



DTI High Conc. T4 DNA Ligase (2000 U/ μ l)



Instruction Manual for use

User Manual for DTI High conc. T4 DNA Ligase 2000 U/ μ l

Catalogue number: DT1101.40K

1) Product Description:

DTI High conc. T4 DNA Ligase 2000 U/ μ l is derived from Phage T4 DNA. This enzyme catalyzes the formation of phosphodiester bonds between 3'-OH termini and 5'-P termini to join DNA strands. The molecular weight of T4 DNA Ligase is ~62,000 Da. For ligation, the optimal reaction pH is 7.6, and T4 DNA Ligase requires Mg²⁺ and ATP as cofactors. This enzyme can ligate molecules with either cohesive ends or blunt ends

2) Kit Contents:

Component	Qty
DTI High conc. T4 DNA Ligase 2000 U/ μ l	20 μ l
5X Ligation reaction Buffer	1 ml

* Customized pack size available

3) Storage and shipment conditions: -20°C**4) Storage buffer:**

Tris-HCl (pH 7.5)	10 mM
KCl	50 mM
EDTA	0.1 mM
DTT	1 mM
Glycerol	50%

5) Composition of supplied buffer

5X Ligation reaction Buffer

330 mM	Tris-HCl, pH 7.6
50 mM	MgCl ₂
5 mM	DTT
5 mM	ATP
37.5%	PEG#6000

6) Source:

Escherichia coli carrying the plasmid that encodes the gene of T4 DNA ligase.

7) Unit definition:

One unit is the amount of enzyme that ligates more than 90% of 6 μ g of λ DNA-Hind III fragments in a 20 μ l mixture in 30 minutes at 16°C. One unit of this enzyme corresponds to 0.008 Weiss units by the ATP-PPi exchange reaction¹) in 66 mM Tris-HCl, pH7.6 that contains 6.6 mM MgCl₂, 10 mM DTT, 66 μ M ATP, and 3.3 μ M [32P]-Na₄P₂O₇.

8) Quality Control data:

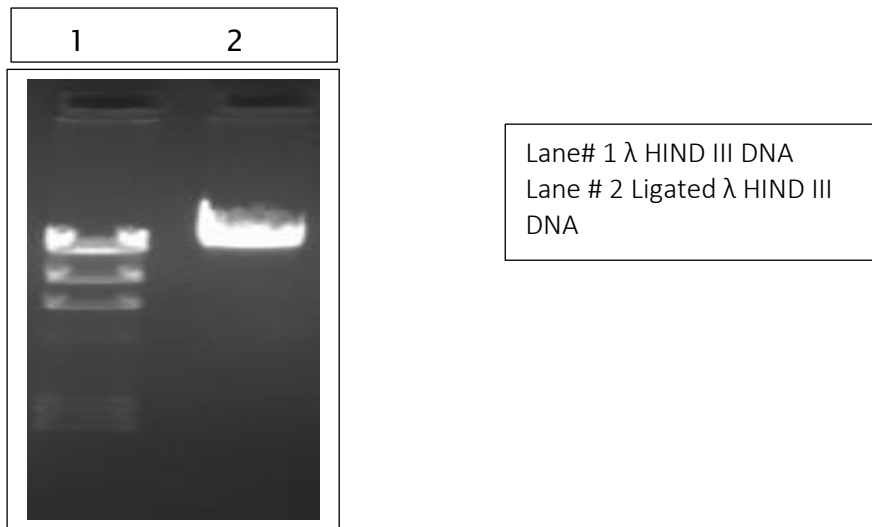
Please see the certificate of analysis of each lot

9) Application:

- i) Insertion of a DNA fragment into a vector
- ii) Linker or adaptor ligation to a DNA fragment

10) Experimental sample:

Efficient ligation of λ HIND III DNA obtained using the enzyme and buffer. Band of 2027 bp was clearly identified by agarose gel electrophoresis. Below is the image of the same.



Visit <https://dsstakarabio.com/pages/dti-high-conc-t4-dna-ligase-2000-u> for more detailed product information.




For more information contact directly below;

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Toll-Free number 1800-212-4922

Description of Symbol Used:

- REF** Catalogue number
- LOT** Batch Code
-  Date of Manufacturing
-  Use-by-date
-  Contains sufficient for <n> tests

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