

HiSense™ Multiplex PCR Master Mix

Cat. No. DFMM-5

1. Product Information

Introduction

HiSense™ Multiplex PCR Master Mix is a master mix product designed to allow users to easily perform Multiplex PCR reactions using HotTaq DNA Polymerase.

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, Hot start techniques used in this product solve this problem, leading to a high specificity response, resulting in satisfactory results.

Application

- Multiplex PCR
- 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	DFMM-5
2X Multiplex Master Mix	5 ml

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 Master Mix	10 µl
Forward primers, (10pmol/µl)*	1 µl
Reverse primers, (10pmol/µl)*	1 µl
Template DNA**	2 µl
DNase free water	up to 20 µl
Total volume	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.

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.

** Generally, 1 min/kb and higher than 3 kb, set it to 1.5 to 2.0 min/kb.