

T4 DNA Ligase

Code No. 311-00404 (Size: 50,000 units)

Code No. 317-00406 (Size: 50,000 units x 5)

Introductions:

T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5' phosphate and 3' hydroxyl termini in duplex DNA.

Product Component	Quantity	Storage
T4 DNA Ligase	50,000 units x 1	-20°C
10X Ligation Buffer	1 ml x 1	-20°C

Concentration: 500 units (300 – 3,000 units/μl, it depends on the lot.)

Storage:

-20°C

Product Source:

Escherichia coli lysogen for λ T4-*lig* phage

Unit definition:

One unit is the amount of enzyme that ligates more than 95% of 6 μg of λDNA-Hind III fragments in a 20 μl mixture in 60 minutes at 16°C.

Storage Buffer

10 mM Tris-HCl (pH 7.5)

1 mM DTT

50 mM KCl

0.1 mM EDTA

50% Glycerol

Reaction Conditions:

1X Ligation Buffer

Incubate at 16°C

1X Ligation Buffer

50 mM Tris-HCl (pH 7.9)

10 mM MgCl₂

20 mM DTT

1 mM ATP

Composition of Supplied Reaction Buffer:

10X Ligation Buffer

500 mM Tris-HCl (pH 7.9)

100 mM MgCl₂

200 mM DTT

10 mM ATP

References:

- Weiss, B., Jacquemin-Sablon, A., Live, T. R., Fareed, G. C. and Richardson, C. C. (1968) *J. Biol. Chem.*, **243**, 4543
- Murray, N. E., Bruce, S. A. and Murray, K. (1979) *J. Mol. Biol.*, **132**, 493

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T4 DNA Ligase (HP1808-en2404)