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Datasheet

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2X ACE Taq Master Mix (Blue)

Cat# EP1001-s 1ml / EP1001 1ml x 5 / EP1002 1ml x 10

Storage: All components should be stored at -20℃.

INTRODUCTION

ACE Taq DNA Polymerase is a thermostable DNA polymerase that possesses a 5'→3' polymerase activity and a 5'→3' exonuclease activity. 2X ACE Taq Master Mix contain Taq DNA Polymerase, dNTP, and an optimized buffer system. The amplification can start only with the addition of primer and template, thereby easing PCR setup and improving reproducibility. Protective agents in the ACE Taq Master Mix enable the resistance to repeated freeze-thaw cycles. The PCR products contain A-tailing and can be directly cloned into T-Vectors.

CONTENTS

No	Component	EP1001-s	EP1001	EP1002
AA	2X ACE Taq Master Mix (Blue)	1 ml	1 ml x 5	1 ml x 10

PROTOCOL

1. Mix the following components

2X ACE Taq Master Mix	25 ul
Template DNA*	Optional
Primer 1 (10 uM)	2 ul
Primer 2 (10 uM)	2 ul
RNase-free ddH_2O	To 50 ul

*The recommended amount of DNA template for a 50 µl reaction is as follows:

Human gDNA, 0.1-1 µg; Bacterial gDNA, 10-100 ng; λDNA, 0.5-5 ng; Plasmid DNA, 0.1-10 ng.

Note: ACE Taq DNA Polymerase also shows polymerase activity at room temperature. Therefore, it is recommended to set up reaction systems on ice and then immediately start the reaction in PCR amplifier, so as to reduce nonspecific amplification during preparation and get better PCR results.

2. Place the sample in a PCR instrument and run the following program for PCR :

Stage	Temp.	Time	Cycle
Pre-Denaturation[1]	94℃	5 min	1
Denaturation	94℃	30 s	40
Annealing	55℃	30 s	
Extension	72℃	60 s/ kb	
Final Extension	72℃	7 min	1

*The optimal annealing temperature should be 1-2℃ lower than the Tm of the primers used.

PRIMER DESIGN NOTE

1. Choose C or G as the last base of the 3’-end of the primer.
2. Avoid continuous mismatching at the last 8 bases of the 3’-end of the primer.
3. Avoid hairpin structure at the 3’-end of the primer.
4. Tm of the primers should be within the range of 55℃ - 65℃.
5. The additional sequence should not be included when calculating Tm of the primers.
6. GC content of the primers should be within the range of 40% - 60%.
7. Tm and GC content of forward and reverse primers should be as similar as possible.

PRODUCT USE LIMITATION

These products are intended for research use only.