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

TOYOBO
Ideas & Chemistry

T4 DNA Ligase

Code No. LGA−111

Lot No. ******

Size 400units

Source	:	*Escherichia coli* lysogenic for NM989
Reaction	:	ATP + $(dNMP)_n$ + $(dNMP)_m$ → AMP + PPi + $(dNMP)_{n+m}$
Concentration	:	＊＊＊ units/μL
Unit Definition	:	One unit is the amount of enzyme activity that catalyzes the conversion of 1 nmole of ^{32}PPi into a Norit absorbable form in 20 minutes at 37℃.

Assay Condition :

66	mM	Tris−HCl(pH7.6)
6.6	mM	$MgCl_2$
10	mM	DTT
66	μM	ATP
3.3	μM	(^{32}P) $Na_4P_2O_7$

Storage Buffer :

20	mM	Tris−HCl(pH7.6)
1	mM	EDTA
5	mM	DTT
60	mM	KCl
50	%	Glycerol

10×Ligation Buffer :

660	mM	Tris−HCl(pH7.6)
66	mM	$MgCl_2$
100	mM	DTT
660	μM	ATP＊

＊ ATP is not included in the attached buffer .

Contaminant Assay

1. Nonspecific Nuclease : When 12.5 units of enzyme were incubated with 1μg of λ DNA−*Hin*dⅢ digest for 16 hours at 16℃ in 50 μL reaction volume , no degradation of the DNA fragments is observed after agarose gel electrophoresis.

2. Nonspecific Exonuclease : When 1μg of *E. coli* ^{3}H−DNA was incubated with this enzyme at 16℃, the radioactivity released to the acid−soluble fraction per unit for an hour was less than 0.01%.

3. 5 '−Phosphatase : When 1μg of 5'−^{32}P−labeled λ DNA−*Hin*dⅢ digest was incubated with this enzyme at 16℃, the radioactivity released to the acid−soluble fraction per unit for an hour was less than 0.01%.

4. Nicking Activity : When 12.5 units of enzyme were incubated with 1μg of ΦX174 DNA(RFI) for 16 hours at 16℃ in 50 μL reaction volume , no relaxing of the supercoil structure is observed after agarose gel electrophoresis.

information

TOYOBO CO., LTD.
Life Science Department

2-8, Dojima Hama 2-chome, Kita-ku, Osaka, 530-8230, Japan
TEL : 06-6348-3786 FAX : 06-6348-3833
Technical Service : 06-6348-3888
【URL】 http://lifescience.toyobo.co.jp/