



## Certificate of Analysis

**Product Name/Description:** DTI High conc. T4 DNA Ligase 2000 U/ $\mu$ l

**Cat#:** DT1101.40K

**Lot#:** Specified on product label

**Storage conditions:** -20°C

**Expiry:** Specified on product label

**Pack size:** 40K Units

**Package contents:**

Component	Conc	Pack size
DTI High conc. T4 DNA Ligase 2000 U/ $\mu$ l	2000 U/ $\mu$ l	40K Units
5X Ligation reaction Buffer	5X	1 ml

**Source:** Escherichia coli carrying the plasmid that encodes the gene of T4 DNA ligase

**Unit definition:**

One unit is the amount of enzyme that ligates more than 90% of 6  $\mu$ g of  $\lambda$ DNA-Hind III fragments in a 20  $\mu$ l mixture in 30 minutes at 16°C. One unit of this enzyme corresponds to 0.008 Weiss units by the ATP-PPi exchange reaction<sup>1</sup>) in 66 mM Tris-HCl, pH7.6 that contains 6.6 mM MgCl<sub>2</sub>, 10 mM DTT, 66  $\mu$ M ATP, and 3.3  $\mu$ M [32P]-Na<sub>4</sub>P<sub>2</sub>O<sub>7</sub>.

**Quality Control data:**

**Nuclease contamination tests:**

Nuclease activity in this product was not detected by agarose gel electrophoresis following each reaction below:

- 1) Incubating 1  $\mu$ g of  $\lambda$ -Hind III digest with 2,000 units of this product for 16 hours at 37°C.
- 2) Incubating 1  $\mu$ g of supercoiled pBR322 DNA with 2,000 units of this product for 16 hours at 37°C.
- 3) Incubating 1  $\mu$ g of 16S, 23S rRNA with 2,000 units of this product for 16 hours at 37°C

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department of DSS Takara Bio India Pvt Ltd.

This document has been produced electronically and is valid without a signature.

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DSS Takara Bio India Pvt. Ltd.  
A-5 Mohan Co-operative Industrial Estate. Mathura Road. New Delhi 110044  
E-Mail: [enquiries@dsstakarabio.com](mailto:enquiries@dsstakarabio.com)  
Toll free #: 1800-212-4922

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