APA568Hu01 100μg
Active S100 Calcium Binding Protein A11 (S100A11)
Organism Species: *Homo sapiens (Human)*
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: Met1~Thr105
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: 6.6
Predicted Molecular Mass: 13kDa
Accurate Molecular Mass: 12kDa 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]

MAKISSPTET ERCIESLIAV FQKYAGKDGY NYTLSKTEFL SFMNTELAAF TKNQKDPGVL DRMMKKLDTN SDGQLDFSEF LNLIGGLAMA CHDSFLKAVP SQKRT

[ACTIVITY]

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. Chromosomal rearrangements and altered expression of this gene have been implicated in tumor metastasis .When extracellular calcium concentrations elevate ,S100A11 will associate with S100B as well as Annexins A1, A2, and A6. S100A11-Annexin A2 complexes are recruited to sites of plasma membrane damage where they facilitate membrane repair in migrating cancer cells. Thus a binding ELISA assay was conducted to detect the interaction of S100A11 and Annexin A2. Briefly, recombinant human S100A11 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100ul were then transferred to Annexin A2-coated microtiter wells and incubated for 2h at 37° C. Wells were washed with PBST and incubated for 1 h with anti-S100A11 mAb, 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 50μL stop solution to the wells and read at

450nm immediately. The binding activity of of S100A11 and Annexin A2 was shown in Figure 1, and this effect was in a dose dependent manner.

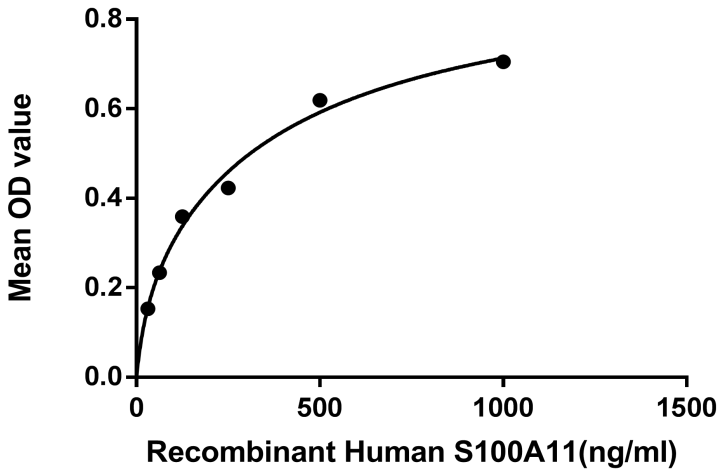

Figure 1. The binding activity of S100A11 with Annexin A2

[IDENTIFICATION]

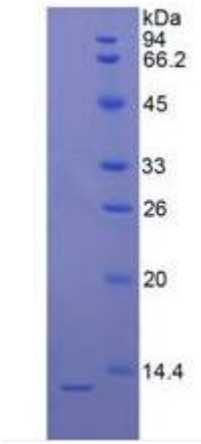

Figure 2. SDS-PAGE

Sample: Active recombinant S100A11, Human

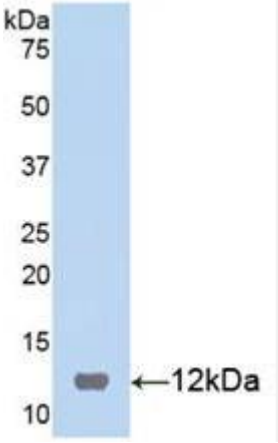

Figure 3. Western Blot

Sample: Recombinant S100A11, Human;

Antibody: Rabbit Anti- Human S100A11 Ab (PAA568Hu01)

[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.