

HIFI Library PCR Master Mix

Instruction for Use

【Product Name】

HIFI Library PCR Master Mix

【Cat. No./Spec.】

K007-A (40 rxns); K007-B (400 rxns); K007-C (2000 rxns)

【Product Description】

HIFI Library PCR Master Mix is suitable for PCR amplification of high-throughput sequencing libraries. Contains various components required for PCR reactions (except primers and templates). Using high performance and high fidelity DNA polymerase, special buffer system, efficient amplification while maintaining minimal library bias. The amplification reagent has undergone strict quality control and functional verification to ensure the stability and repeatability of the reagent to the greatest extent.

【Components】

| Component | K007-A (40 rxns) | K007-B (400 rxns) | K007-C (2000 rxns) |
|-----------------------------|------------------|-------------------|--------------------|
| HIFI Library PCR Master Mix | 1 mL × 1 | 10 mL × 1 | 10 mL × 5 |

【Storage Condition & Shelf Life】

Store unopened at -15°C to -25°C until the expiration date on the label. After opening, the master mix may be stored at -15°C to -25°C until the expiration date on the label, or at 4°C for up to 30 days.

【Application】

This product is suitable for PCR amplification of NGS libraries.

【Protocol】

Note: Before setting up the PCR reactions, prepare a primer mix with $20\ \mu\text{M}$ of each primer.

1. Prepare the PCR Reaction Mix

1.1 Allow all reagents to thaw completely. Mix gently by inverting the tube. Spin briefly. Put all reagents

on ice.

1.2 The reaction system is formulated according to the following table:

| Reagents | Volume | Final Conc. |
|------------------------------------|---------------------|--|
| HIFI Library PCR Master Mix (2X) | 25 μL | 1X |
| Primer mix (20 μM each) | 5 μL | 2 μM each primer ⁽¹⁾ |
| Template DNA | X μL | - |
| Nuclease-free water | To 50 μL | n/a |

2. Put the tube into PCR machine for amplification according to the following procedure:

| Step | Time | Temp. ($^{\circ}\text{C}$) |
|-------------|----------|------------------------------|
| Hold | 3 min | 95 |
| 2~20 Cycles | 20 sec | 95 |
| | 15 sec | 60 |
| | 30 sec | 72 |
| Hold | 5 min | 72 |
| Hold | ∞ | 4 |

【Library Preparation Module】

GDSBio offers the following DNA and RNA library construction modules that can be used in combination for high-quality library preparation:

| Module | Product Name | Cat. No./Spec. |
|--|--|-----------------------------------|
| cDNA First Strand Synthesis | GDS RNA First Strand Synthesis Module | K020-A/24 rxns K020-B/96 rxns |
| Directional cDNA Second Strand Synthesis | GDS Directional RNA Second Strand Synthesis Module | K021-A/24 rxns K021-B/96 rxns |
| Non-Directional cDNA Second Strand Synthesis | GDS Non-Directional RNA Second Strand Synthesis Module | K022-A/20 rxns K022-B/100 rxns |
| Fragmentation & End Repair | GDS Fragmentation & End Prep Module | K023-A/24 rxns |

| | | |
|------------------------|--------------------------------|---|
| | | K023-B/96 rxns |
| Fragmentation | GDS dsDNA Fragmentase | K024-A/50 rxns K024-B/250 rxns |
| End Repair/dA-Tailing | GDS End Preparation Module | K025-A/24 rxns K025-B/96 rxns |
| Adapter Ligation | GDS Ligation Module | K026-A/24 rxns K026-B/96 rxns |
| Amplification | HIFI Library PCR Master Mix | K007-A/40 rxns K007-B/400 rxns K007-C/2000 rxns |
| Cleanup/Size Selection | GDSPure DNA Selection Magbeads | NC1011/5 mL NC1012/60 mL NC1013/450 mL |

This product is for research use only.