COSMO BIO CO., LTD.
Inspiration for Life Science

T4 Polynucleotide Kinase

Code No. PNK-111

Lot No. ******

Storage Store at −20℃

Size 1,500units

Source : *Escherichia coli* 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℃.

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	$MgC1_2$
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 1μg of *Hin*dⅢdigest of λ-DNA for 20 hours at 37℃ 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 *E. coli* ^{3}H-DNA for 4 hours at 37℃ 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℃ 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