

# HiSense™ HotTaq PCR Master Mix

Cat. No. DFHM-5

## 1. Product Information

### Introduction

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

HotTaq DNA Polymerase is a mixture of Taq DNA Polymerase and Taq antibody which strongly inhibits Taq polymerase activity at room temperature.

Taq antibody is isolated from Taq polymerase and deactivated at over 50°C within 3 minutes, so it can effectively inhibit primers/dimers without an enzyme activation step which requires more than 10 minutes.

### Application

- Hot start PCR
- Allele specific PCR
- 16S and 23S rRNA gene amplification
- Detection of bacteria in samples(e.g. blood)
- DNA labeling reactions & TA-cloning
- Sequencing / cycle sequencing

## 2. Contents and Storage

### Materials Provided

Label	DFHM-5
2X HotTaq 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 HotTaq 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	25~35
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.