

# Active S100 Calcium Binding Protein A8 (S100A8) Instruction Manual

**SBPB270Hu01**

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 95%

**Isoelectric Point**

6.6

**Applications**

Cell culture; Activity Assays.

## ACTIVITY TEST

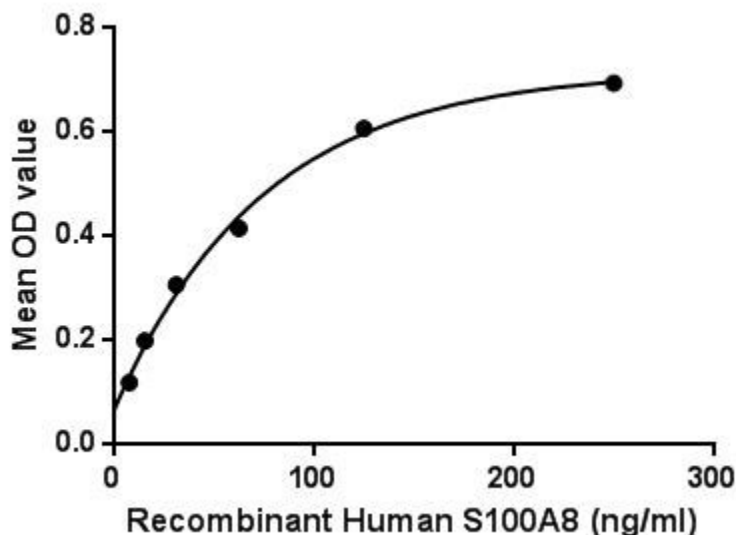


Figure. The binding activity of S100A8 with S100A9.

S100 calcium-binding protein A8 (S100A8) also known as calgranulin A, is a member of the S100 family of 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, S100 Calcium Binding Protein A9 (S100A9) has been identified as an interactor of S100A8, thus a binding ELISA assay was conducted to detect the interaction of recombinant human S100A8 and recombinant human S100A9. Briefly, S100A8 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 $\mu$ L were then transferred to S100A9-coated microtiter wells and incubated for 2h at

37°C. Wells were washed with PBST and incubated for 1h with anti-S100A8 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of S100A8 and S100A9 was shown in Figure 1, and this effect was in a dose dependent manner.

## **USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **STORAGE**

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## **STABILITY**

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.

## **Image**

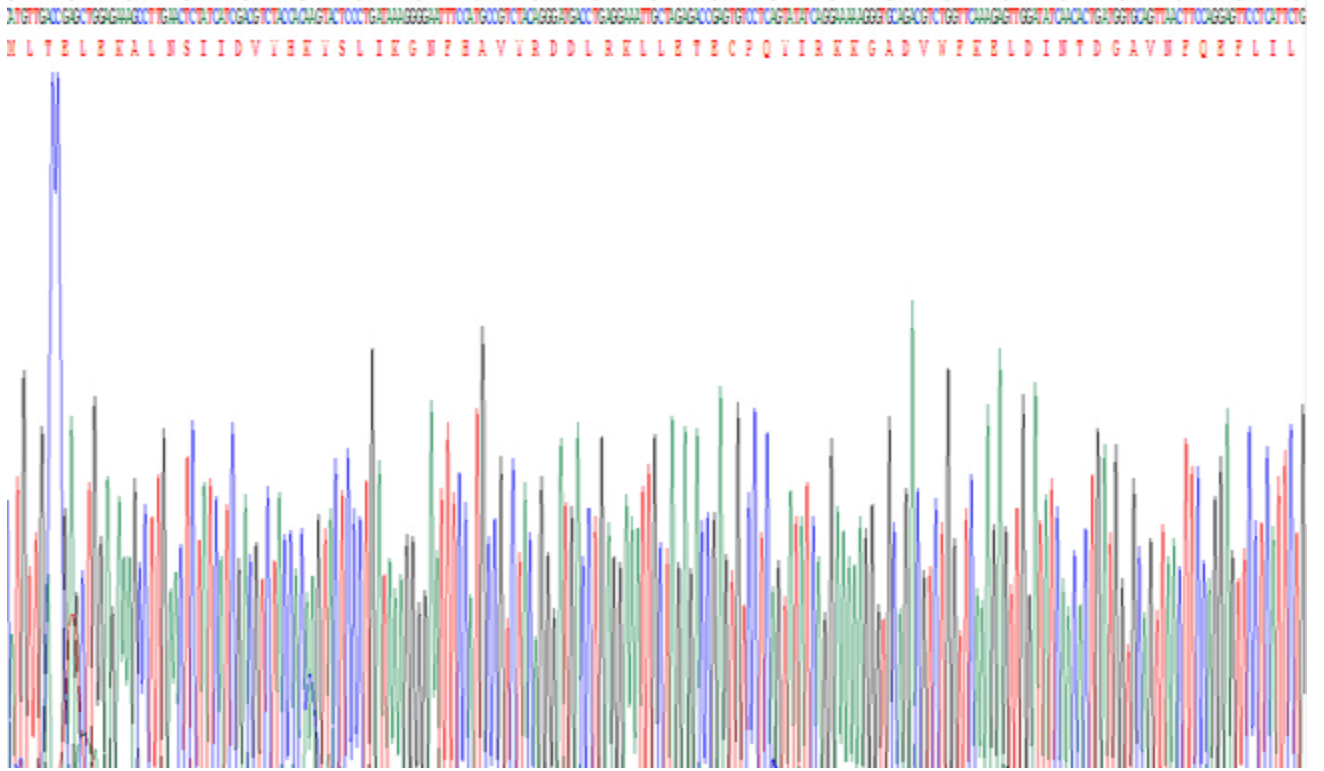


Figure. Gene Sequencing (Extract)

**Image**

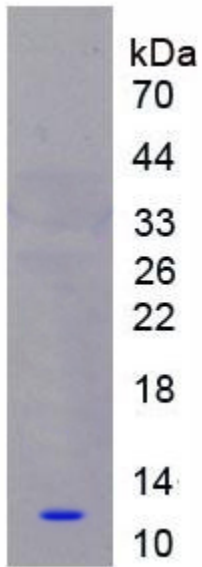


Figure. SDS-PAGE

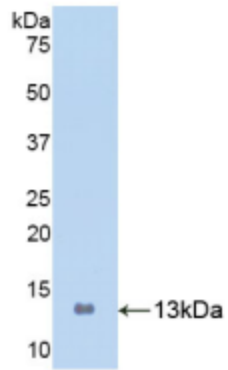


Figure. Western Blot

**[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.