Creative Enzymes®

Native T4-infected Escherichia coli Polynucleotide Kinase

Cat. No. NATE-0605

Lot. No. (See product label)

Introduction

Description Polynucleotide kinase catalyses a "forward reaction" transfer of the γ-phosphate of ATP to the 5' hydroxyl terminus of single-and double-stranded nucleic acids (DNA and RNA) and 3'-nucleoside monophosphates. In exchange reactions containing ADP, the enzyme will catalyze the exchange of 5'-terminal phosphate groups and ATP. The 3'-phosphatase activity enables the enzyme to remove 3'-phosphoryl groups from phosphorylpolynucleotides.

Applications Suitable for: • Sequencing or nucleic acid tagging (DNA and RNA) by 5′-end labeling • 5′ phosphorylation of oligonucleotides • Removal of 3′-phosphate groups from phosphorylpolynucleotides

Synonyms polynucleotide 5'-hydroxyl-kinase; EC 2.7.1.78; 37211-65-7; ATP:5'-dephosphopolynucleotide 5'-phosphatase; PNK; polynucleotide 5'-hydroxyl kinase (phosphorylating); 5'-hydroxyl polynucleotide kinase; 5'-hydroxyl polyribonucleotide kinase; 5'-hydroxyl RNA kinase; DNA 5'-hydroxyl kinase; DNA kinase; polynucleotide kinase; polynucleotide 5'-hydroxy-kinase

Product Information

Source T4-infected Escherichia coli

Form buffered aqueous glycerol solution

EC Number EC 2.7.1.78

CAS No. 37211-65-7

Molecular Weight mol wt 33 kDa

Activity 10 units/μL

Concentration 10 units/μL

Unit Definition One unit catalyzes the transfer of one nanomole of 32P to the 5'-end of micrococcal nuclease-treated DNA in 30 min. at 37°C. Transfer is detected as incorporation into acid-insoluble material.

Storage and Shipping Information

Storage −20°C