

T4 DNA Ligase (Rapid)

Product Information

Cat#	DIA-584
Source	Escherichia coli
Description	T4 DNA ligase catalyzes the formation of phosphodiester bonds between adjacent 5'-phosphate and 3'-hydroxyl termini in double-stranded DNA or RNA. It efficiently ligates both blunt-ended and cohesive-ended fragments and can also repair single-strand nicks in double-stranded DNA, RNA, or DNA/RNA hybrid duplexes.
Unit Definition	One unit is defined as the amount of enzyme required to ligate 50% of HindIII-digested λDNA fragments (100 ng) in a 50 μL reaction containing 1× T4 DNA ligase buffer at 23 °C for 30 minutes.
Storage	-20 °C
Buffer	20 mM Tris-HCl pH 7.4, 50 mM KCl, 0.1 mM EDTA, 1 mM DTT, 50% glycerol
Applications	Catalyzes ligation between blunt or cohesive ends; repairs single-strand nicks in double-stranded DNA, RNA, or DNA/RNA hybrids.
Product Overview	Rapid ligation at room temperature: Efficient ligation of cohesive or blunt ends in 5 minutes. For T/A cloning. Repair of nicks in double-stranded DNA.
Package	600000 U T4 DNA Ligase (Rapid)(600 U/μL): 1 mL 2× Rapid Ligation Buffer (132 mM Tris-HCl pH 7.6 25 °C, 20 mM MgCl ₂ , 2 mM DTT, 2 mM ATP, 15% PEG 6000): 6 mL 10× T4 DNA Ligase Buffer (500 mM Tris-HCl pH 7.6 25 °C, 100 mM MgCl ₂ , 50 mM DTT, 10 mM ATP): 6 mL