Super TaqPlus Green PCR Mix

For research use only

Cat. No./Spec.			
Cat. No	*K034-A*	*K034-B*	*K034-C*
50-μl reaction Nos.	*40 rxns*	*200 rxns*	*4,000 rxns*

Description

Super TaqPlus Green PCR Mix is formulated with Invitrogen PlatinumII Taq Hot-Start DNA Polymerase and Platinum SuperFiII DNA Polymerase in a certain ratio, and has been verified by NGS to have similar fidelity performance to Platinum SuperFiII Green PCR Master Mix. And the amplification performance is stronger. Universal annealing temperatures can be used, which reduces the number of reaction optimization steps and enables simultaneous amplification of different PCR reactions. It has a high capacity for continuous amplification and is more resistant to PCR inhibitors. It also allows for fast-cycling protocols and amplification of long targets (up to 20 kb).

Components

Component	**K034-A**	**K034-B**	**K034-C**
2X Super TaqPlus Green 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

Superior fidelity, > 150X Taq
60°C universal primer annealing temperature
Excellent specificity, sensitivity, and yield
Reliable amplification of difficult-to-amplify targets (e.g., targets with poor purity, targets with 65% GC content, long PCR requirements)

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 TaqPlus Green PCR Mix	*25 μl*	*1X*
upstream primer (10 μM) [1]	*2 μl*	*0.4 μM*
downstream primer (10 μM) [1]	*2 μl*	*0.4 μM*
template DNA [2]	*1-4 μl*	*<0.5μg*
Water, nuclease-free	*to 50 μl*	*–*

[1] 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.

[2] 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*	*30 sec*	*25-35*
Annealing	*60°C[1]*	*30 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.