

APA885Hu01 100µg
Active Serum Amyloid A (SAA)
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: Arg19~Tyr122

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, 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: 6.3

Predicted Molecular Mass: 12.9kDa

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°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 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.

[SEQUENCE]

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RS FFSFLGEAFD GARDMWRAYS DMREANYIGS  
DKYFHARGNY DAAKRGGGV WAAEAISDAR ENIQRFFGHG AEDSLADQAA  
NEWGRSGKDP NHFRPAGLPE KY
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[ACTIVITY]

Serum Amyloid A (SAA) is a class of 104 amino acid conservative acute-phase proteins, which is essential in immune-mediated inflammatory processes, like IBD. SAA has dual roles in the inflammatory process, which it can stimulate the pro-inflammatory cytokine expression and promotes the pathogenic differentiation of TH17 cells. In addition, SAA can remove toxic lipids produced during inflammatory responses and membrane debris from dead cells, redirect HDL, and recycle cholesterol for tissue repair. Besides, C Reactive Protein (CRP) has been identified as an interactor of SAA, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human SAA and recombinant human CRP. Briefly, SAA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CRP-coated microtiter wells and incubated for 2h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-SAA pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50 µL stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human SAA and recombinant human CRP was shown in Figure 1, the EC50 for this effect is 5.3 ug/mL.



Figure 3. SDS-PAGE

Sample: Active recombinant SAA, 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.