# xLiBPreP ™ Universal HIFI Amplification KIT （for MGI-SI）

## Component

**CatLog：HC017　　Specification：24rxns / 96 rxns**

| Component | 24 rxns（HC017-024） | 96 rxns（HC017-096） |
|---|---|---|
| ● 2×HiFi Master Mix | 600 μL | 2.4 mL |

## Storage and Delivery

-30 ～ -15 ℃ storage，≤ 0 ℃ Delivery.

## Introduction

xLiBPreP™ Universal HIFI Amplification Kit is suitable for PCR amplification reactions of DNA library for MGI-SI sequencing platform, it has the advantages of high fidelity and no base bias, and can realize highly uniformity library amplification, which significantly improves the sequencing quality of library. The product has undergone strict quality control and performance verification to maximize the stability and reproducibility of library construction.

## Scope of application

This product is only suitable for second generation sequencing DNA library construction and hybridization library amplification, please do not use it for other amplification experiments.

# Notice

**Be sure to read this precaution before using this kit.**

1. Before starting the experiment, please clean the operating table to ensure that there is no nuclease and DNA contamination.

2. Use nuclease-free pipette tips and centrifuge tubes for the experiment.

3. Before amplification, make sure the PCR instrument has been adjusted and is in a stable state.

4. Avoid cross contamination between nucleic acid samples and products during the operation.

5. For special DNA library, such as low-quality library and long fragment library, adjust the annealing temperature, extension time and the number of amplification cycles according to the instructions in the reaction program to obtain the best amplification effect.

## 1.1 Operation Step

**1.1.1** Dissolve all components on ice or at 4°C, mix briefly, perform subsequent operations on ice, and store at -20°C after use.

| Component | Volume (μL) |
|---|---|
| DNA templates* | 20 |
| ● 2× HiFi Master Mix | 25 |
| ○ PCR Primer Mix ** | 5 |
| **Total Volume** | **50** |

* The DNA template here refers to DNA purified from magnetic beads.

* * The primers here belong to the library primers used in MGI-SI sequencing platform, for non-MGI-SI sequencing platform, you need to replace the library amplification primers according to the sequencing platform.

**1.1.2** Set up the PCR instrument reaction program according to the table below, with the hot lid temperature set at 105 °C.

| Step | Temp (℃) | Duration | Cycles |
|---|---|---|---|
| Initial denaturation | 98 | 1 min | 1 |
| Denaturation | 98 | 10 sec | 6 ~ 17 * |
| Annealing* | 60 | 30 sec | |
| Extension | 72 | 30 sec | |
| Final extension | 72 | 5 min | 1 |
| Hold | 4 | ∞ | 1 |

* Optimization of the annealing temperature may be required for nonstandard adapter/primer combinations.

* PCR Cycles Reference：

| DNA template INPUT(ng) | PCR Recommend Cycles |
|---|---|
| 1 | 15 ~ 17 |
| 10 | 12 ~ 14 |
| 25 | 10 ~ 11 |
| 50 | 9 ~ 10 |
| 100 | 7 ~ 9 |
| 200 | 6 ~ 8 |