Kyratec.

Product Datasheet

2x Taq Master Mix

Cat No.

XT71001	1 mL
XT71002	2.5 mL

Features

- Saves time and reduces contamination due to reduced number of pipetting steps.
- Stable at 4°C for 6 months, allowing immediate reaction setup without the time-consuming thawing of reagents.
- Suitable for all routine DNA amplification applications.
- Generates mostly 3'dA overhang PCR products which are suitable for TA cloning.

Description

2X Taq Master Mix is an optimized ready-to-use 2X concentrated DNA amplification mixture containing Taq DNA Polymerase, reaction buffer, dNTPs and $MgCl_2$. It contains all the components required for routine DNA amplification except template and primers.

Product Specifications

Supplied with;

	XT71001	XT71002
2x Taq Master Mix	1 mL	2 x 1.25 mL
Nuclease-free Water	1.5 mL	2 x 1.5 mL
50mM $MgCl_2$	1 mL	1 mL

* 2X Taq Master Mix consists of Taq DNA Polymerase(0.05u/µl), 2X Buffer A, 0.4mM dNTPs and 3.0 mM $MgCl_2$.

Storage Buffer

- 2X Taq Master Mix is stable at -20°C for one year or at 4°C for 6 months if properly stored.
- 2X Taq Master Mix is stable for 20 freeze-thaw cycles. To avoid frequent freeze-thaw, keeping small aliquot at -20°C is recommended.
- For daily use, keeping an aliquot at 4°C is recommended.

Storage Conditions

2x Taq Master Mix can be stored for 12 month at -20°C.

Shipping Conditions

On Dry Ice or Blue Ice.

Quality Control

All preparations are assayed for contaminating endonuclease, exonuclease, and non-specific DNase activities. Functionally tested in DNA amplification.

Unit Definition

1u is defined as amount of enzyme that required to catalyze the incorporation of 10nmoles of dNTP into acid-insoluble material in 30 minutes at 74°C.

PCR Reaction Conditions (for a 50uL reaction)

2x Taq Master Mix	25 uL
Template	〈 500 ng
Primers	0.2 - 1.0 uM
Water (ddH_2O)	up to 50 uL

PCR Condition

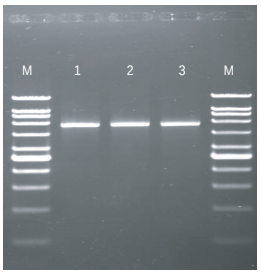
Pre Denaturation	94°C, 2 min
Denaturation	94°C, 30 sec
Annealing	50 - 68 °C, 30 sec
Extension/1kb	72°C, 30 sec
Cycles	35 cycles
Final Extension	72°C, 7 min

Notes:

Denaturation condition varies depending on an used thermal cycler and tube. It is recommended for 10 - 30 sec. at 94°C.

The suggested final concentration of Mg^{2+} in the reaction is likely to be 2 - 4 mM, but some optimization may necessary to achieve the best possible results.

This data is intended for use as a guide only; conditions will vary from reaction to reaction and may need optimization.



Amplification of 5kb DNA fragment from lambda DNA using 2X Taq Master Mix in a 50µl reaction mixture.

Lane M : 1kb DNA Ladder
Lane 1 : DNA amplification product generated with 1.25u of X-Taq DNA Polymerase
Lane 2 : DNA amplification product generated with 2X Taq Master Mix (store at -20°C).
Lane 3 : DNA amplification product generated with 2X Taq Master Mix (after 20 freeze-thaw cycles).

0.7% TAE agarose gel