



## Taq DNA Polymerase Master Mix (1000 rxns)

Zellbio GmbH (Germany)

CAT No. ZX-22116-1000

[www.zellx.de](http://www.zellx.de)

medium or high throughput applications (e.g. colony screening) | PCR fragments amplification for TA or GC cloning | High-throughput PCR

**!!! Caution: This product is for Research Use Only. Not for *in-vitro* Diagnostics !!!**

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Please read this insert completely prior to using the product.

## Introduction

ZellX® Taq DNA Polymerase Master Mix is an optimized ready-to-use master mix that contains all PCR reaction reagents including dNTPs, PCR buffer, MgCl<sub>2</sub> and Taq DNA polymerase (except primers and DNA template) needed for running conventional PCR reactions. containing extra nucleotides (preferentially adenine) without template at 3' ends results in 3' overhangs PCR fragments which allows the popular TA or GC cloning. The ZellX® Taq DNA Polymerase Master Mix formulation saves time and eliminates or decreases the risk of error and contamination due to a reduced number of pipetting steps.

## Materials supplied in the Kit

| <i>Component</i>                          | <i>Quantity</i> |
|---|-----------------|
| <b>Taq DNA Polymerase Master Mix (2X)</b> | 8 x 1.25 mL     |

## Storage instruction

All reagents should be stored at -20°C upon receipt. Avoid repeated freezing and thawing.

## Materials required but not supplied

Precision pipettes and disposable filter pipette tips (RNase & DNase free)

Nuclease-free tubes / strips / plates corresponding to the PCR device

## Precautions

This kit should only be used by qualified personnel who have had laboratory safety instruction. The complete insert should be read and understood before attempting to use the product.

## General remarks

- The instruction must be strictly followed. PCR machine / Thermocycler must be turned on and programmed in advance to avoid delays after setting up the reactions.
- Pipette tips should not be used more than once to prevent cross contamination.
- Reagents of different batches should not be mixed or used after their expiration dates.

## Assay Procedure

### For 20 µL reaction

- Thaw Master Mix on ice and mix them well. Collect liquid at the bottom of the tube with a quick spin.
- Set up the following reaction mixture.

| <i>Component</i>           | <i>Quantity</i>                                    |
|----------------------------|--|
| <b>qPCR Master Mix</b>     | 10 µL  |
| <b>Forward Primer</b>      | 0.75 µM  |
| <b>Reverse Primer</b>      | 0.75 µM  |
| <b>DNA template</b>        | 30-75 ng (Plasmid DNA)<br>100-500 ng (Genomic DNA) |
| <b>Nuclease-Free Water</b> | Up to 20 µL  |

Mix reagents thoroughly, and transfer to the thermocycler.

- Run the appropriate PCR cycling protocol on your PCR instrument

| <i>Step</i>               | <i>Number of Cycles</i> | <i>Temperature</i> | <i>Duration</i> |
|---------------------------|-------------------------|--------------------|-----------------|
| <b>Initial activation</b> | 1                       | 94°C               | 5 min           |
| <b>Amplification</b>      | 25-35                   | 94°C               | 35 sec          |
|                           |                         | TM                 | 35 sec          |
|                           |                         | 72°C               | 1min/kb         |
| <b>Cooling</b>            | 1                       | 72°C               | 7 min           |
|                           |                         | 4°C                | ∞               |

- The appropriate PCR cycling protocol must be optimized by the end user
- high primer concentrations result in nonspecific amplification and should be avoided