

Ribonuclease P Active Protein | RNASEP active protein

Active Ribonuclease P (RNASEP)

CATALOG #
AAA150082

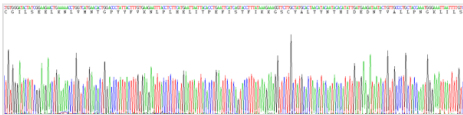
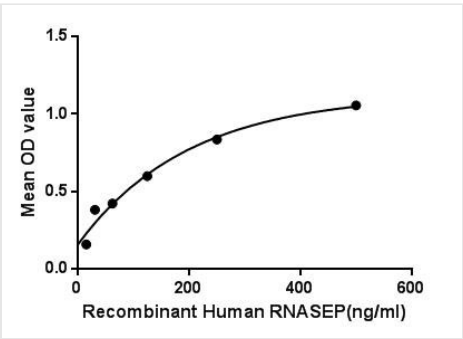
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Ribonuclease P; Active Ribonuclease P (RNASEP); Rnase-P; RNASEP1; RPP40; Ribonuclease P/MRP 40kDa Subunit; RNASEP active protein

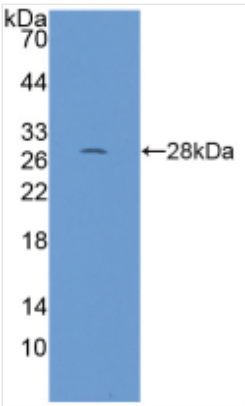
PRODUCT SPECIFICATIONS

Purity/Purification	>90%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Cys49~Asn258
Sequence Length	244
Applicable Applications for RNASEP active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	6.2
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. 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 degree 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.

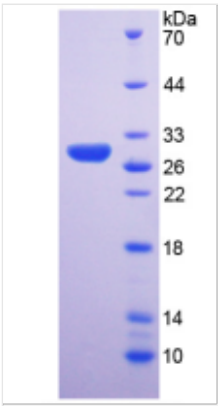


Gene Sequencing
Figure. Gene Sequencing (Extract)

Bioactivity
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 100L 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 50uL 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.



WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for RNASEP active protein	Enzyme & Kinase; Developmental science
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NCBI AND UNIPROT INFORMATION

NCBI GI #	17389705
NCBI GeneID	10799
UniProt Accession #	O75818
Molecular Weight	Predicted Molecular Mass: 27.7kDa Accurate Molecular Mass: 28kDa
NCBI Official Full Name	RPP40 protein
NCBI Official Synonym Full Names	ribonuclease P/MRP subunit p40

NCBI Official Symbol	RPP40
NCBI Official Synonym Symbols	RNASEP1; bA428J1.3
NCBI Protein Information	ribonuclease P protein subunit p40
UniProt Protein Name	Ribonuclease P protein subunit p40
UniProt Gene Name	RPP40
UniProt Synonym Gene Names	RNASEP1; RNaseP protein p40
UniProt Entry Name	RPP40_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rnasep-active-protein/ribonuclease-p/150082>