

# Active Ribonuclease P (RNASEP) Instruction Manual

## SBPA098Hu01

**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**

> 90%

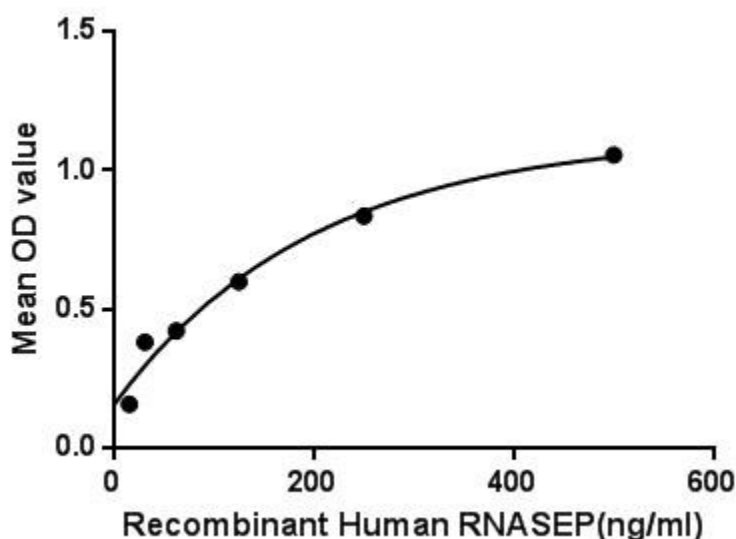
**Isoelectric Point**

6.2

**Applications**

Cell culture; Activity Assays.

### ACTIVITY TEST



Ribonuclease P (RNASEP) is a type of ribonuclease which cleaves RNA. RNase P is unique from other RNases in that it is a ribozyme – a ribonucleic acid that acts as a catalyst in the same way that a protein based enzyme would. Its function is to cleave off an extra, or precursor, sequence of RNA on tRNA molecules. Besides, Methyl CpG Binding Protein 2 (MECP2) has been identified as an interactor of RNASEP, thus a binding ELISA assay was conducted to detect the interaction of recombinant human RNASEP and recombinant human MECP2. Briefly, RNASEP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 $\mu$ L were then transferred to MECP2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-RNASEP 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 RNASEP and MECP2 was shown in Figure 1, and this effect was in a dose dependent manner.

Figure. The binding activity of RNASEP with MECP2.

## **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**

TG TGG GAT C TAT GCG A G A C T G A A A A C C T G G T A T G A C A C T G G A C C C A T T C T T G T G A G A T T A C C T C T T A G A T A A T T A C A C T G A A T T C A G T A C T T A T A A G A A G C T T C T G C T A T G C A C T A A C A T A C A T A C A T A T T G A T G A G A T A T A C T G T G C C C T G C A C A A T G G G A A T T A T T T T G C  
C G I L S E E L K N L V M N T G P Y F V K N L P L H E L I T P E F I S T F I K K G S C Y A L T Y N T H I D E D N T V A L L P N G K L I L S

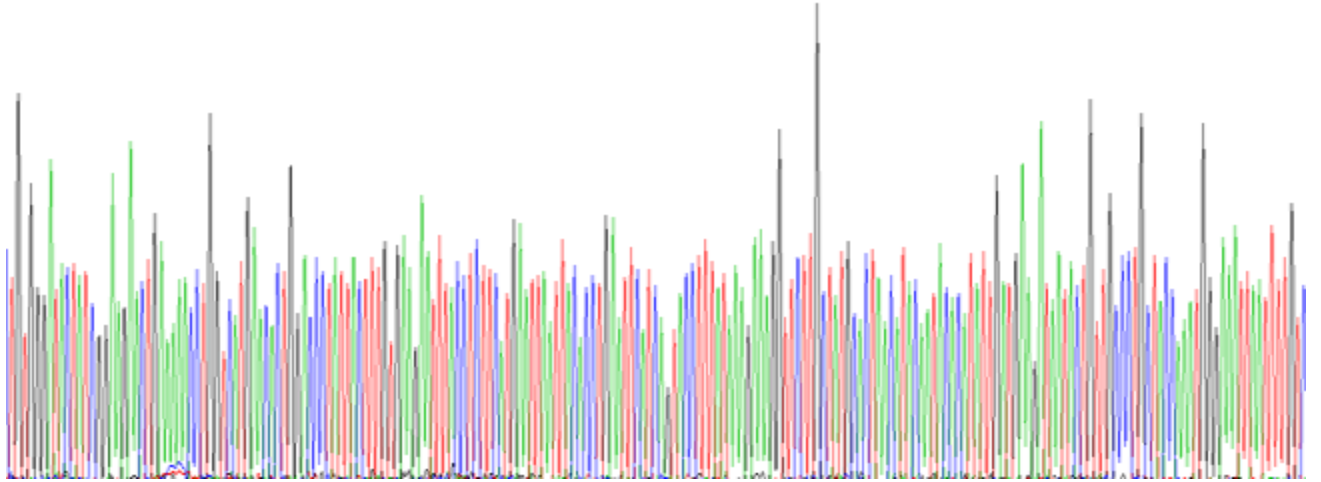


Figure. Gene Sequencing (Extract)

### Image

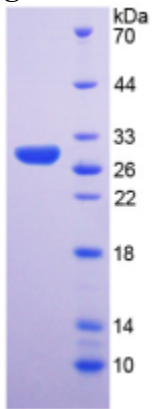


Figure. SDS-PAGE

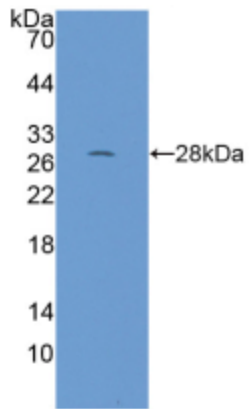


Figure. Western Blot

**[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.