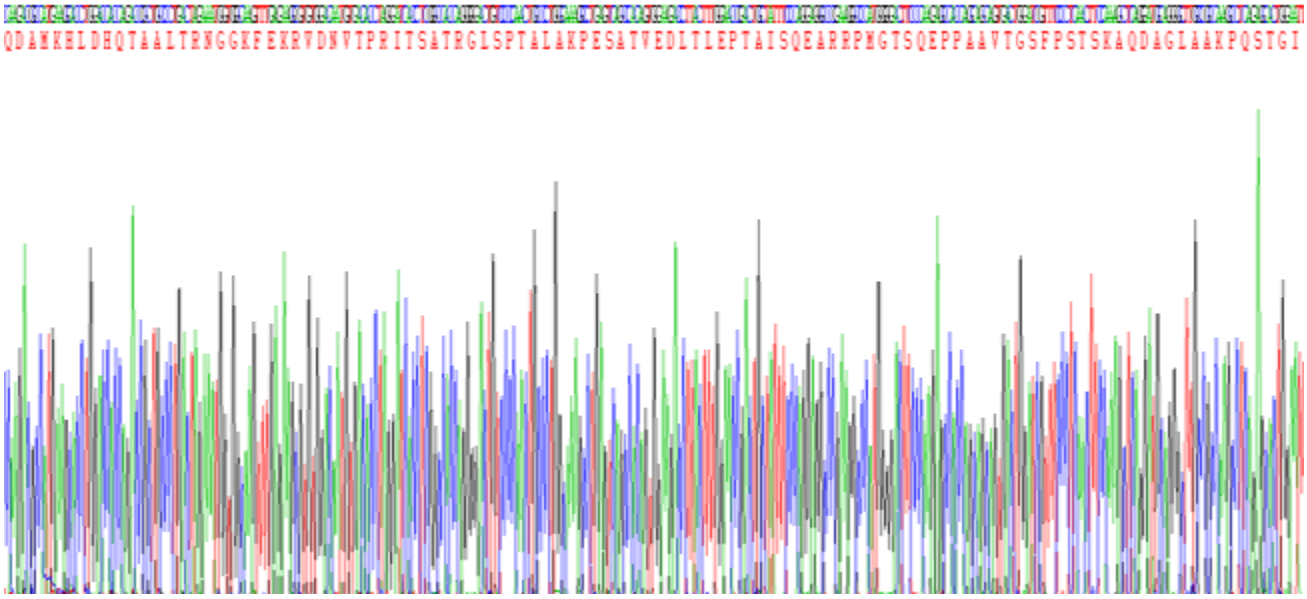

Figure. SDS-PAGE

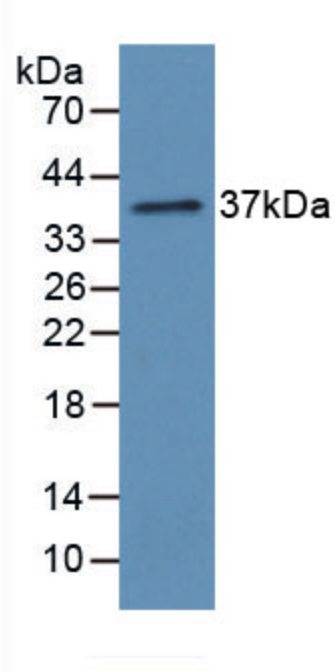

Figure. Western Blot

**[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.