

## PRECISION ENZYMES TO FUEL CUTTING-EDGE APPLICATIONS

**T4 DNA Ligase** catalyzes the formation of a phosphodiester bond between the terminal 5' phosphate and a 3' hydroxyl group of duplex DNA, RNA, or DNA/RNA hybrids. This enzyme joins blunt and cohesive (sticky) ends, and repairs single-stranded nicks in duplex DNA, RNA, or DNA/RNA hybrids.

### HIGHLIGHTS

- Activity across a **broad range of DNA and RNA inputs** enables a variety of applications
- Supplied with standard or rapid ligation buffers for **simple optimization**
- Reduce material costs with a drop-in solution that delivers equivalent performance at a **differentiated price point**
- Custom formats available, including **high concentration**
- Highly stringent enzyme manufacturing ensures **quality performance across lots**

### SPECIFICATIONS

- Protein Purity Assay:  $\geq 99\%$
- dsDNA Exonuclease Assay\*:  $< 1\%$  released
- ssDNA Exonuclease Assay\*:  $< 1\%$  released
- DNA Contamination Assay (*E. coli*, mammalian, library)\*:  $< 10$  copies
- Phosphatase Contamination Assay\*:  $< 1\%$  released
- Endonuclease: Contamination Assay\*: Not detectable

\*As assessed using 6,000 U per assay

### ADVANTAGES OF PARTNERING WITH WATCHMAKER

- Expedited custom labeling and kitting formats, from bulk to finished goods
- Application-relevant, kit-based lot testing
- ISO13485-compliant Quality Management System
- Flexible terms designed with both start-up and large organizational needs in mind

For research use only. Not for use in diagnostic procedures.

### APPLICATIONS

- Cloning of restriction digestion and PCR products
- Attachment of linkers or adapters to DNA
- Site-directed mutagenesis
- Amplified fragment length polymorphism (AFLP)
- Ligase-mediated RNA detection<sup>1</sup>
- Nick repair
- DNA self-circularization

1. Nilsson, M., et al., RNA-templated DNA ligation for transcript analysis, *Nucleic Acids Res.*, 29, 578 – 581, 2001.

## CUSTOMIZATION MADE EASY

We aim to make the customization process as painless as possible for our OEM partners. We view ourselves as an extension of your team and offer a variety of tailored services.



**Custom fills and formats**  
minimize waste and maximize your efficiency



**Tailored packaging and labeling** — including private label — designed to your unique specifications

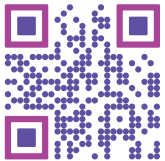


**White glove support** and a dedicated project manager make customization seamless



**Streamlined processes and flexible terms** enable fast turnaround times and serve organizations of all sizes

| DESCRIPTION  | 60 kU        | 300 kU       | 3,000 kU   |
|--|--------------|--------------|------------|
| <b>120 U/μL</b>  |              |              |            |
| T4 DNA Ligase (120 U/μL)   | 7K0042-500UL |              |            |
| T4 DNA Ligase (120 U/μL) with 10X Buffer<br><i>incl. 10X Ligation Buffer</i>                     | 7K0039-500UL |              |            |
| T4 DNA Ligase (120 U/μL) with 5X Rapid Buffer<br><i>incl. 5X Rapid Ligation Buffer (30% PEG)</i> | 7K0040-500UL |              |            |
| T4 DNA Ligase (120 U/μL) with 2X Rapid Buffer<br><i>incl. 2X Rapid Ligation Buffer (15% PEG)</i> | 7K0041-500UL |              |            |
| <b>600 U/μL</b>  |              |              |            |
| T4 DNA Ligase (600 U/μL)*  |              | 7K0027-500UL | 7K0027-5ML |
| T4 DNA Ligase (600 U/μL) with 10X Buffer<br><i>incl. 10X Ligation Buffer</i>                     |              | 7K0026-500UL | 7K0026-5ML |
| T4 DNA Ligase (600 U/μL) with 5X Rapid Buffer<br><i>incl. 5X Rapid Ligation Buffer (30% PEG)</i> |              | 7K0004-500UL | 7K0004-5ML |
| T4 DNA Ligase (600 U/μL) with 2X Rapid Buffer<br><i>incl. 2X Rapid Ligation Buffer (15% PEG)</i> |              | 7K0025-500UL | 7K0025-5ML |



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