

## Rat RPP40 protein, His tag

Cat. No. GTX00344-pro

**Applications** Functional Assay**Species** Rat**Package**

10 µg

## Applications

## Application Note

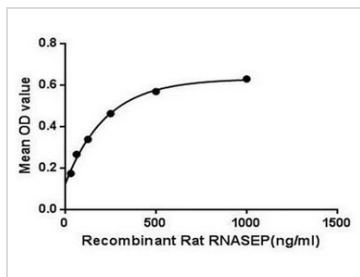
Ribonuclease P is a site specific endonuclease that generates mature tRNAs by catalysing the removal of the 5'-leader sequence from pre-tRNA to produce the mature 5'-terminus. It can also cleave other RNA substrates such as 4.5S RNA. In bacteria, RNase P consists of two components: a large RNA (about 400 base pairs) encoded by *rnpB*, and a small protein (119 to 133 amino acids) encoded by *rnpA*. The RNA moiety of RNase P carries the catalytic activity; the protein component plays an auxiliary, but essential, role in vivo by binding to the 5'-leader sequence and broadening the substrate specificity of the ribozyme. The sequence of *rnpA* is not highly conserved, however there is, in the central part of the protein, a conserved basic region. Besides, Nucleophosmin (NPM) has been identified as an interactor of RNASEP, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat RNASEP and recombinant rat NPM. Briefly, RNASEP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to NPM-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 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of of RNASEP and NPM was in a dose dependent manner.

**Observed MW (kDa)** 23 kDa.

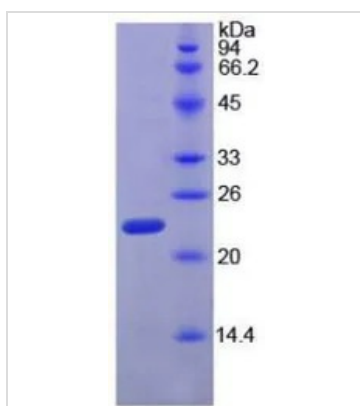
## Properties

**Form** Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Met91~Asp259 (NP\_001013073.1)**Expression System** E. coli**Purity** > 97%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

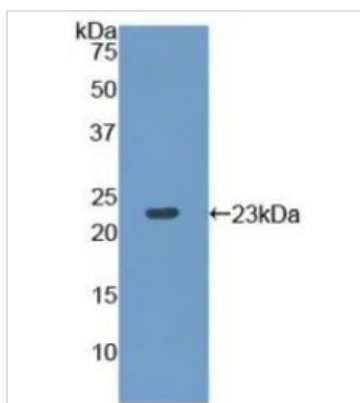
For full product information, images and publications, please visit our [website](#).

**DATA IMAGES**

**GTx00344-pro Functional Assay Image**

Functional ELISA analysis of GTx00344-pro Rat RPP40 protein which can bind immobilized NPM protein.


**GTx00344-pro Image**

SDS-PAGE analysis of GTx00344-pro Rat RPP40 protein.


**GTx00344-pro Image**

WB analysis of GTx00344-pro Rat RPP40 protein.



For full product information, images and publications, please visit our [website](https://www.genetex.com).