APA080Rb01 100μg
Active Interleukin 8 (IL8)
Organism Species: Oryctolagus cuniculus (Rabbit)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ala23~Ser101
Tags: N-terminal His-tag
Purity: >95%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 9.1
Predicted Molecular Mass: 12.5kDa
Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8^{o}C for one month.
Aliquot and store at -80^{o}C for 12 months.

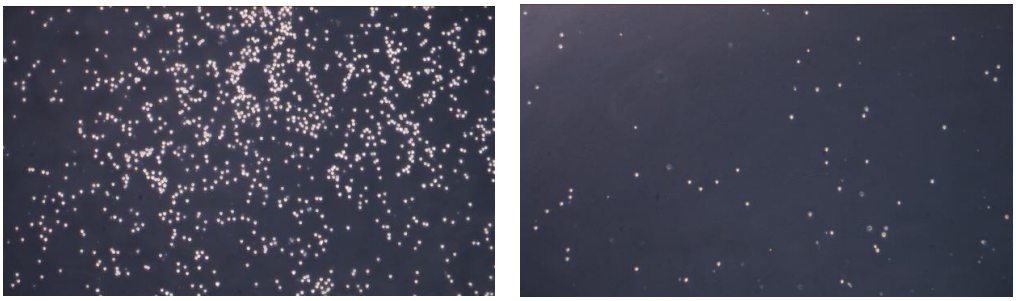
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date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

[SEQUENCE]

AVLTRIGT ELRCQCIKTH STPFHPKFIK ELRVIESGPH CANSEIIVKL VDGRELCLDP KEKWVQKVVQ IFLKRAEQQE S

[ACTIVITY]

Interleukin 8 (IL8 or chemokine (C-X-C motif) ligand 8, CXCL8) is a chemokine produced by macrophages and other cell types such as epithelial cells, airway smooth muscle cells and endothelial cells. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of IL8 on the human T-lymphocyte leukemia cell line Jurkat. Briefly, Jurkat cells were seeded into the upper chambers (100uL cell suspension, 10^6cells/ml in RPMI 1640 with FBS free) and IL8 (0.1ng/mL, 1ng/mL and 10ng/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% CO_2 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 IL8 is able to induce migration of Jurkat 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 IL8 occurs at 1~10ng/mL.



A B

Figure 1.The chemotactic effect of IL8 on Jurkat cells.

(A) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 with 1ng/mL IL8 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 1h;

(B) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 without IL8 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 1h.

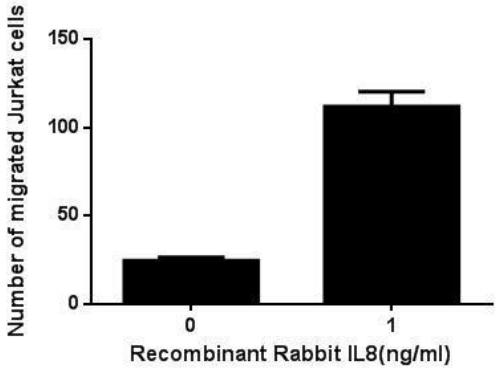


Figure 2. The chemotactic effect of IL8 on Jurkat cells.

[IDENTIFICATION]

AVLTRIGTELRCQCIKTHSTPFHPKFIKELRVIESGPHCANSEIIVKLVDGRELCLDPKEKWVQKVVQIFLKRAEQQES

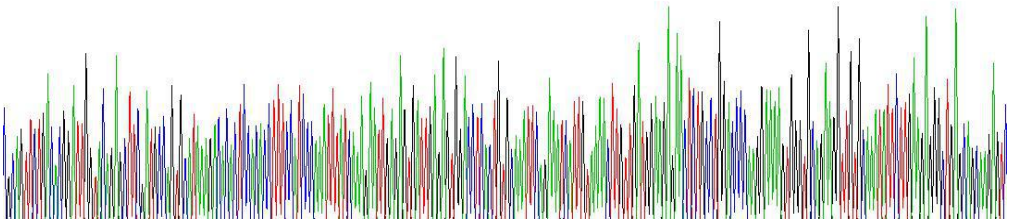


Figure 3. Gene Sequencing (extract)

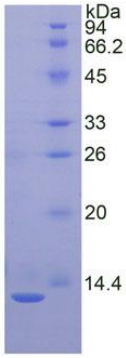


Figure 4. SDS-PAGE

Sample: Active recombinant IL8, Rabbit

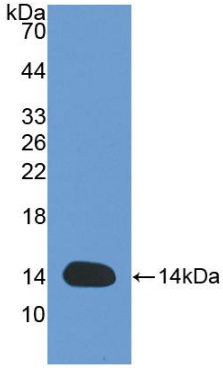


Figure 5. Western Blot

Sample: Recombinant IL8, Rabbit;

Antibody: Rabbit Anti-Rabbit IL8 Ab (PAA080Rb51)