2x Super Hi-Fi Taq PCR MasterMix

Cat. no. KTT-BB05

Product Size

Components	KTT-BB05
2× Super Hi-Fi Taq PCR MasterMix	1 mL
Loading dye in MasterMix	Yes

Storage: For long term storage, store at −20 °C; 2× Super Hi-Fi Taq PCR MasterMix retains full activity after repeated freezing and thawing. For regular use, store at 4 °C.

Introduction

2× Super Hi-Fi Taq PCR MasterMix is a 2× concentrated, optimized mixture composed of a Super Hi-Fi Taq DNA polymerase, dNTPs, $MgCl_2$, a reaction buffer, a PCR reaction enhancer, an optimizer, and a stabilizer. The advantages of 2× Super Hi-Fi Taq PCR MasterMix include high convenience, sensitivity, specificity, and stability. Its use minimizes human errors during the PCR operating process. 2× Super Hi-Fi Taq PCR MasterMix is suitable for routine PCR reaction and for amplification of complex templates such as GC-rich templates (> 60%) and templates with a secondary structure.

Product Components (2×)

0.1 U/μl Super Hi-Fi Taq DNA polymerase

500 μM dNTP each

20 mM Tris-HCl (pH8.3)

100 mM KCl

3 mM $MgCl_2$

Stabilizer and enhancer for the storage buffer:

Description

2× Super Hi-Fi Taq PCR MasterMix is designed for quick and easy preparation of reaction mixture, which minimizes contamination during the PCR operating process. For PCR reaction setup, users only need to pipet an aliquot part of 2× Super Hi-Fi Taq PCR MasterMix and dilute the MasterMix to 1× by adding templates, primers, and water up to the reaction volume. PCR products produced using MasterMix with loading dye can be loaded directly without additional loading buffer.

Applications

- Gene detection: 2× Super Hi-Fi Taq PCR MasterMix is especially suitable for large-scale gene detection, semi-quantitative PCR, detection of small amounts of DNA, etc.
- Amplification of DNA with high fidelity and amplification from complex templates such as GC-rich

templates (>60%) and templates with a complex secondary structure: Some of the PCR products generated using the enzyme of 2×Super Hi-Fi Taq PCR MasterMix have a poly-A tail. To obtain high cloning efficiency, adding A reaction is recommended before T-A cloning.

Example

Note: The following example is only for reference; users must set up an optimal reaction system according to different reaction conditions such as different templates or primers.

1. To set up a 25-µL PCR reaction system: A 1-kb fragment of human genomic DNA was amplified using 2× Super Hi-Fi Taq PCR MasterMix (if using a different reaction system, proportionally increase or reduce the amount of reaction components).

Template	<1 µg
Primer 1(10 µM)	1 µL
Primer 2(10 µM)	1 µL
2x Master Mix	12.5 µL
ddH_2O	Up to 25 µL

2. PCR cycle setup:

94 ℃	3 min	
94 ℃	30 sec	30 cycles
55 ℃	30 sec	
72 ℃	1 min	
72 ℃	5 min	

3. Result detection: Load 5 µL of PCR products to agarose gel for detection.

This product is for research only, not for diagnostic and clinical use.