Storage Conditions (−20 °C)
Shipping Conditions (−20 °C)

TOYOBO
Ideas & Chemistry

Klenow Fragment
(DNA polymerase I , Large fragment)

Code No. PLA−111

Lot No. ******

Size 400units

Source : *Escherichia coli* carrying the plasmid that encodes the gene of Klenow Fragment.

Reaction : DNA_{OH} + ndNTP → DNA−$(pdN)_n$ + nPPi

Concentration : ＊＊＊ units/μL

Unit Definition : One unit is the amount of enzyme activity that incorporates 10 nmoles of total nucleotides into acid precipitable form in 30 minutes at 37°C.

Assay Condition :

67	mM	KPO_4(pH7.4)
6.7	mM	$MgCl_2$
1.0	mM	2−mercaptoethanol
60	μM	d(A−T)copolymer
33	μM	dATP
33	μM	[^{3}H]−dTTP

Storage Buffer :

50	mM	KPO_4(pH7.0)
0.25	mM	DTT
50	%	Glycerol

10×Klenow fragment of DNA polymerase I Buffer :

0.5	M	Tris−HCl(pH7.4)
0.1	M	$MgCl_2$
1	mM	DTT
500	μg/mL	bovine serum albumin

Contaminant Assay

1. Nicking Activity : When 10 units of this enzyme were incubated with 1 μg of ΦX 174 DNA(RFI) for 4 hours at 37°C, no relaxing of the supercoiled structure is observed after agarose gel electrophoresis .

2. Exonuclease : When 1μg of 5'−^{32}P−labeled λ DNA−*Hin*dIII digest was incubated with this enzyme at 37°C, the radioactivity released to the acid−soluble fraction per unit for an hour was less than 0.1%.

information

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