



Hieff™ Gold T4 DNA Ligase, 5 U/μL

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.

Components

| Components No. | Name | 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 |

Specifications

| | |
|---------------|---------------|
| Concentration | 5 U/μL |
| Enzyme | Ligase |
| Product Type | T4 DNA Ligase |

Storage

The product should be stored at -25°C~-15°C for two years. Please avoid repeated freeze-thaw.

Instructions

1. Reaction System

| Components | Usage |
|------------------------------------|---|
| Template DNA | 50-100 ng |
| Insert fragment | The molecular molar ratio of the fragment to the carrier should be in the range of 3:1 to 5:1 |
| 10×Ligase Buffer | 2 μL |
| Hieff™ Gold T4 DNA Ligase (5 U/μL) | 1 μL |
| ddH ₂ O | to 20 μL |

[Note]: When the flat-end vector is ligated to the DNA fragment, the vector should be dephosphorylated first to prevent self-ligation. To increase the ligation efficiency, 2 μL of 50% PEG 4000 can be added to each 20 μL reaction system.

2. Enzyme ligation was performed overnight at 16°C



Notes

1. PCR products with 2× Hieff™ PCR Master Mix are not suitable for polyacrylamide gel electrophoresis. Our another product (Cat# 10101) is more suitable for polyacrylamide gel electrophoresis.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. This product is for research use ONLY!