

## T4 DNA Ligase

Cat No. 110341

### DATA-SHEET

T4 DNA ligase catalyzes the formation of a phosphodiester bonds between 5' phosphate and 3' hydroxyl termini in duplex DNA/RNA. This enzyme can join blunt end and cohesive end termini as well as repair single stranded nicks in duplex DNA, RNA, or DNA/RNA hybrid. T4 DNA ligase is isolated from a recombinant *E.coli* strains.

**UNIT DEFINITION** : One unit is defined as the amount of enzyme required to give 50% ligation of Hind III fragments of Lambda DNA 30 minute at 16°C at 5' termini concentration of 0.12µ M.

**STORAGE BUFFER** : 50 mM KCl, 10mM Tris-HCl (pH 7.4), 0.1mM EDTA, 1mM DTT, 50% Glycerol.

**CONCENTRATION** : 1 unit/µl

**APPLICATION** : Cloning of restriction fragments, joining linkers and adapters to blunt ended DNA, gene synthesis.

**STORAGE** : Recommended storage is at -20°C.

**Heat Inactivation**: 70°C for 10 minutes.

### CONTENTS OF THE PACK :

100 units of T4 DNA Ligase	100 µl - 1 Vial
10 X Reaction buffer	150 µl - 1 Vial
25 mM MgCl <sub>2</sub>	0.5 ml - 1 Vial
Mol. Grade water	1.5 ml - 1 Vial

Cat. No.	PRODUCT	Pack Size
110341	T4 ligase (with reaction buffer)	100 U
110342	T4 ligase (with reaction buffer)	200 U

**Important Note** : Store the buffer in small aliquots at -20°C to minimize degradation of the ATP and DTT.

**NOTE** : For research use only. Not for use in Diagnostic or therapeutic procedures.

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