APA821Ra01 100μg
Active C Reactive Protein (CRP)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: His20~Ser230
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 5.7
Predicted Molecular Mass: 27.0kDa
Accurate Molecular Mass: 27kDa 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 2-8°C for one month.
Aliquot and store at -80°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]

H EDMSKQAFVF PGVSATAYVS LEAESKKPLE AFTVCLYAHA DVSRSFSIFS
YATKTSFNEI LLFWTRGQGF SIAVGGPEIL FSASEIPEVP THICATWESA TGIVELWLDG
KPRVRKSLQK GYIVGTNASI ILGQEQDSYG GGFDANQSLV GDIGDVNMWD
FVLSPEQINA VYVGRVFSPN VLNWRALKYE THGDVFIKPQ LWPLTDCCES

[ACTIVITY]

C-reactive protein (CRP) is an annular (ring-shaped), pentameric protein found in blood plasma, whose levels rise in response to inflammation. It is an acute-phase protein of hepatic origin that increases following interleukin-6 secretion by macrophages and T cells. Its physiological role is to bind to lysophosphatidylcholine expressed on the surface of dead or dying cells (and some types of bacteria) in order to activate the complement system via C1q.Besides,CRP have been proved can promote migration of HepG2 cells, 5×104 cells were seeded into 6 well plates. After cell confluent, using a (yellow) pipette tip make a straight scratch, simulating a wound, then washing the wells three times with PBS. Adding 1% serum standard DMEM containing various concentrations of recombinan rat CRP to each well, incubating the plate for 48 hours at 37℃, 5% CO2. Use Image J to measure the area of a scratch, then caculate the cell motility with (0harea -48harea)/0harea ×100%. After affect with 62.5ng/ml CRP for 48h, cell motility is 47%,wiithout affect by CRP, the cell motility is 27%. The results observed by inverted microscope was shown in Figure1.

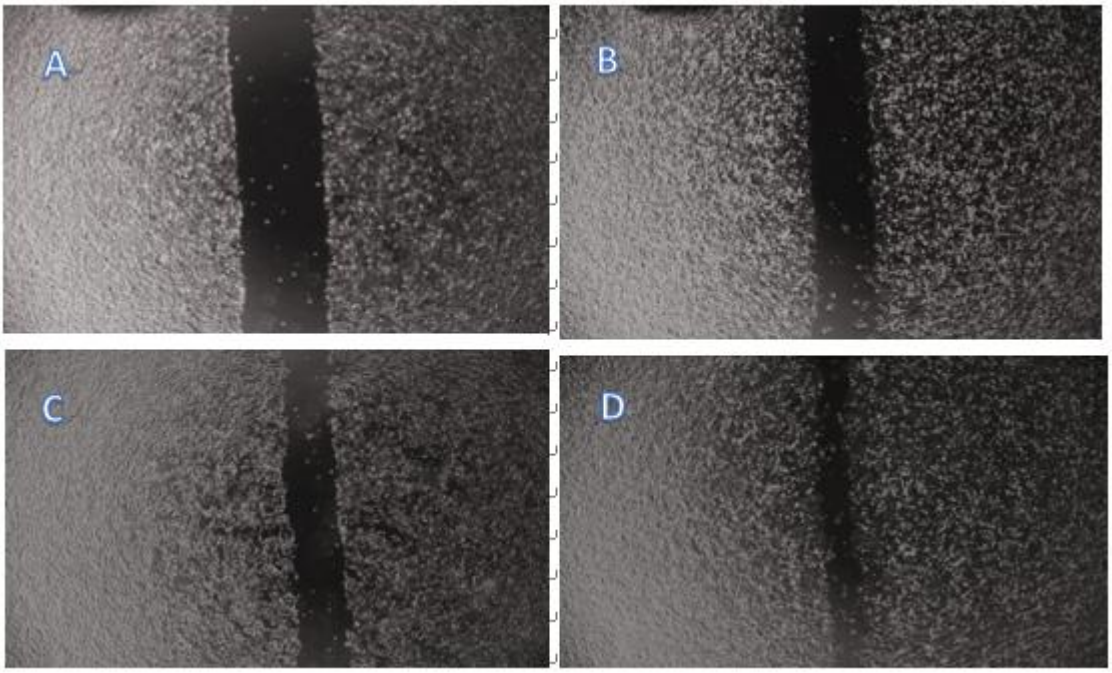

Figure 1. Wound healing assay of HepG2 cells after affect with CRP.

A. HepG2 cells cultured in DMEM without CRP for 0h ;

B. HepG2 cells cultured in DMEM without CRP for 48h;

C. HepG2 cells cultured in DMEM with 62.5ng/ml CRP for 0h;

D. HepG2 cells cultured in DMEM with 62.5ng/ml CRP for 48h

[IDENTIFICATION]

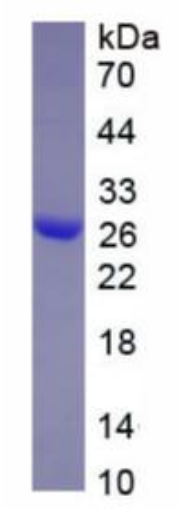

Figure 2. SDS-PAGE

Sample: Active recombinant CRP, Rat

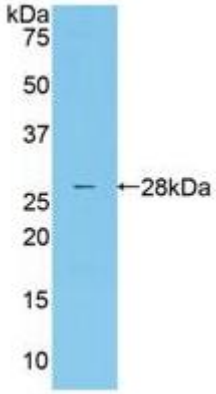

Figure3. Western Blot

Sample: Recombinant CRP, Rat;

Antibody: Rabbit Anti- Rat CRP Ab (PAA821Ra01)

[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.