

Catalog No.: D139

Product Name: **SafeStain Super-PCR Kit**

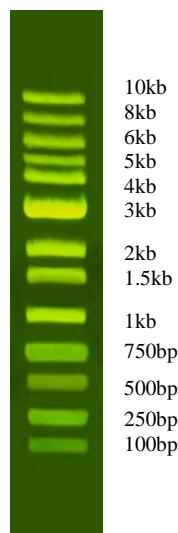
Special Feature: Direct loading & visualization

Contents:

SafeStain 2X PCR Master Mix	PreSafeStained 1Kb DNA Ladder
2000µl	1000µl

Storage: 4°C, or -20°C for long term

Description: The **SafeStain Super-PCR Kit** contains the SafeStain 2X PCR Master Mix and the PreSafeStained 1Kb DNA Ladder. SafeStain is a non-carcinogenic green fluorescent dye for staining the DNA fragments directly in the PCR mix and the DNA ladder. *Taq* Plus DNA polymerase is used in the 2X PCR master mix with dNTP, Mg²⁺ and PCR reaction buffer optimally formulated for efficient amplification of DNA templates by PCR. Users only need to add template, primers for PCR, which greatly saves time and reduces contamination due to less pipetting steps needed for PCR set-up. When running the agarose gel, two non-toxic inert dyes, blue and yellow, can viewed on the gel. The blue dye migrates at the position of a 4kb and the yellow dye at about 10bp of DNA fragment. The **Pre-SafeStained 1Kb DNA Ladder** contains 13 DNA fragments ranging from 100bp to 10Kb.



M1008 on 0.7% agarose gel

1x Composition: 10mM KCl, 20mM Tris HCl (pH9.0), 16mM (NH₄)₂SO₄, 0.1% Triton X-100, **1.5mM MgCl₂***, 200µM dNTPs, 2.5units/25ul of *Taq* DNA polymerase, trace amount of dyes and enzyme enhancer and stabilizer.

Magnesium Chloride: In general, 1.5mM MgCl₂ is recommended; this may vary with different conditions and primer sets. If needed, Mg²⁺ concentration can be adjusted as shown below:

Final MgCl₂ conc.	25mM MgCl₂ for a 50µl reaction
1.5mM	-----
2.0mM	1.0µl
2.5mM	2.0µl

Directions for use:

1. Add the following reagents to a PCR tube or plate, and mix:

<u>2X <i>Taq</i> Master Mix:</u>	25 µl
<u>Primers:</u>	y µl
<u>Sample:</u>	1 µl
<u>Water:</u>	x µl
*Total volume:	50 µl

*Adjust your PCR volume proportionally, such as, using 25 µl as your final PCR reaction volume.

2. Perform the thermal cycling. For example:

Step	Temperature	Time	Cycles
Initial Denature	95°C	1-3 min	1
Denature	95°C	0.5-1 min	30-35
Annealing	50-65°C	0.5-1 min	
Extension	72°C	1 min/kb	
Final Extension	72°C	5-7 min	1
Hold	4°C	∞	

3. Direct loading the PCR product along with the **PreSafeStained 1Kb DNA Ladder** to agarose gel for visualization of PCR results and DNA ladder.

Related products

Catalog No.

- Agarose (Standard-Agarose) A113
- PreSafeStained 100bp DNA Ladder M3002
- PreSafeStained 1Kb DNA Ladder M1008
- SafeStain 6X DNA Loading Dye 6XLD
- Ultra Bright LED Transilluminator LB-16
- UltraSlim® LED Illuminator SLB-01