Creative Enzymes®

Polynucleotide Phosphorylase from Escherichia coli, Recombinant

Cat. No. NATE-0608

Lot. No. (See product label)

Introduction

Description	Polynucleotide phosphorylase (PNPase) is a bifunctional enzyme with a phosphorolytic 3' to 5' exoribonuclease activity and a 3'-terminal oligonucleotide polymerase activity. It is also involved in mRNA processing and degradation in bacteria, plants, and humans.
Applications	Polynucleotide phosphorylase (PNP) has been used in a study to show that spontaneous mutations resulting from replication errors are reduced in a PNP-deficient strain. It has also been used in a study to show that the absence of PNPase makes E. coli cells sensitive to UV, which suggests PNP has a role in survival of UV damage.
Synonyms	PNPase; nucleoside diphosphate:polynucleotidyl transferase; polyribonucleotide nucleotidyltransferase; polynucleotide phosphorylase; polyribonucleotide phosphorylase; EC 2.7.7.8; 9014-12-4

Product Information

Species	Escherichia coli
Source	E. coli
Form	Supplied as a solution in 20 mM Hepes buffer pH 7.9, 0.1 mM EDTA, 2 mM DTT, 12.5 mM $MgCl_2$, 200 mM KCl, 21.4% (w/v) Glycerol
EC Number	EC 2.7.7.8
CAS No.	9014-12-4
Unit Definition	One unit will polymerize 1.0 µmole of ADP releasing 1.0 µmole of inorganic phosphate in 15 minutes, at pH 9.1 at 37°C.

Storage and Shipping Information

Storage	−70°C