

T4 DNA Ligase

Catalog No.: 41001**Product Name:** T4 DNA Ligase**Description**

T4 DNA Ligase catalyzes the phosphodiester bond formation between 5'-phosphate and the 3'-hydroxyl group in either a cohesive-ended or blunt-ended configuration. The enzyme also catalyzes the joining of RNA-RNA or RNA-DNA hybrids, but will not join single-stranded nucleic acids.

Unit definition

One unit of enzyme catalyzes 50% ligation of Hind III fragments of λ DNA in 30 minutes at 16°C in 1X Ligation Buffer.

Concentration100 U/ μ L**Package size**

5 KU/set

Storage

-20°C

Storage buffer

50 mM KCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM DTT, 200 μ g/mL BSA and 50% glycerol.

Recommended Reaction Conditions:

1) Assemble the following reaction in a sterile PCR tube:

vector DNA	100 ng
insert DNA	X ng
10X Ligation Buffer	1 μ L
T4 DNA Ligase	1 μ L
Nuclease-Free Water (DEPC ddH ₂ O)	to 10 μ L

2) Incubate the reaction at room temperature for 3 hours, or 16°C for 4-18 hours, or 4°C overnight.

Note: A 1:1, 1:3 or 3:1 molar ratio of vector:insert DNA is recommended.

For research use only.

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