HiSense™ DLRTaq PCR Polymerase

Cat. No. DLR-500

1. Product Information

Introduction

HiSense™ DLRTaq PCR 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	DLR-500
DLRTaq DNA Polymerase (5 Unit/µl)	100 µl
dNTPs Mixture 10 mM (2.5 mM each)	1 ml
10X PCR Buffer with 25 mM $MgCl_2$	1.5 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	
DLRTaq DNA polymerase	1 unit	2.5 unit
10X PCR buffer	2 µl	5 µl
dNTPs mixture	1.6 µl	4 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.