



COSMO BIO Co., LTD.
Inspiration for Life Science

T4 Polynucleotide Kinase

Code No. PNK-111

Lot No. *****

Storage Store at -20°C

Size 1,500units

Source	:	<i>Escherichia coli</i> JM109 which is carrying T4 pse T gene.
Reaction	:	(γ - ³² P)-ATP + 5'-OH-polynucleotide → ADP + (5'- ³² P)polynucleotide
Concentration	:	*** units/μl
Unit Definition	:	One unit is the amount of enzyme activity that incorporates 1 nmole of (γ - ³² P)-ATP into micrococcal nuclease-treated calf thymus DNA in 30 minutes at 37°C.
Assay Condition	:	50 mM Tris-HCl(pH7.6) 100 μM (γ - ³² P)-ATP 10 mM MgCl ₂ 10 mM 2-mercaptoethanol 0.2 mg/ml micrococcal nuclease-treated calf thymus DNA
Storage Buffer	:	50 mM Tris-HCl(pH7.5) 1 mM DTT 0.1 mM EDTA 50 mM KCl 0.1 μM ATP 50 % Glycerol
10 × protruding end kinase buffer	:	0.5 M Tris-HCl(pH8.0) 0.1 M MgCl ₂ 50 mM DTT
10 × blunt end or recessed end kinase buffer	:	0.5 M Tris-HCl(pH9.5) 0.1 M MgCl ₂ 50 mM DTT
Denaturation Buffer	:	20 mM Tris-HCl(pH9.5) 1 mM Spermidine 0.1 mM EDTA
Contaminant Assay		
1. Nonspecific Endonuclease	:	When 10 units of enzyme were incubated with 1 μg of <i>Hind</i> III digest of λ-DNA for 20 hours at 37°C in 50 μl reaction volume, no degradation of the DNA fragments is observed after agarose gel electrophoresis.
2. Nonspecific Exonuclease	:	30 units of enzyme, when incubated with 1 μg of <i>E. coli</i> ³ H-DNA for 4 hours at 37°C in 50 μl reaction volume, will release less than 0.01 % acid soluble counts.
3. Nicking Activity	:	After incubation of 1 μg of ΦX174DNA(RFI) with 25 units of this enzyme for 4 hours at 37°C in 50 μl reaction volume, the supercoiled structure is observed after agarose gel electrophoresis.



COSMO BIO Co., LTD.

Inspiration for Life Science

TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME, KOTO-KU, TOKYO 135-0016 JAPAN
TEL: (81)3-5632-9617 / FAX: (81)3-5632-9618 / e-mail: export@cosmobio.co.jp / URL: www.cosmobio.com