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Product Datasheet

Rat RPP40 protein, His tag, Unconjugated GTX00344-PRO

Article Name	Rat RPP40 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00344-PRO
Supplier Catalog Number	GTX00344-pro
Alternative Catalog Number	GTX00344-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Rat
Conjugation	Unconjugated
NCBI	291071
UniProt	Q5BK64
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, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Met91~Asp259 (NP_001013073.1)

Application Notes

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 37C. 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 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of RNASEP and NPM was in a dose dependent manner.