APA198Hu01 100μg
Active Ribonuclease P (RNASEP)
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: Cys49~Asn258
Tags: N-terminal His-tag
Purity: >92%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 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: 6.2
Predicted Molecular Mass: 27.7kDa
Accurate Molecular Mass: 28kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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 37ºC 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]

CG
ILSEELKNLV MNTGPYYFVK NLPLHELITP EFISTFIKKG SCYALTYNTH
IDEDNTVALL PNGKLILSLD KDTYEETGLQ GHPSQFSGRK IMKFIVSIDL
MELSLNLDSK KYERISWSFK EKKPLKFDFL LAWHKTGSEE STMMSYFSKY
QIQEHQPKVA LSTLRDLQCP VLQSSELEGT PEVSCRALEL FDWLGAVFSN
VDLNNEPN

[ACTIVITY]

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 100μL were then transferred to MECP2-coated microtiter wells and incubated for 2h at 37℃. 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℃. 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.

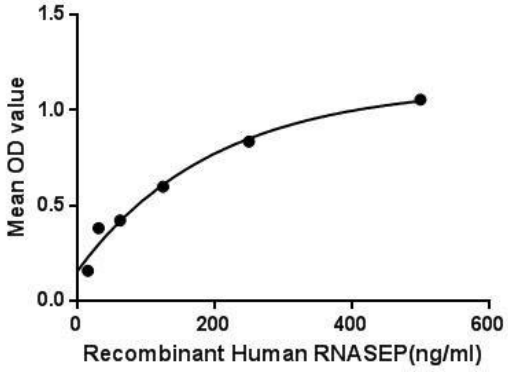

Figure 1. The binding activity of RNASEP with MECP2.

[IDENTIFICATION]

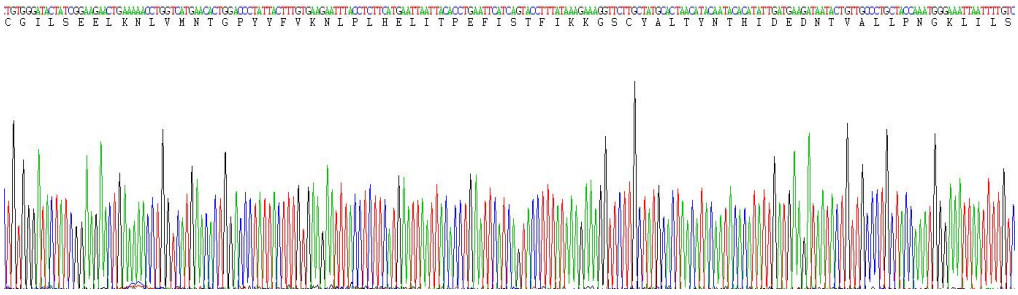

Figure 2. Gene Sequencing (extract)

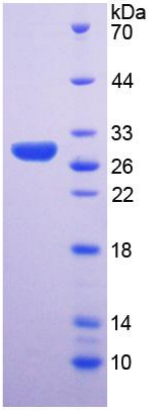

Figure 3. SDS-PAGE

Sample: Active recombinant RNASEP, Human

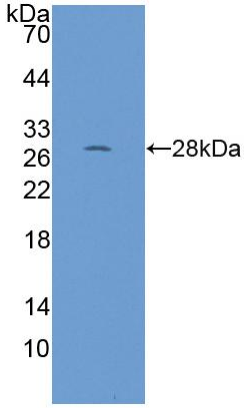

Figure 4. Western Blot

Sample: Recombinant RNASEP, Human;

Antibody: Rabbit Anti-Human RNASEP Ab (PAA198Hu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.