

## Hieff™ Gold T4 DNA Ligase, 5 U/μL

### Product Information

Product name	Cat#	Size
Hieff™ Gold T4 DNA Ligase, 5 U/μL	10300ES80	1,000 U
	10300ES97	5 × 10,000 U

### Product Description

Hieff™ Gold T4 DNA Ligase can catalyze the formation of phosphodiester bonds at the 5' phosphate end and 3' hydroxyl end of adjacent nucleic acids at blunt or sticky ends of dsDNA when ATP is used as a coenzyme, and can also catalyze RNA to link with ssDNA or ssRNA in double strands, but cannot catalyze linkages between fully single-stranded nucleotides.

This product is suitable for labeling the 3'-end of RNA, circularizing RNA and DNA oligonucleotides, cloning cDNA, etc.

### Product Components

Component number	Components	Cat#/Size	
		10300ES80 (1,000 U)	10300ES97 (50,000 U)
10300-A	Hieff™ Gold T4 DNA Ligase (5 U/μL)	200 μL	10 mL
10300-B	10×Ligase Buffer	400 μL	20 mL

### Shipping and Storage

The product is shipped with ice packs and can be stored at -20 °C for two years. Please avoid repeated freeze-thaw.

### Unit Definition

One unit(U) was defined as the amount of enzymes required to catalyze more than 50% of the DNA fragments to ligate when 6 μg of λDNA-Hind III degraded product reacted at 16°C for 30 min, in a 20 μL reaction system.

### Quality Control

Detection of exonuclease residues: 10 U of this product and 0.5 μg of λDNA-Hind III were incubated at 37 °C for 4 h, and the electrophoretic bands of DNA did not change.

Detection of nickase residues: 10 U of this product and 0.5 μg of IL23R plasmid were incubated at 37 °C for 4 h, and the electrophoretic bands of DNA did not change.

### Cautions

1. It is normal if there is a small amount of precipitation when dissolving buffer. Please mix it upside down before use.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. This product is for research use ONLY !