

## Active Recombinant Human RPP40 protein, His-tagged

**Cat. No.** RPP40-2663H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Human RPP40 protein(O75818)(49~258 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 49-258 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Form</b>             | Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Bio-activity</b>     | 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°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 |

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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 RNASEP and MECP2 was shown, and this effect was in a dose dependent manner.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 27.7kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1μg (determined by the LAL method).                                                             |
| <b>Purity</b>         | > 90% as determined by SDS-PAGE.                                                                           |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.          |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | RPP40 ribonuclease P/MRP 40kDa subunit [ Homo sapiens ]                                                                                                                                                                                                                                              |
| <b>Official Symbol</b> | RPP40                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>        | RPP40; ribonuclease P/MRP 40kDa subunit; ribonuclease P 40kDa subunit, ribonuclease P1, RNASEP1; ribonuclease P protein subunit p40; bA428J1.3; ribonuclease P1; RNase P subunit 1; RNaseP protein p40; ribonuclease P (40 kD); ribonuclease P 40kDa subunit; ribonuclease P, 40kD subunit; RNASEP1; |
| <b>Gene ID</b>         | 10799                                                                                                                                                                                                                                                                                                |
| <b>mRNA Refseq</b>     | NM_006638                                                                                                                                                                                                                                                                                            |

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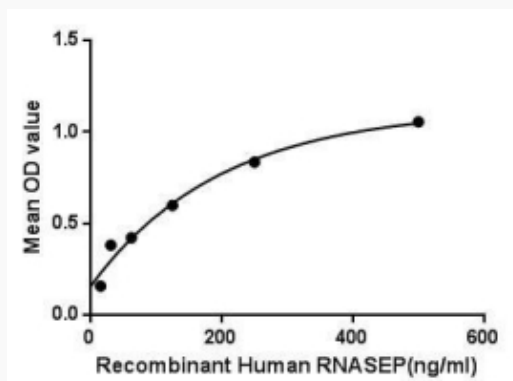
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**Protein Refseq** NP\_006629

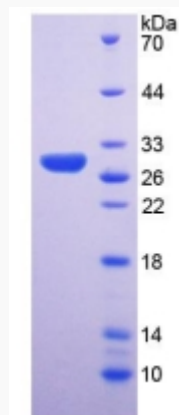
**MIM** 606117

**UniProt ID** O75818

**Activity**



**SDS-PAGE**



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