# Active Recombinant Bacteriophage T4 Polynucleotide Kinase

**Cat. No.** pseT-58B **Lot. No.** (See product label)

## SPECIFICATION

| | |
|---|---|
| **Product Overview** | Purified from a strain of?E.coli?that expresses the recombinant T4 Polynucleotide Kinase gene. |
| **Species** | Bacteriophage T4 |
| **Source** | E.coli |
| **Description** | T4 Polynucleotide Kinase (PNK) catalyzes the transfer and exchange of the terminal gamma position phosphate of ATP to the 5′-hydroxyl terminus of double-and single-stranded DNA, RNA and nucleoside 3′-monophosphate molecules. T4 PNK also exhibits 3′-phosphatase and 2′, 3′ cyclicphosphodiesterase activities. |
| **Bio-activity** | 133,333 U/mg |
| **Molecular Mass** | 34,620 Daltons |
| **Purity** | >99% by SDS-PAGE |
| **Unit Definition** | 1 unit is defined as the amount of enzyme catalyzing the incorporation of 1 nmol of [32P] (ATP donor) in 30 minutes at 37°C in 1X T4 Polynucleotide Kinase Reaction Buffer. |
| **Storage** | -25 to -15°C |
| **Concentration** | 10,000 U/m |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

| | |
|---|---|
| **Storage Buffer** | Supplied in: 10mM Tris-HCL, 50 mM KCl, 0.1 μM ATP, 1mM DTT, 0.1mM EDTA, 50% glycerol pH 7.4 @ 25?C. Supplied with: 10X T4 Polynucleotide Kinase Buffer: 700mM Tris-HCl, 100mM MgCl2, 50mM DTT pH 7.6 @ 25?C. |

## GENE INFORMATION

| | |
|---|---|
| **Gene Name** | pseT?polynucleotide kinase [?Enterobacteria phage T4?] |
| **Official Symbol** | pseT |
| **Synonyms** | pseT; polynucleotide kinase; NP_049834.1; 5''-hydroxyl kinase, a 3''-phosphatase and a 2'',3''-cyclic phosphodiesterase; catalyzes the transfer of the terminal phosphate of ATP to the 5''-hydroxyl termini of ribo- and deoxyribonucleotides; in the presence of ADP the enzyme also catalyzes the exchange of the 5'' terminal phosphate from phosphorylated DNA to ADP; these activities modify the ends of nicked tRNA generated by a bacterial response to infection and facilitate repair by T4 RNA ligase |
| **Gene ID** | 1258796 |
| **Protein Refseq** | NP_049834 |
| **UniProt ID** | 2IA5_D |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA