## qPCR Master Mix DLP6
## Cat.-No: S225 - 100 rcs (2x1,25 ml)

**Features:**
- The Master mix contains dUTP instead of dTTP
- The Master contains UDG (Uracil-Glycosylase)
- The Mix contains ROX (100nM) as passive Reference dye (it provides a baseline in multiplex reactions)
- The qPCR / RTD-PCR Master mix DLP6 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

**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 and UDG to prevent carry-over contaminations of DNA from previous PCR reactions.

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

**List of components qPCR / RTD-PCR Master mix:**
Hot-Start Polymerase for qPCR, dATP, dCTP, dGTP, dUTP, ROX, UNG, optimized reaction buffer with KCl and $MgCl_2$, 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, **Note:** protect from light

**Usage:**

| Components | Volume per reaction | final conc. |
|---|---|---|
| **2X qPCR / RTD-PCR Master mix DLP6, 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<br>(0.1-15 ng/ml plasmid DNA)<br>(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

**General Thermo-Cycler protocol:**

**Note:** working with EvaGreen just select the optical setting for FAM or SYBR Green at the cycler

| Step | Time | Temperature |
|---|---|---|
| UDG treatment | 1x2 min | 50°C |
| Initial denaturation | 1-3 min | 95°C |
| **35-50 Cycles:**<br>Denaturation<br>Annealing<br>Extension | <br>15-30 sec<br>30-65 sec<br>30 sec<br>(per 500bp) | <br>95°C<br>55-65°C<br>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 |
|---|---|---|
| S225 | qPCR Master mix DLP6 | 100 rcs / 2,5 ml |