

## Hieff NGS™ Novel DNA Ligation Module for kit

### Product Information

Product Name	Cat#	Specification
Hieff NGS™ Novel DNA Ligation Module for kit	12805ES24	24T
	12805ES96	96T

### Product Description

Hieff NGS™ Novel DNA ligation module for kit is a DNA ligation module designed for Illumina® & MGI® high-throughput sequencing platform. This kit concludes the novel high-efficiency T4 DNA ligase independently developed by Yeasen. Hieff NGS™ Novel DNA ligation module for kit is optimized for use with the Hieff NGS™ Ultima Endprep mix (Cat#12605) or the Hieff NGS™ OnePot Pro DNA Fragmentation Reagent (Cat#12619). All reagent components provided in this product have undergone strict quality and function verification to ensure the excellent performance and inter batch stability of the product to the highest extent.

### Product Component

Components		12805ES24	12805ES96	12805ES98
12805-A	Novel T4 DNA Ligase	120 μL	480 μL	5×1 mL
12805-B	Ligation Enhancer	720 μL	4×720 μL	30 mL

### Shipping and Storage

All the components are shipped with dry ice and can be stored at -20°C for one year.

### Cautions

1. For your safety and health, please wear lab coats and disposable gloves for operation.
2. For research use only!

### Instructions

1. The quality and concentration of adapter directly affect the ligation efficiency and library yield. Table 1 lists the recommended concentration of adapter for different input DNA.

Table 1 recommended adapter concentration for different input DNA

Input DNA	Adapter: Input DNA (molar ratio)	Input DNA	Adapter : Input DNA (molar ratio)
1 μg	10:1	50 ng	100:1
500 ng	20:1	25 ng	200:1
250 ng	40:1	1 ng	200:1
100 ng	100:1	500 pg	400:1

Note: Input DNA (pmol) ≈ Input DNA (ng) / [0.66 × Input DNA (bp)].

2. Add the following components directly to the Endprep reaction mixture, Incubate at 20° C for 15 minutes in a thermocycler with the heated lid off.

Table 2 Adapter Ligation

Components	Volume (μL)
dA-tailed DNA	60
Ligation Enhancer	30*
Novel T4 DNA Ligase	5
DNA Adapter	5**

Note: \*Mix the Ligation enhancer thoroughly by pipetting up and down several times and perform a quick spin to collect all liquid prior to adding to the reaction.

\*\* According to the requirements, the appropriate concentration of the adapter is 15 μM.