APB607Hu01 100μg
Active Chemokine (C-X-C Motif) Ligand 14 (CXCL14)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ser35~Glu111
Tags: N-terminal His and GST Tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.9
Predicted Molecular Mass: 39.4kDa
Accurate Molecular Mass: 40kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

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

[STORAGE AND STABILITY]

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

Stability Test: 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 37ºC 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.

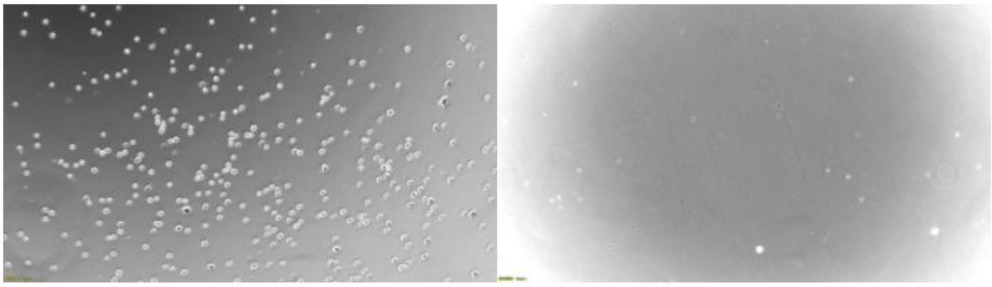
[SEQUENCE]

SKCKCS RKGPKIRYSD
VKKLEMKPKY PHCEEKMVII TTKSVSRYRG QEHCLHPKLQ STKRFIKWYN
AWNEKRRVYE E

[ACTIVITY]

Active Chemokine (C-X-C Motif) Ligand 14 (meiceguo) is a member of the CXC chemokine superfamily (1-5). CXCL14 is expressed by a variety of immune and non-immune cells,such as monocytes and B cells stimulated by LPS. It has been demonstrated that CXCL14 is a highly selective chemoattractant for monocytes that have been treated with prostaglandin E2 or forskolin, agents that activate adenylate cyclase.It also attracts certain cells of the immune system, including dendritic cells and antigen-engaged B cells, CCR7+ central-memory T-Cells. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of recombinant human CXCL14 on the THP-1 cell line. Briefly, THP-1 cells were seeded into the upper chambers (200 μ L cell suspension,106 cells/mL in RPMI 1640 with FBS free) and CXCL14 (0.01ng/mL, 0.1ng/mL, 1ng/mL, 10ng/mL,100ng/mL and 1000 ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8 μ m pore size) used to separate the two compartments. After incubation at 37℃ with 5% CO2 for 2h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×10) and the number of migrated cells were counted randomly (five fields for each filter). Result shows MIP-3 α is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (×10) were shown in Figure 1.

Five fields of each chamber were randomly chosen, and the migrated cells were counted at magnification (× 10). Statistical results were shown in Figure 2. The optimum chemotaxis of recombinant human CXCL14 occurs at 1-1000 ng/mL.



A B

Figure.1 The chemotactic effect of recombinant human CXCL14 on THP-1 cells

(A) THP-1 cells were seeded into the upper chambers and 1000 ng/mL CXCL14 was added in lower chamber, then cells in lower chamber were observed at low magnification (×10) after incubation for 2h;

(B) THP-1 cells were seeded into the upper chambers without CXCL14 was added in lower chamber, then cells in lower chamber were observed at low magnification (×10) after incubation for 2h.

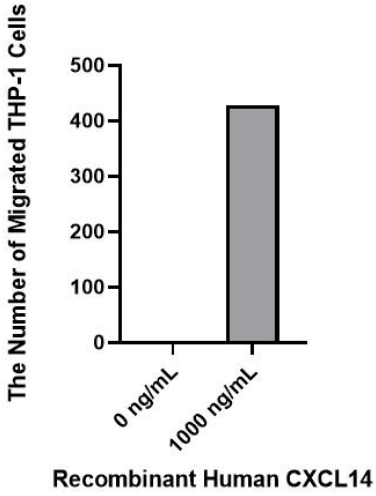


Figure 2. The chemotactic effect of recombinant human CXCL14 on THP-1 cells

[IDENTIFICATION]

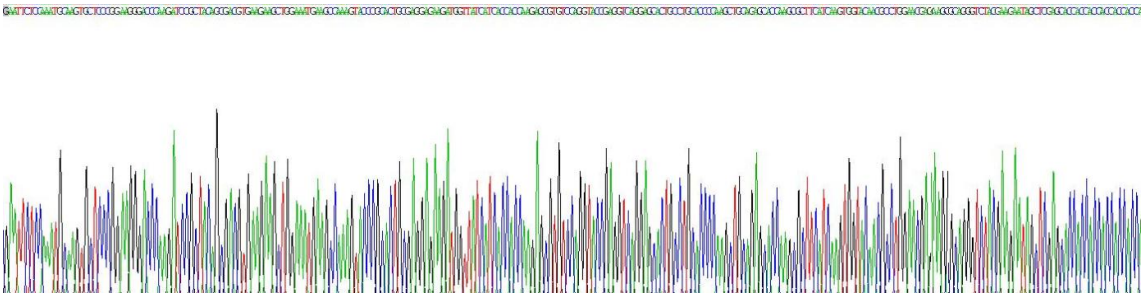


Figure 3. Gene Sequencing (extract)

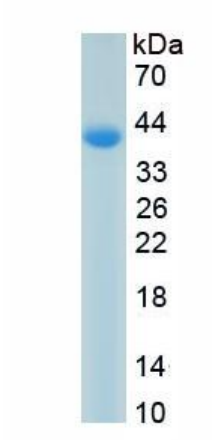


Figure 4. SDS-PAGE

Sample: Active recombinant CXCL14, Human

[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.