CYCV07-CHANGYU T4 DNA Ligase

Contents	40 KU (CYCV0701)	200 KU (CYCV0702)
T4 DNA Ligase (400 U/μl)	40 KU	200 KU
10× Ligation Buffer	500 μl	500 μl
2× Rapid Ligation Buffer	500 μl	2.5 ml

Note: Store and transport at -20 °C. Storage stability: 12 months.

Description

T4 DNA Ligase is purified from *E. coli* expressing the T4 DNA ligase gene after induction. It catalyzes the formation of a phosphodiester bond between adjacent 5'-phosphate and 3'-hydroxyl termini of DNA strands. The enzyme joins blunt-end or sticky-end DNA and repairs single-strand nicks in double-stranded DNA, RNA and DNA/RNA hybrids.

Applications

1. Ligation of DNA fragments to vector DNA.
2. Ligation of DNA fragments to linkers or adaptors.

Standard Ligation (10 μl reaction)

ddH_2O	to 10 μl
10× Ligation Buffer	1 μl
Vector DNA	10-100 ng
Insert DNA fragment	3× the molar amount of vector
T4 DNA Ligase (400 U/μl)	1 μl

Incubate at 16 °C for 1-5 hours or overnight. A longer incubation is recommended for blunt-end ligation.

Rapid Ligation (20 μl reaction)

ddH_2O	to 20 μl
2× Rapid Ligation Buffer	10 μl
Vector DNA	10-100 ng
Insert DNA fragment	3× the molar amount of vector
T4 DNA Ligase (400 U/μl)	2 μl

Incubate at 25-30 °C for 5-10 minutes.

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.