

APA567Ra01 10µg
Active S100 Calcium Binding Protein B (S100B)
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: MSELEKAEF+Met1~Glu92

Tags: N-terminal His-tag

Purity: >95%

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

Buffer Formulation: 10mM PBS, pH7.4, containing 5% trehalose.

Original Concentration: 800µg/mL

Applications: Cell culture; Activity Assays; In vivo assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 4.5

Predicted Molecular Mass: 13.0kDa

Accurate Molecular Mass: 12kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH₂O to a concentration of 0-0.1 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]

```
MSELEKAEF MSELEKAMVA LIDVFHQYSG REGDKHKLKK SELKELINNE  
SHFLEEIKE QEVVDKVMET LDEDGDGECDFQEFMAFVSM VTTACHEFFE  
HE
```

[ACTIVITY]

Protein S100B is a member of the S100 family. S100 proteins are EF-hand calcium-binding proteins and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. Experimental results suggest that the receptor for advanced glycation end products (RAGE) plays important roles in mediating S100 protein-induced cellular signaling. Besides, rat RAGE shares similarities with human RAGE in amino acids sequence with the identity of 80.0%. Thus a binding ELISA assay was conducted to detect the interaction of recombinant rat S100B and recombinant human RAGE. Briefly, S100B were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to RAGE-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-S100B 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 S100B and RAGE was shown in Figure 1, and this effect was in a dose dependent manner.

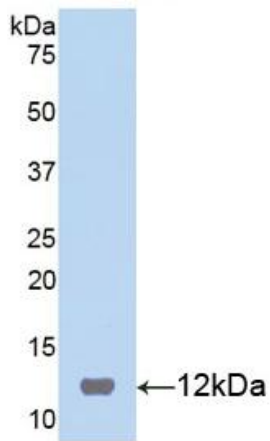


Figure 4. Western Blot

Sample: Recombinant S100B, Rat;

Antibody: Rabbit Anti-Rat S100B Ab (PAA567Ra01)

[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.