2X SuperRed PCR Master Mix

Cat. no. TE-SR01
Storage: Store at -20°C for 1 year
Product Size: 1.25 mL

Introductrion

The 2X SuperRed PCR Master Mix is a 2× concentrated optimized mixture composed of Taq DNA polymerase (0.2 units/μL), Tris-HCl (pH 8.5), $(NH_4)_2S0_4$, 3 mM $MgCl_2$, 0.2% Tween 20, and 0.4 mM dNTPs. An inert red dye and stabilizer are also provided to allow direct loading of the final products onto an agarose gel for analysis. The advantages of the 2X SuperRed PCR Master Mix include convenience and high sensitivity, specificity, and stability. It also minimizes human-made errors during the PCR operating process. The 2X SuperRed PCR Master Mix is suitable for routine PCR reaction, the amplification of complex templates such as GC-rich templates (>60%) and templates with a secondary structure, and large-scale gene detection.

Description

The 2X SuperRed PCR Master Mix is designed for the quick and easy preparation of a reaction mixture to minimize contamination during the PCR operating process. For PCR reaction setup, users only need to pipet an aliquot part of the 2X SuperRed PCR Master Mix and dilute the Master Mix to 1× by adding templates, primers, and water up to the reaction volume. PCR products produced by the 2X SuperRed PCR Master Mix can be loaded directly, without needing an additional loading buffer.

Product Applications

1. Gene detection: The 2X SuperRed PCR Master Mix is especially suitable for large-scale gene detection, semi-quantitative PCR, and the detection of tiny amounts of DNA.
2. Amplification of DNA and complex templates, such as GC-rich templates (>60%) and templates with complex secondary structure: The enzyme of the 2X SuperRed PCR Master Mix generates PCR products with A-tailing, which is suitable for TA cloning.

Protocol

Note: The following example is for reference only. Users must set up an optimal reaction system according to their specific reaction condition, templates, and primers.

1. In a 25 µL PCR reaction system: 1 kb fragment of human genomic DNA is amplified by using the 2X SuperRed PCR Master Mix (if using a different reaction system, please proportionally increase or decrease the amount of reaction components, referring to this system).

Component	Volume	Final Conc.
Template (< 1 ug)	X µL	-
Forward Primer (10 µM)	1 µL	0.4 µM
Reverse Primer (10 µM)	1 µL	0.4 µM
2X Master Mix	12.5 µL	-
ddH_2O	Up to 25 µL	-
Total volume	25 µL	-

Standard condition

Step	Temperature	Time	Number of cycles
Initial denaturation	95i	1 min	1 cycle
Denaturation	95n	30 sec	30 cycle
Annealing	55n	30 sec	
Extension	72t	1 min	
Final Extension	72n	5 min	1 cycle
Soak	4℃	hold	1 cycle

2. Result detection: Load 5 µL of PCR product to agarose gel for detection.

*This product is for research only, not for diagnostic or clinical use.