

APA568Ra01 100µg
Active S100 Calcium Binding Protein A11 (S100A11)
Organism Species: *Rattus norvegicus* (Rat)
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: Ile9~Ile98

Tags: N-terminal His-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: 6.4

Predicted Molecular Mass: 11.6kDa

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 2-8°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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IE SLIAVFQKYS GKDGNSCHLS KTEFLSFMNT ELAAFTKNQK DPGVLDRMMK  
KLDLNSDGQL DFQEFLNLIG GLAIACHESF LQTSQKRI
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[ACTIVITY]

S100 Calcium Binding Protein A11 (S100A11) is a member of the S100 calcium-binding protein family, it contains two EF-hand calcium-binding motifs and shares 82% amino acid sequence identity with mouse and rat S100A11. S100 proteins are localized in the cytoplasm and nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. This protein may function in motility, invasion and tubulin polymerization. Besides, S100 Calcium Binding Protein A10 (S100A10) has been identified as an interactor of S100A11, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat S100A11 and recombinant human S100A10. Briefly, S100A11 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to S100A10-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-S100A11 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 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 450/630 nm immediately. The binding activity of recombinant rat S100A11 and recombinant human S100A10 was shown in Figure

1, the EC50 for this effect is 0.19 ug/ml.

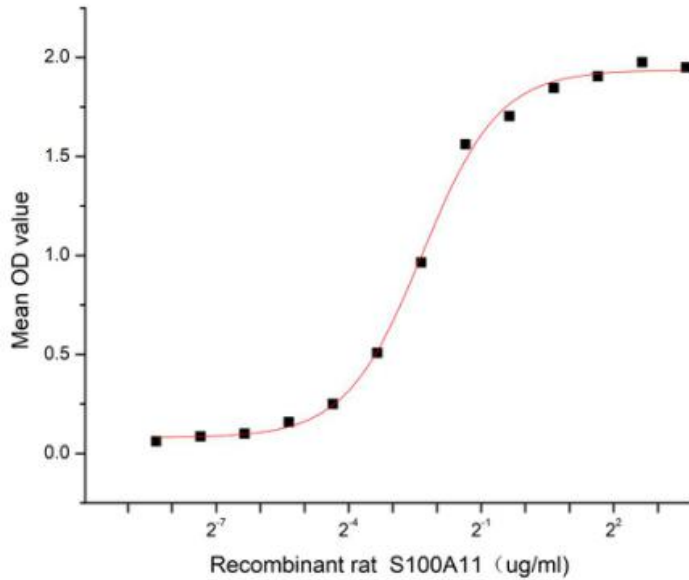


Figure 1. The binding activity of recombinant rat S100A11 and recombinant human S100A10

[IDENTIFICATION]

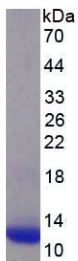


Figure 2. SDS-PAGE

Sample: Active recombinant S100A11, Rat

[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.