

HiSense™ DLRTaq PCR Master Mix

Cat. No. DFDLM-5

1. Product Information

Introduction

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

DLRTaq DNA Polymerase is optimized for amplifying DNA templates up to a length of 40 kb. Excellent proofreading, amplification processivity, and speed consistently provide accurate and reliable amplification results for long templates.

In addition, the added dUTPase and optimized buffer allow large-sized DNA to be effectively amplified.

Application

- Long range 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 | DFDLM-5 |
|----------------------|---------|
| 2X DLRTaq Master Mix | 5 ml |

Storage

Store at -20°C

Check the label on the product for expiration date.

3. Test Protocol

Reaction mixture (for 20 or 50µl reaction)

| Reaction components | Volume | |
|----------------------------------|-------------|-------------|
| 2X DLRTaq Master Mix | 10 µl | 25 µl |
| Forward primers, (10pmol/µl)* | 1 µl | 2.5 µl |
| Reverse primers, (10pmol/µl)* | 1 µl | 2.5 µl |
| Template DNA** | 2 µl | 5 µl |
| DNase free water | up to 20 µl | up to 50 µl |
| Total volume | 20 µl | 50 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 250 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** | 68 | 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.