PR1MA™ Taq DNA Polymerase 1X Master Mix

For genotyping and colony PCR

Contents

PR1MA™ DNA Polymerase 1X Master Mix saves time and cost by enabling direct PCR amplification of unpurified templates. 1X Master Mix is a PCR master mix containing a recombinant, truncated (lacks 5' to 3' exonuclease activity), highly thermostable DNA polymerase from the thermophilic bacterium *Thermus aquaticus*. Taq is thermostable up to 98˚C for PCR assays and is provided as a complete reaction mix consisting of reaction buffer, dNTPs, MgCl 2, and loading dye and only requires the addition of primers and template DNA.

Background

Taq DNA polymerase is a recombinant, truncated (lacks 5' to 3' exonuclease activity), and highly thermostable DNA polymerase from the thermophilic bacterium *Thermus aquaticus*. The enzyme is thermostable up to 98˚C for PCR assays. It is supplied as a complete reaction mix requiring only primers and template DNA, ideal for colony PCR and genotyping. After the reaction is complete, the PCR products can be loaded directly to an agarose gel for analysis.

Application Notes

PR1MA™ Taq DNA polymerase (exonuclease minus) is resistant to inhibitors and ideal for PCR of GC- rich templates.

**These products are intended for research use only, not for diagnostic use. The safety and efficacy of these products in diagnostic or other clinical uses has not been established.*

Shipping & Storage

- PR1MA™ Taq DNA polymerase is supplied in a reaction mix of 10 mM Tris-HCl, 1.5 mM MgCl 2, 50 mM KCl, 0.1% Triton X-100, 15% Sucrose, 0.0268% Orange G, 0.0022% Xylene cyanol FF.
- Taq DNA polymerase is shipped on dry or blue ice. On arrival store at -20˚C for optimum stability.

Quality Control

- PR1MA™ Taq DNA polymerase Unit activity: PR1MA™ Taq 1X Master Mix contains 3.25 U of Taq. A known polymerase is used to create a standard curve with a real-time qPCR assay against which the activity of this enzyme is measured.
- Purity: >95% as determined by SDS-PAGE analysis
- Taq DNA polymerase is free of detectable RNase and DNase (exo- and endonuclease).
- <0.05 ng contaminating host DNA per 3.25 U of Taq

Reaction set up

- Thaw all reagents prior to setting up PCR.
- Set up reaction on ice (4˚C).

Component	Stock	~25 µL Rxn	Final Conc.
1X DirecTaq Master Mix	1X	25 µL	1X
DNA template	Varies	1.0 µL	
Forward Primer	100 µM	0.25 µL	~1.0 µM
Reverse Primer	100 µM	0.25 µL	~1.0 µM