
2X *Taq* Master Mix

Cat. No.: E00019

Version 2018-07-16

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I Description

2X *Taq* Master Mix is a premixed 2X concentrated solution of *Taq* DNA Polymerase (GenScript, Cat. No. E00007), reaction buffer, MgCl²⁺ and dNTPs. 2X *Taq* Master Mix contains all components for PCR*, except DNA template and primers. The mixture is optimized for consistent and efficient routine PCR amplifications. It can amplify up to 8 kb fragment from lambda DNA. For a 50 µL reaction, simply add 25 µL of 2X *Taq* Master Mix to primers, DNA template and PCR-Qualified H₂O.

II Key Features

- ◇ *Taq* DNA Polymerase in ready-to-use mix
- ◇ Low contamination risk
- ◇ Low risk of pipetting errors

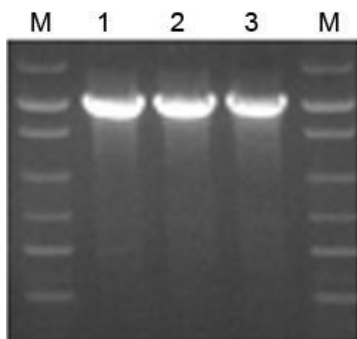
III Contents

- ◇ 0.1 U/µL *Taq* DNA Polymerase (GenScript, Cat. No. E00007)
- ◇ Reaction buffer
- ◇ 3 mM MgCl₂
- ◇ 0.4 mM dNTPs

IV Stability

1. Freeze-thaw stability of 2X *Taq* master mix: Following 25 freeze-thaw cycles, no effect on performance is observed.

Figure 1: Stability after 25 freeze-thaw cycles.



2 kb fragment amplification

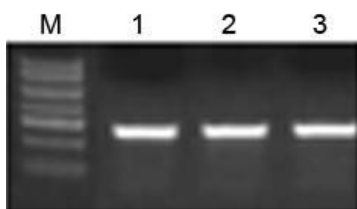
Lane 1 25 μ L of 2X *Taq* Master Mix

Lane 2 25 μ L of 2X *Taq* Master Mix after 25 freeze-thaw cycles

Lane 3 2.5 U *Taq* DNA Polymerase (GenScript, Cat. No. E00007)

2. Stability at 4°C: No effect on performance is observed after storage at 4°C for 2 months.

Figure 2: Stability at 4°C



0.5 kb fragment amplification

Lane 1 25 μ L of 2X *Taq* Master Mix

Lane 2 25 μ L of 2X *Taq* Master Mix storage at 4°C for 2 months

Lane 3 2.5 U *Taq* DNA Polymerase (GenScript, Cat. No. E00007)

V Shipping And Storage

This product is shipped on blue ice. Store the product at -20°C .

VI General PCR Protocol

This is a general PCR amplification protocol, optimization may be needed to get satisfactory results.

1. Thaw the 2X *Taq* Master Mix at room temperature. Vortex the 2X *Taq* Master Mix and then spin it briefly in a microcentrifuge to collect the material in the bottom of the tube.

2. Prepare one of the following reaction mixes on ice:

For a 25 μ L reaction volume:

Component	Volume	Final Concentration
2X <i>Taq</i> Master Mix	12.5 μ L	1X
Upstream Primer, 10 μ M	0.5 μ L	0.1–1.0 μ M
Downstream Primer, 10 μ M	0.5 μ L	0.1–1.0 μ M
DNA Template	1-5 μ L	<500 ng
Nuclease-Free Water to	25 μ L	

For a 50 μ L reaction volume:

Component	Volume	Final Concentration
2X <i>Taq</i> Master Mix	25 μ L	1X
Upstream Primer, 10 μ M	1 μ L	0.1–1.0 μ M
Downstream Primer, 10 μ M	1 μ L	0.1–1.0 μ M
DNA Template	1-5 μ L	<500 ng
Nuclease-Free Water to	50 μ L	

3. Gently mix the reaction and spin down in microcentrifuge

4. Set up cycling conditions for a routine PCR reactions:

Initial denaturing:	94-95°C for 1-5 minutes
Then 30 cycles of:	94-96°C for 30 seconds
	45-70°C for 10-30 seconds
	72°C for X seconds (about 1 kb/minute)
Final Extension	72°C for 7 minutes
Final sock	4-10°C

VII Ordering information

Product Name	Cat. No.
<i>Taq</i> DNA Polymerase	E00007
Green <i>Taq</i> DNA Polymerase	E00043
2x <i>Taq</i> Master Mix	E00019

* The PCR process is covered by U. S. Patent numbers 4683195 and 4683202 issued to Cetus and owned by Hoffman-La Roche Inc. GenScript does not encourage or support the unauthorized use of the PCR process. Use of this product is recommended for persons that either have a license to perform PCR or are not required to obtain a license.

Contact us

Web: <https://www.genscript.com>

Email: product@genscript.com

Fax: 1-732-518-5150