

## Taq DNA Polymerase Master Mix

### 2. 0X Master Mix Kit (1.5mM MgCl<sub>2</sub>)

Cat. No.	final volume		Taq DNA Polymerase Master Mixes	MgCl <sub>2</sub> Conc.
	50µL	20µL		
680802	200	500	2.0x Master Mix	1.0 mM
680806	400	1000	2.0x Master Mix	1.0 mM

Store at -20°C. Reagent for in-vitro laboratory use only

#### General Description

Taq DNA Polymerase Master Mix is a ready-to-use 2.0X reaction mix. Simply add primers, template, and water to successfully carry out primer extensions and other molecular biology applications.

GenePure Taq DNA Polymerase, the NH<sub>4</sub><sup>+</sup> buffer system, dNTPs and magnesium chloride are present in Taq DNA Polymerase Master Mix. Each reaction requires 25 µL of the 2.0X reaction mix. Simply add primers, template and water to a total reaction volume of 50 µL

Tween 20® is a registered trademark of ICI Americas, Inc.

Taq DNA Polymerase Master Mix offers several advantages. Set up time is significantly reduced. The chance of contaminating component stocks is eliminated. Reduction of reagent handling steps leads to better reproducibility. Standard tests can be set up with the confidence that results will be consistent every time.

#### 特點:

- 2X Master Premix的配方, 減少操作時間, 降低PCR污染機會。
- 只需加入Primer及Template即可進行PCR反應。
- 高活性, 高穩定性, 室溫下數日, 活性依然未減。
- 再現性高, 品質穩定, 複製長度5~8Kb。
- 加入DNA電泳追蹤染劑, 跑完PCR可直接loading電泳。
- PCR反應的Buffer配方已達最優化, 幾乎所有PCR反應都可以順利進行, 即使G-C rich的Template, 依然有90%可以複製成功。

#### 結果比較:

1 2 3 4 5 M 6 7 8 9 10 M



1.6: GenePure  
 2,3,4,5,7,8,9,10  
 其他廠牌

Template:100ng Template:10ng

當Template量太低時, 您的PCR就有可能做不出來, 而導致您誤判。最常發生的原因是偷工減料, 減少Taq及dNTP 含量以降低成本。

●容量:1.0ml/支

#### Composition of 2.0X Taq Master Mix

- 150 mM Tris-HCl pH 8.5, 40 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 3.0 mM MgCl<sub>2</sub>\*, 0.2% Tween 20®
- 0.4 mM dNTPs
- 0.05 units/µL Taq polymerase
- Stabilizer

#### Suggested Protocol using Taq Master Mix

This protocol serves as a guideline for primer extensions. Optimal reaction conditions such as incubation times, temperatures, and amount of template DNA may vary and must be individually determined.

#### Notes:

- Set up reaction mixtures in an area separate from that used for DNA preparation or product analysis.
- The table below shows the reaction set up for a final volume of 50 µL. If desired, the reaction size may be scaled down. Use 10 µL of the 2.0X master mix in a final volume of 20 µL.
- **Important:** Spin Taq Master Mix vials briefly before use.

1. Set up each reaction as follows:

Component	Vol./reaction	Final
Taq Master Mix	25 µL	1X
Primer A	Variable	0.1–1.0 µM
Primer B	Variable	0.1–1.0 µM
Distilled Water	Variable	----
Template DNA	Variable	Variable
<b>TOTAL I</b>	50 µL	----

- Mix gently by pipetting the solution up and down a few times.
- Program the thermal cycler according to the manufacturer's instructions.

For maximum yield and specificity, temperatures and cycling times should be optimized for each new template target or primer pair.

- Place the tubes in the thermal cycler and start the reaction.