



## RNA pyrophosphohydrolase Recombinant Protein

CATALOG NUMBER: 92-618

### Specifications

<b>SPECIES:</b>	E. coli
<b>SOURCE SPECIES:</b>	E. coli
<b>SEQUENCE:</b>	Met1-Gly176
<b>FUSION TAG:</b>	Tag Free
<b>TESTED APPLICATIONS:</b>	
<b>APPLICATIONS:</b>	This recombinant protein can be used for biological assays. For research use only.

### Properties

<b>PURITY:</b>	Greater than 95% as determined by reducing SDS-PAGE. Endotoxin level less than 0.1 ng/ug (1 IEU/ug) as determined by LAL test.
<b>PREDICTED MOLECULAR WEIGHT:</b>	20.8 kD
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	Supplied as a 0.2 um filtered solution of 50mM Tris, 500mM NaCl, 10% glycerol, pH8.0. It is not recommended to reconstitute to a concentration less than 100 ug/ml. Dissolve the lyophilized protein in ddH2O.
<b>STORAGE CONDITIONS:</b>	Store at -20°C, stable for 6 months after receipt. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

### Additional Info

<b>ALTERNATE NAMES:</b>	RNA pyrophosphohydrolase, (Di)nucleoside polyphosphate hydrolase, Ap5A pyrophosphatase, rppH
<b>ACCESSION NO.:</b>	P0A776

### Background

Messenger RNA (mRNA) degradation plays a key role in the control of gene expression in all organisms by limiting the number of times that each mRNA molecule can be used as a template for protein synthesis. RNA pyrophosphohydrolase, also called RppH, is a master regulator of 5'-dependent mRNA decay. It accelerates the degradation of transcripts by removing pyrophosphate from the 5'-end of triphosphorylated RNA, leading to a more labile monophosphorylated state that can stimulate subsequent ribonuclease cleavage. RppH preferentially hydrolyzes diadenosine penta-phosphate with ATP as one of the reaction products, and can be able to hydrolyze diadenosine hexa- and tetra-phosphate. However, this protein has no activity on diadenosine tri-phosphate, ADP-ribose, NADH and UDP-glucose. In the meningitis causing strain E. coli K1, it has been shown to play a role in HBMEC (human brain microvascular endothelial cells) invasion in vitro.

**FOR RESEARCH USE ONLY**

December 14, 2016