Active Recombinant Rat Rpp40 protein, His-tagged

Cat. No. Rpp40-186R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Rpp40 protein(Q5BK64)(91~259 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	91-259 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	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 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

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	were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL 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 50µ stop solution to the wells and read at 450nm immediately. The binding activity of of RNASEP and NPM was shown, and this effect was in a dose dependent manner.
Molecular Mass	23.0kDa
Purity	> 97% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Rpp40 ribonuclease P 40 subunit (human) [Rattus norvegicus]
Official Symbol	Rpp40
Synonyms	RPP40; ribonuclease P 40 subunit (human); ribonuclease P protein subunit p40; RNaseP protein p40; MGC108849;
Gene ID	291071
mRNA Refseq	NM_001013055

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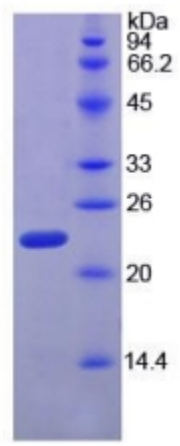
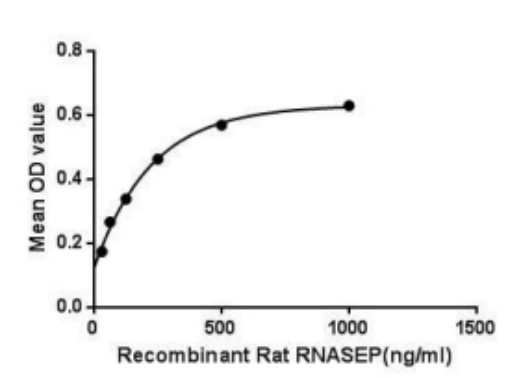
Protein Refseq	NP_001013073
SDS-PAGE	
Activity	

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