

# Active Chemokine (C-X-C Motif) Ligand 1 (CXCL1) Instruction Manual

**SBPA024Hu01**

**Homo sapiens (Human)**

**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**

> 97%

**Isoelectric Point**

8.3

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**

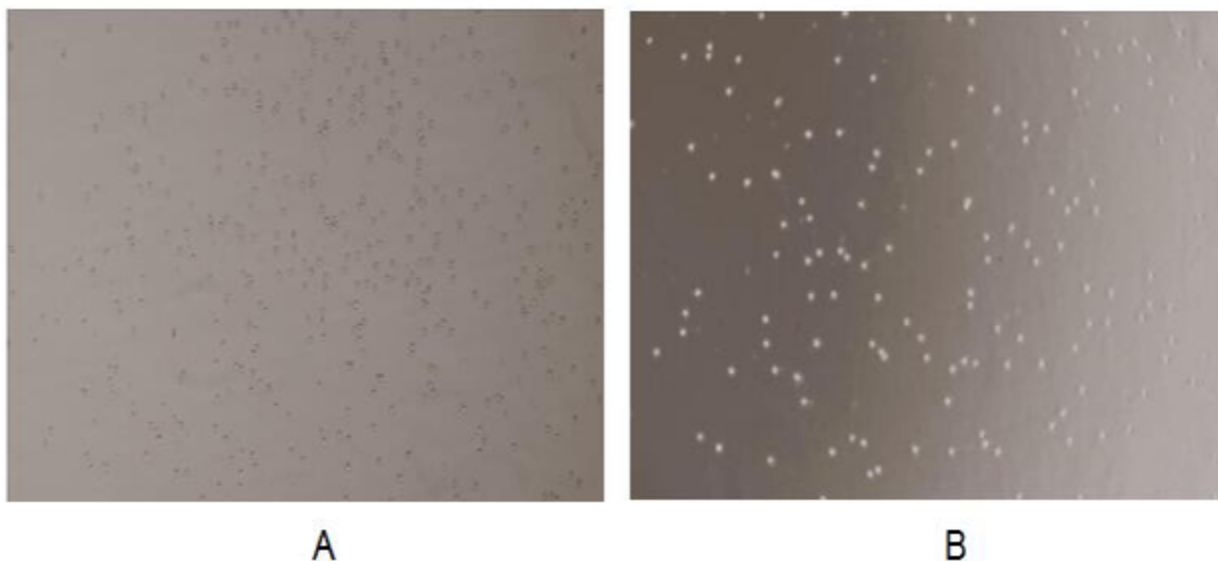


Figure. The chemotactic effect of NAP3 on THP-1 cells. Neutrophil-activating protein 3 (NAP3) also known as chemokine (C-X-C motif) ligand 1 (CXCL1) is a small cytokine belonging to the CXC chemokine family. NAP3 is expressed by macrophages, neutrophils and epithelial cells, and has neutrophil chemoattractant activity. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of NAP3 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100uL cell

suspension, 106 cells/mL in RPMI 1640 with FBS free) and SLC (31.25ng/mL, 62.5ng/mL, 125ng/mL and 250ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8µm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO<sub>2</sub> 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 NAP3 is able to induce migration of THP-1 cells. The migrated THP-1 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 NAP3 occurs at 31.25-250ng/mL.

(A) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 with 62.5ng/mL NAP3 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 NAP3 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 1h.

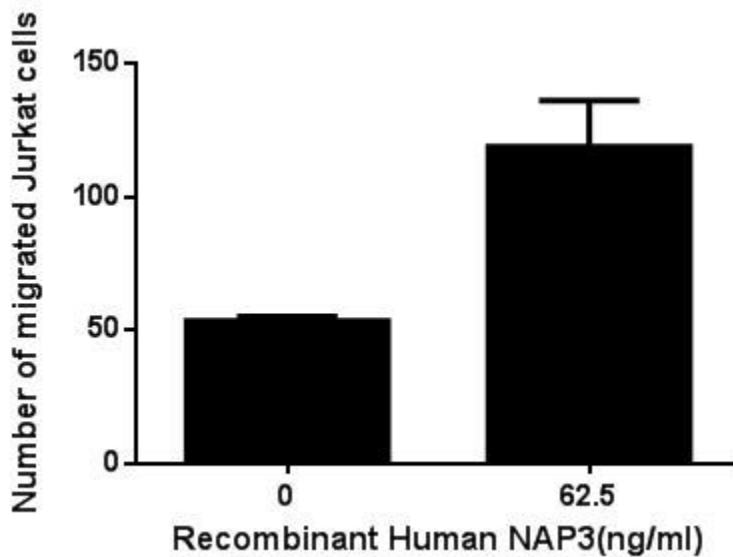


Figure. The chemotactic effect of NAP3 on THP-1 cells.

## 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

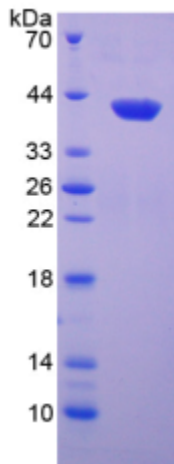


Figure. SDS-PAGE

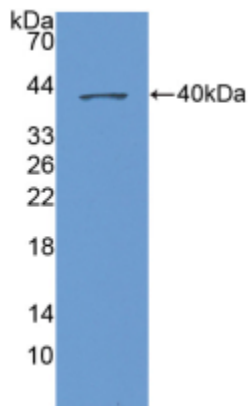


Figure. Western Blot

**[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.