

## qPCR Master Mix DLP2

Cat.-No: S200 - 100 rcs, 2x1,25 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 Master contains UDG (Uracil-Glycosylase)
- The qPCR / RTD-PCR Master mix DLP is ready-to-use and is optimized for high specificity and sensitivity because of optimized reaction buffer
- easy to us because ready-to-use Master Mix
- 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 offer dUTP instead of dTTP to prevent carry-over contaminations of DNA from previous PCR reactions. It contains optimized UDG (Uracil-Glycosylase) for the treatment at the onset of thermal cycling.

**Concentration:** The Mastermix is 2x concentrated

### List of components qPCR / RTD-PCR Master mix:

Hot-Start Polymerase for qPCR, dATP, dCTP, dGTP, dUTP, optimized reaction buffer with KCl and MgCl<sub>2</sub>, Uracil-Glycosylase (UDG), 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 DLP2, with UNG	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	

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- 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

### General Thermo-Cycler protocol:

Step	Time	Temperature
UNG treatment	2 min	50°C
Initial denaturation	2-3 min	95°C
<b>35-50 Cycles:</b>		
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
S200	qPCR Master mix DLP2	100 rcs / 50µl

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