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# 32-2833: T4 DNA Recombinant Protein

**Alternative Name :** DNA ligase 4,EC 6.5.1.1,DNA ligase IV,Polydeoxyribonucleotide synthase [ATP] 4.

## Description

Source : Escherichia Colilambda lysogen NM 989. 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.

## Product Info

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| **Amount :** | 100000IU |
| **Content :** | 50mM KCl, 10mM Tris-HCl (pH 7.4), 0.1mM EDTA, 1mM DTT, 200 µg/ml BSA and 50% glycerol. |
| **Storage condition :** | 50mM KCl, 10mM Tris-HCl (pH 7.4), 0.1mM EDTA, 1mM DTT, 200 µg/ml BSA and 50% glycerol. Store at -20C. 50mM KCl, 10mM Tris-HCl (pH 7.4), 0.1mM EDTA, 1mM DTT, 200 µg/ml BSA and 50% glycerol. Store at -20C. |

## Application Note

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 enzyme to achieve the same extent of ligation as cohesive-end DNA fragments. Blunt-end ligation may be enhanced by addition of PEG 4000 (10% w/v final concentration) or hexamine chloride, or by reducing the ATP concentration to 50µM.• To dilute T4 DNA Ligase that will subsequently be stored at –20°C, 50% glycerol storage buffer should be used; to dilute for immediate use, 1x T4 DNA Ligase reaction buffer can be used.