HiSense™ HotTaq PCR Polymerase

Cat. No. DFH-500

1. Product Information

Introduction

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

Taq antibody is isolated from Taq DNA 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
- SNP/Genotyping
- 16S and 23S rRNA gene amplification
- Detection of bacteria in samples(e.g. blood)
- DNA labeling reactions & TA-cloning
- Minimize Primer/dimer

2. Contents and Storage

Materials Provided

Label	DFH-500
HotTaq DNA Polymerase (2.5 Unit/µl)	200 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 20µl reaction)

Reaction components	Volume
HotTaq DNA polymerase	1 unit
10X PCR buffer	2 µl
dNTPs mixture	1.6 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.