

APB793Hu01 100µg

A Active S100 Calcium Binding Protein A9 (S100A9)

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~Pro114

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: 6.1

Predicted Molecular Mass: 14.5kDa

Accurate Molecular Mass: 14kDa 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.

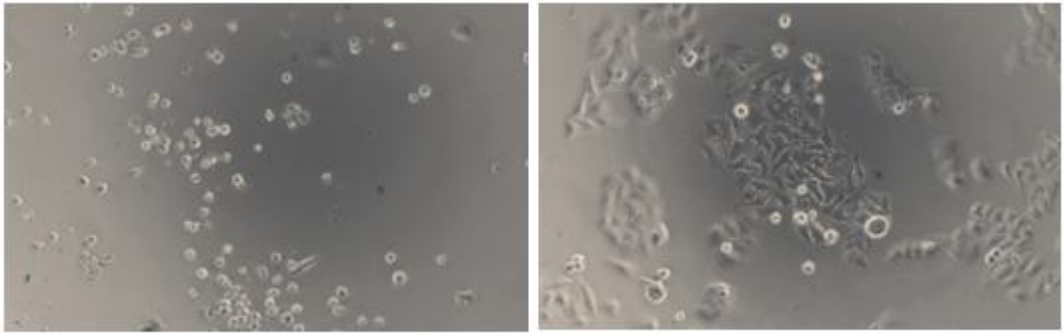
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

MTCKMSQLER NIETIINTFH QYSVKLGHPD TLNQGEFKEL VRKDLQNFLK KENKNEKVIE
HIMEDLDTNA DKQLSFEEFI MLMARLTWAS HEKMHEGDEG PGHHHKPGLG EGTP

[ACTIVITY]

S100 calcium-binding protein 9 (S100A9) also known as calgranulin B, is a member of the S100 family of secreted calcium binding proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or 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. Besides, it has been reported that S100A9 can inhibit Hela cells proliferation. To test the effect of S100A9 on cell apoptosis, Hela cells were seeded into 96-well plates at a density of 4,000 cells/well with 1% serum standard DMEM including various concentrations of recombinant human S100A9. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10µl of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1h at 37°C. Proliferation of Hela cells after incubation with S100A9 for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant human S100A9 for 48h. The result was shown in Figure 2. It was obvious that S100A9 significantly inhibit cell viability of Hela cells. The ED50 is 4.8µg/mL.



A

B

Figure 1. Inhibition of HeLa cells proliferation after stimulated with S100A9

- (A) HeLa cells cultured in DMEM, stimulated with 10µg/ml S100A9 for 48h;
- (B) Unstimulated HeLa cells cultured in DMEM for 48h.

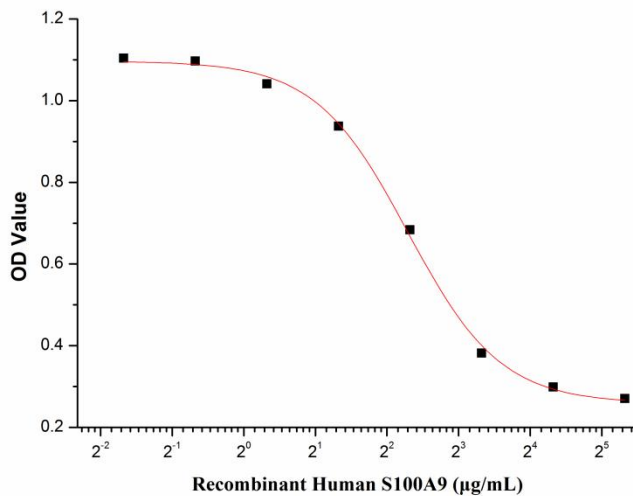


Figure 2. Inhibition of HeLa cells proliferation after stimulated with S100A9.

[IDENTIFICATION]

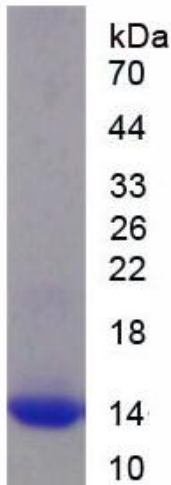


Figure 3. SDS-PAGE

Sample: Active recombinant S100A9, Human

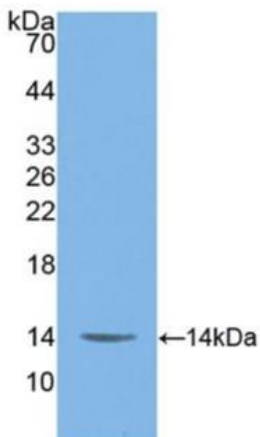


Figure 4. Western Blot

Sample: Recombinant S100A9, Human;

Antibody: Rabbit Anti- Human S100A9 Ab (PAB793Hu01)

[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.