

qPCR Master Mix DLP1
Cat.-No: 190, 100 rcs (2 x 1,25 ml)

Features:

- optimized realtime PCR Mastermix using probe based detection (e.g. FRET, Molecular Beacons or TaqMan)
- The Master mix contains dUTP instead of dTTP
- The qPCR / RT-PCR Mastermix DLP1 is ready-to-use and is optimized for high specificity and sensitivity because of optimized reaction buffer
- easy to use because ready-to-use Master Mix for block based PCR Cycler
- The Master Mix can be used with ROX as reference dye (1x concentrated)

Applications:

- Detection and quantification of DNA and cDNA targets
- Profiling gene expression
- Microbial detection
- Viral load determination

Description:

The Master Mix contains all reagents required for qPCR (except template and primer) in a premixed 2x concentrated ready-to-use solution. The high specificity and sensitivity of the mix is achieved by an optimized hot-start polymerase. Its activity is blocked at ambient temperature and switched on automatically at the onset of the initial denaturation. The thermal activation prevents the extension of non-specifically annealed primers and primer-dimer formations at low temperatures during PCR setup.

The mix contains dUTP instead of dTTP and allows an UNG (Uracil-N-Glycosylase) treatment at the onset of thermal cycling to prevent carry-over contaminations of DNA from previous PCR reactions.

Concentration: The Master mix is 2x concentrated

List of components:

Hot-Start Polymerase for qPCR, dATP, dCTP, dGTP, dUTP, optimized reaction buffer with KCl and MgCl₂, stabilizers and enhancers, PCR-grade water

Transportation: with blue ice

Storage: at 4°C for 3 months, at -20°C for more than 12 months

Usage:

| Components | Volume per reaction | final conc. |
|--|--|-------------|
| 2X qPCR / RTD-PCR Master mix DLP1 | 25 µl | 1x |
| Up-stream primer (10 µM stock) | 1,5 µl (range: 0,5-2.5 µl) | 300 nM |
| Down-stream primer (10µM stock) | 1,5 µl (range: 0.5-2,5 µl) | 300 nM |
| Template DNA | 5 µl (0.1-15 ng/ml plasmid DNA) (1-10 µg/ml genomic DNA) | < 500ng DNA |
| Sterile dest. Water (included) | up to 50 µl total reaction volume | |

- vortex all solutions carefully before using and before PCR
- may you add the enzyme mix after Template DNA
- an individual optimization of annealing temperature may be necessary for new combinations of primers and Template DNA

.. a good decision ..

General Thermo-Cycler protocol for qPCR / RTD-PCR Master mix:

| Step | Time | Temperature |
|----------------------|-----------------------|-------------|
| Initial denaturation | 1-3 min | 95°C |
| 35-50 Cycles: | | |
| Denaturation | 15-30 sec | 95°C |
| Annealing | 30-65 sec | 55-65°C |
| Extension | 30 sec (per 500bp) | 72-75°C |

Note:

- an individual optimization of annealing temperature may be necessary for new combinations of primers and Template DNA

Ordering information:

| Cat.-no | Description | Amount |
|---------|----------------------|----------------|
| S190 | qPCR Master mix DLP1 | 100 rcs / 50µl |