

## 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

**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 :** 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.

