Super TaqGreen PCR Mix

For research use only

Cat. No./Spec.			
Cat. No	*K033-A*	*K033-B*	*K033-C*
50-μl reaction Nos.	*40 rxns*	*200 rxns*	*4,000 rxns*

Description

Super TaqGreen PCR Mix is formulated with Invitrogen PlatinumII Taq Hot-Start DNA Polymerase, making it functionally consistent with Invitrogen PlatinumII Hot-Start Green PCR Master Mix. Universal annealing temperatures can be used, which reduces the number of reaction optimization steps and enables simultaneous amplification of different PCR reactions. The ingenious combination of innovative buffer, high-performance Taq DNA polymerase, and superior hot-start technology delivers outstanding PCR results in even the most demanding applications. The amplified product has a 3 '-dA protrusion and can be directly used for TA cloning.

Components

Component	K033-A	K033-B	K033-C
2X Super TaqGreen PCR Mix	*1 ml*	*1 ml × 5*	*100 ml*

This product contains two electrophoresis indicators, blue and yellow, PCR amplification products can be directly electrophoretic.

Features

Universal primer annealing temperature (60°C)—reduces tedious PCR optimization steps and enables simultaneous amplification of different PCR reactions
Rapid DNA synthesis and inhibitor tolerance—using engineered Taq polymerase
Platinum hot-start technology – provides excellent specificity, sensitivity, and yield; The reaction system can be prepared at room temperature
Green buffer – enables direct gel loading of PCR products to help reduce pipetting errors

Storage

Store at -20°C for 2 years.

Protocol

1. Preparation of reaction solution

Add the following reagents to the proper thermal cycler reaction tube or plate on ice or at RT:

Component	50-μl rxn	Final Conc.
2X Super TaqGreen PCR Mix [1]	*25 μl*	*1X*
upstream primer (10 μM) [2]	*2 μl*	*0.4 μM*
downstream primer (10 μM) [2]	*2 μl*	*0.4 μM*
template DNA [3]	*1-4 μl*	*<0.5μg*
Water, nuclease-free	*to 50 μl*	*–*

[1] The amount of Super TaqGreen PCR Mix can be adjusted according to the needs of the experiment. Reducing the final concentration can improve the reaction specificity, and increasing the final concentration can improve the reaction efficiency.

[2] Recommended range of final primer concentration: 0.1-1μM. The concentration can be reduced when the specificity is poor, and the concentration can be increased when the efficiency is low.

[3] The optimal dosage varies with different templates. The recommended dosage for some DNA templates is as follows (50 μl reaction system).

Template	*Human genomic DNA*	*λDNA*	*cDNA*	*Plasmid DNA*
Dosage	*1ng-500g*	*0.5ng-5ng*	*1-5μl*	*0.1ng-10ng*

2. Perform PCR using the following thermal cycling condition

Stage	Temperature	Time	Number of Cycles
Initial Denaturation	*94°C*	*2 min*	*1*
Denaturation	*94°C*	*15 sec*	*25-35*
Annealing	*55-60°C[1]*	*15 sec*	
Extension	*72°C*	*20 sec/kb*	
Final Extension	*72°C*	*5 min*	*1*

[1] 60° C can meet the annealing of most primers, and the appropriate annealing temperature can be found by gradient PCR for special primers.

Quality Control

The absence of endodeoxyribonucleases, exodeoxyribonucl- eases and ribonucleases is confirmed by appropriate quality tests. Functionally tested in amplification of a single-copy gene from human genomic DNA.

Product Use Limitations

This product is sold exclusively for research purposes and in vitro use. Neither the product, nor any individual components, was tested for use in diagnostic applications or for drug development, nor is it suitable for administration to humans or animals. Please refer to the MSDS, available upon request.