2 × *Taq* PCR Mix (Dye Plus)

Catalog No.: A0002

Description

***EZ*Bioscience**™ 2× *Taq* PCR Mix is a Hot Start *Taq*-based PCR reagent that contains an electrophoresis dye (BPB; bromophenol blue). The mix contains Hot Start *Taq* DNA Polymerase, dNTPs, reaction buffer, and stabilizers for PCR. The activity of Hot Start *Taq* DNA Polymerase in the mix is blocked at ambient temperature, and activity is restored after the initial denaturation step in PCR cycling at 95°C. This process offers increased sensitivity, specificity, and yield, while allows reaction assembly at room temperature. This reagent performs highly specific and efficient amplification, and no decrease in reaction efficiency is observed after 20 freeze-thaw cycles. The amplified products can be loaded into the wells of agarose gels directly, either can be cloned into T-Vectors directly because most PCR products synthesized by *Taq* DNA polymerase have an A overhung at the 3'-terminus.

Components

Components	A0002	A0002-L
***EZ*Bioscience**™ 2× *Taq* PCR Mix	5 ml	25 ml

Storage

Store at -20 °C.

Protocol

1. Standard reaction mixture:

Component	Reaction volume		Final concentration
	50 µl	20 µl	
ddH_2O	X µl	X µl	
2× *Taq* PCR Mix	25 µl	10 µl	
Primer 1 (10 µM)	1 µl	0.4 µl	0.2 µM
Primer 2 (10 µM)	1 µl	0.4 µl	0.2 µM
Template DNA	Y µl	Y µl	Plasmid DNA: 0.1~10 ng Bacterial Genomic DNA: 10~100 ng Human Genomic DNA: 0.1~1 µg λ DNA: 0.5~5 ng

2. Routine PCR Cycle Conditions:

Predenaturation	95 °C, 5 min	
Denaturation	95 °C, 15 sec	35 cycles
Annealing	(Tm-2) °C, 15 sec	
Extension	72 °C, 1 min/kb	