HiSense™ Multiplex PCR Premix

Cat. No. LMP-96, LMP-480

1. Product Information

Introduction

HiSense™ Multiplex PCR Premix is designed to perform a PCR reaction easily by dispensing HiSense™ Multiplex PCR Master Mix into an 8-strip tube. It was dried by vacuum freezing drying method so that the user can use it immediately by adding a template, primers, and water.

This product allows multiple genes to be amplified simultaneously in one or more templates, amplicons ranging from 100 bp to 1 kb in size can be effectively amplified simultaneously.

The Multiplex PCR reaction has a problem in that non-specific reaction products appear frequently. However, the DNA free-Taq and Hot start techniques used in this product solve this problem, leading to a high specificity response, resulting in satisfactory results.

Application

- Allele specific PCR
- 16S and 23S rRNA gene amplification
- Detection of bacteria in samples (e.g. blood)
- SNP detection
- Sequencing / cycle sequencing

2. Contents and Storage

Materials Provided

Label	LMP-96	LMP-480
2X Multiplex Premix	8-Strip × 12ea	8-Strip × 60ea

Storage

Store at -20°C

Check the label on the product for expiration date.

3. Test Protocol

Reaction mixture (for 20µl reaction)

Reaction components	Volume
2X Multiplex Premix	-
Forward primers, (10pmol/µl)*	1 µl
Reverse primers, (10pmol/µl)*	1 µl
Template DNA**	2 µl
DNase free water	up to 20 µl

* A final primer concentration of 0.5 µM is optimal in most cases but may be individually optimized in a range of 0.2 µM to 1.0 µM.
** The optimal quantity varies depending on the number of target copies present in the template solution. Use no more than 100 ng.

After tapping the 8-strip tube containing the above reaction mixture, briefly spin-down it. (Repeat until the reaction mixture is completely dissolved.)

PCR reaction condition

Steps & Cycles	Temp(°C)	Time	Cycles
Pre heat	95	5 min	1
Denature	95	30 sec	30~40
Anneal*	60	30 sec	
Extend**	72	1 min	
Final extension	72	5 min	1

* Optimal annealing temperature depends on the melting temperature of the primers and on the system used.
** Generally, 1 min/kb and higher than 3 kb, set it to 1.5 to 2.0 min/kb.