**APA080Bo61 100μg**
**Active Interleukin 8 (IL8)**
**Organism Species: *Bos taurus; Bovine (Cattle)***
***Instruction manual***

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

## [ PROPERTIES ]

**Source:** Eukaryotic expression.
**Host:** 293F cell
**Residues:** Ala23~Pro101
**Tags:** N-terminal His-tag
**Purity:** >95%
**Endotoxin Level:** <1.0EU per 1μg (determined by the LAL method).
**Buffer Formulation:** PBS, pH7.4, containing 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:** 9.1
**Predicted Molecular Mass:** 10.7kDa
**Accurate Molecular Mass:** 13kDa 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 ]

AVLSRMST ELRCQCIKTH STPFHPKFIK ELRVIESGPH CENSEIIVKL TNGNEVCLNP KEKWVQKVVQ VFVKRAEKQD P

## [ 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 (150 ul cell suspension, 106 cells/ml in RPMI 1640 without FBS) and different concentrations of recombinant bovine IL8 diluted in serum free RPMI 1640 was added in lower chamber with a polycarbonate filter (8 um pore size) used to separate the two compartments. After incubation at 37℃ with 5% CO2 for 60 min, 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 0.01-0.1 ng/ml.


**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 0.1 ng/ml recombinant bovine IL8 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 60 min;

(B) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 without recombinant bovine IL8 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 60 min.

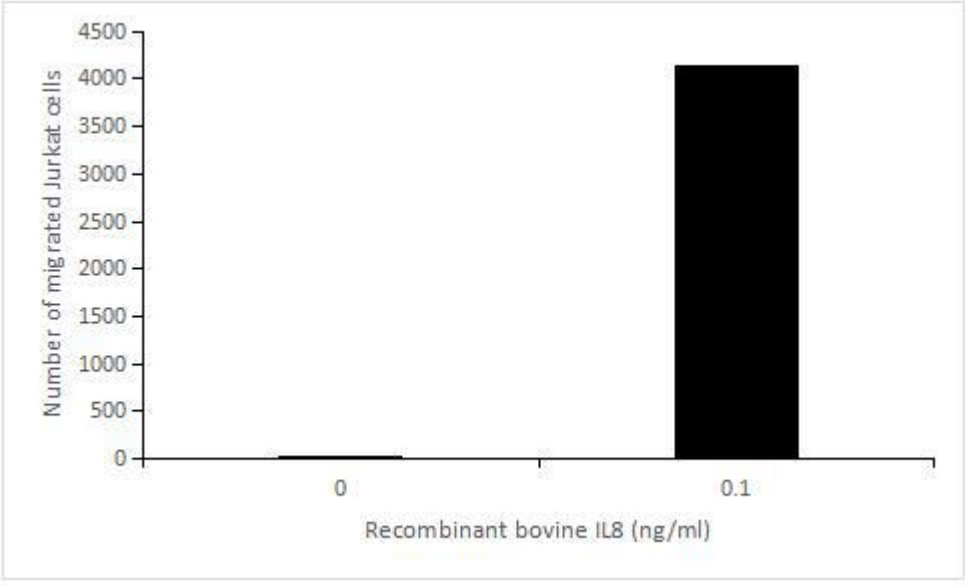


**Figure 2.The chemotactic effect of recombinant bovine IL8 on Jurkat cells.**

## [ IDENTIFICATION ]

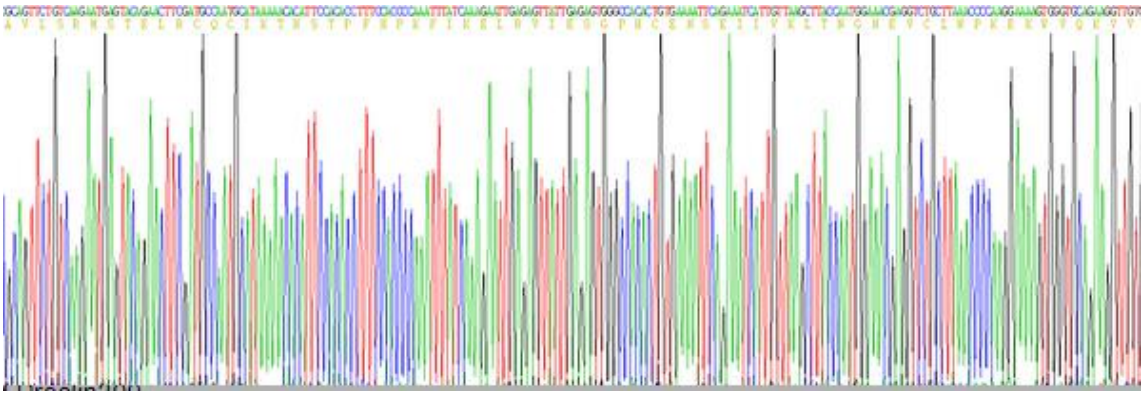

**Figure 3. Gene Sequencing (extract)**

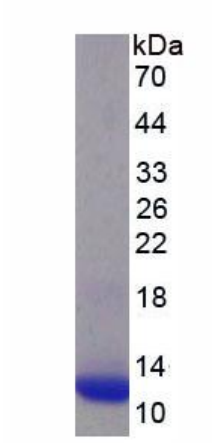


**Figure 4. SDS-PAGE**

**Sample: Active recombinant IL8, Cattle**

## [ 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.