Absolute Master Mix

Cat No: AMM-M-001-1250

Size: 1.25ml

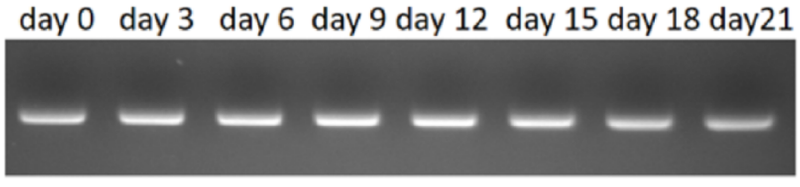
Stored at 25°C up to one week, at 4°C up to six months and at -20°C up to one year.

MOLEQULE-ON®

Description

Absolute Master Mix is a ready-to-use PCR reaction mixture. It only requires addition of primers, DNA template and water to carry out polymerase chain reaction. Absolute Master Mix contains recombinant Thermostable DNA Polymerase, PCR Buffer with Mg^{2+}, dNTPs and loading dyes. Absolute Master Mix is supplied at the 2X concentration to allow approximately 50% of the final reaction volume to be used for the addition of primer and template solutions. Components of Absolute Master Mix are tested for the absence of DNase, RNase and exonuclease activities. Recombinant *Taq* DNA polymerase is tested for the absence of exonuclease, and double- and single-stranded endonuclease activities. Absolute Master Mix is stable under temperature change and the enzyme maintains the same performance even when stored at 37°C after 21 days.

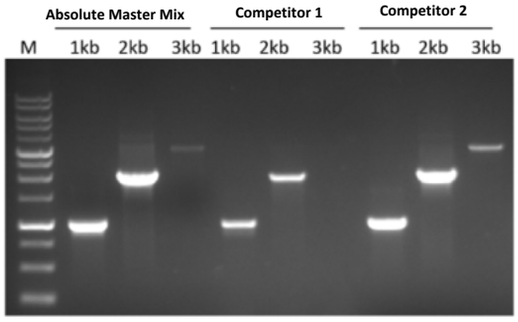
Storage and Heat Tolerance



High Speed (One Minute Extension)

Cycle	Temperature	Time
1	95°C	05:00
30	95°C	00:30
	72°C	01:00
1	72°C	05:00
	14	99:99

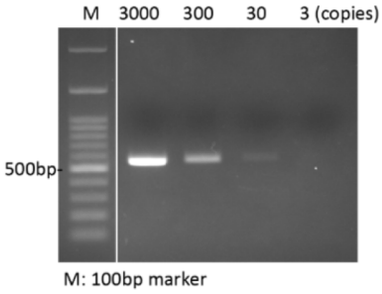
• Lambda DNA from NEB N3011



M: 1000bp marker, 1kb to 3kb: amplification range with 1kb to 3kb in 1 min

High Sensitivity

Cycle	Temperature	Time
1	95°C	05:00
32	95°C	00:50
	62°C	00:30
	72°C	01:00
1	72°C	05:00
	14°C	99:99

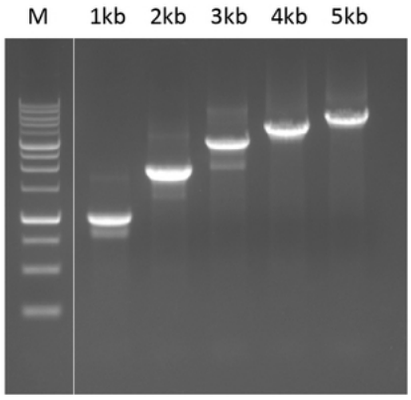


M: 100bp marker

Amplification of long targets up to 5kb from Lambda DNA

Cycle	Temperature	Time
1	95°C	05:00
30	95°C	00:30
	72°C	05:00
1	72°C	05:00
	14	99:99

• Lambda DNA from NEB N3011



M: 100bp marker, 1kb to 5kb: amplification range with 1kb to 5kb

For Laboratory Use Only

Features

- Storage and Heat Endurance: 21 days in 37°C stable.
- Super high speed : Complete 2 kb in 60 seconds (30b ~ 50b/sec in extension).
- High sensitivity: Low copy number of template amplification.
- Amplification of long targets up to 5kb from Lambda DNA.
- Best balance between performance and value.

Recommendations

Since PCR is a powerful technique capable of amplifying trace amounts of DNA, all appropriate precautions should be taken to avoid cross-contamination. Ideally, amplification reactions should be assembled in a DNA-free environment. Use of filter tips is recommended. Special care should be taken to avoid contamination with primers or template DNA between individual reactions. PCR products should be analyzed in an area separate from the reaction preparation area.

Protocol

Standard PCR with Absolute Master Mix:

1. For each 20 µl reaction, add the following materials in a 0.2 ml PCR tube on ice just prior to use:

Absolute Master Mix	10µl
Forward primer, 5-10 µM	1µl
Reverse primer, 5-10 µM	1µl
DNA template	1µl
Add ddH_2O to make volume up to	20µl

2. Mix gently and briefly centrifuge.
3. Cap the tubes tightly to avoid expulsion and evaporation.
4. 4. Place the tubes in thermal cycler and process according to recommended thermal cycler conditions; initial denaturation at 94°C for 3-5 minutes, 30-40 cycles of denaturation at 94°C for 30 seconds, annealing (Tm of primer – 5) for 1 minute, extension at 72°C for 2 minutes and 1 cycle of final extension at 72°C for 7-15 minutes.
5. After the PCR reaction, load the PCR product on agarose gel directly.
6. Use the UV or blue-light to visualize the gel.

Caution

1. During operation, always wear a lab coat, disposable gloves, and protective equipment.
2. Not intended for any animal or human therapeutic or diagnostic uses.