

# Active Caspase 1 (CASP1) Instruction Manual

## SBPB245Ra01

### *Rattus norvegicus* (Rat)

#### 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

7.7

#### Applications

Cell culture; Activity Assays.

### ACTIVITY TEST

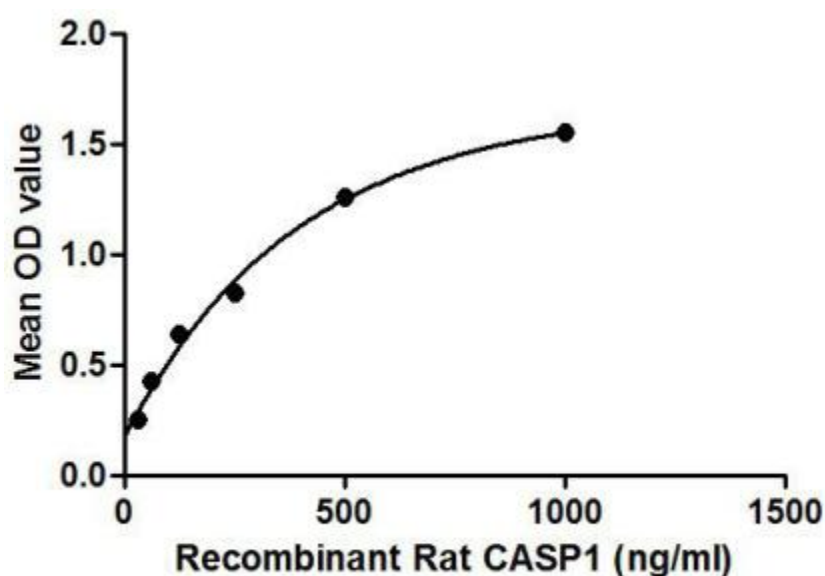


Figure 1. The binding activity of CASP1 with IL1a.

Caspase 1 (CASP1) cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. It also has lots of other function, such as defenses against pathogens, cleaves and activates sterol regulatory element binding proteins (SREBPs), promotes apoptosis. Besides, Interleukin 1 Alpha (IL1a) has been identified as an interactor of CASP1, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat CASP1 and recombinant rat IL1a. Briefly, CASP1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IL1a-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CASP1 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 of CASP1 and IL1a 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.

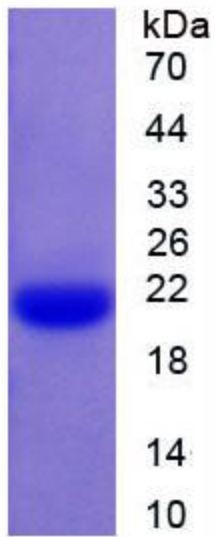
## **STORAGE**

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**



SDS-PAGE Image

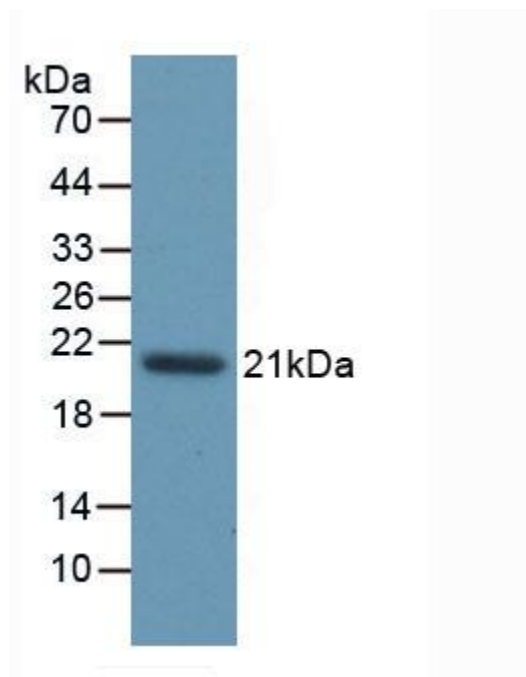


Figure. Western Blot; Sample: Recombinant CASP1, Rat.

**[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.

