

Datasheet for ABIN3188238
T4 Polynucleotide Kinase

Overview

Quantity: 1000 U

Product Details

Characteristics: T4 Polynucleotide Kinase catalyzes the transfer of the γ -phosphate from ATP to the 5'-hydroxyl terminus of double and single-stranded RNA and DNA, oligonucleotides or nucleoside 3'-monophosphates. The enzyme is also capable of catalyzing the removal of 3'-phosphoryl groups from 3'-phosphoryl polynucleotides, deoxynucleoside 3'-monophosphates and deoxynucleoside 3'-diphosphates.

Components: Enzyme supplied with 10X Reaction Buffer

Unit Definition: One unit is defined as the amount of T4 Polynucleotide Kinase that catalyzes the incorporation of 1 nmol γ -phosphate from ATP to the 5'-hydroxyl termini of micrococcal nuclease-treated DNA in 30 minutes at 37°C in 1X T4 Polynucleotide Kinase Reaction Buffer.

Application Details

Comment:

- Labelling 5'termini of DNA or RNA to be used as:
- primers for DNA sequencing
- primers for PCR
- probes for hybridization
- probes for transcript mapping
- markers for gel electrophoresis
- Addition of 5'phosphates to oligonucleotides, PCR products, and DNA or RNA prior to ligation
- Removal of 3'phosphoryl groups

Restrictions: For Research Use only

Handling

Concentration: 10 U/ μ L

Buffer: 10 mM Tris-HCl (pH 7.5), 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.1 μ M ATP, and 50 % (v/v)

Handling

Glycerol.

Storage: -20 °C

Publications

Product cited in: Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)