

T4 DNA Ligase Recombinant

Item Number	rAP-1252
Synonyms	DNA ligase 4, EC 6.5.1.1, DNA ligase IV, Polydeoxyribonucleotide synthase [ATP] 4.
Description	T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5' -phosphate and 3' -hydroxyl termini in duplex DNA or RNA. This enzyme will join blunt end and cohesive end termini as well as repair single stranded nicks in duplex DNA, RNA or DNA/RNA hybrids.
Uniprot Accession Number	
Amino Acid Sequence	
Source	Escherichia Colilambda lysogen NM 989.
Physical Appearance and Stability	Sterile filtered liquid formulation having a concentration of 167,000 U/ml.
Formulation and Purity	50mM Tris-HCl (pH 7.8 at 25°C), 10mM MgCl ₂ , 10mM DTT, 1mM ATP, 25 µg/ml BSA and DNA (0.1 to 1 µm in 5' termini). Optimal ligation occurs at 16C.
Application	Cloning of restriction fragments. Joining linkers and adapters to blunt-ended DNA.
Solubility	
Biological Activity	One Weiss unit is equivalent to circa 67 cohesive-end ligation units. • T4 DNA Ligase is strongly inhibited by NaCl or KCl if the concentration is > 200mM. • Ligation of blunt-ended and single-base pair overhang fragments requires about 50 times as much
Shipping Format and Condition	Lyophilized powder at room temperature.

Optimal dilutions should be determined by each laboratory for each application. The listed dilutions are for recommendation only and the final conditions should be optimized by the ender users! This product is sold for **Research Use Only**