

SuperHot Mastermix RT for qPCR/real-time PCR

Features:

- The Master Mix (2X) offers both: high sensitivity and specificity
- Time saving ready-to-use qPCR Mastermix
- repeatable and reliable results
- efficient PCR for a wide range of template concentrations
- activation time < 3 min

Applications:

- Realtime PCR and quantitative PCR e.g. with SybrGreen, EvaGreen or probes
- High-throughput PCR
- Multiplex PCR
- Low copy targets PCR

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.

Concentration: The Mastermix is 2x concentrated

List of components qPCR / RTD-PCR Master mix.

Hot-Start Polymerase (m-Superhot-Taq) for qPCR, dATP, dCTP, dGTP, dTTP, reaction buffer with stabilizers and enhancers, 1 Tube PCR-grade water, 1 Tube MgCl₂

Quality control:

- Performance and purity tests
- Endodeoxyribonuclease Assay
- Real time PCR Test with SmartCycler II

Transportation: on blue ice

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

Components	Volume per reaction	final conc.
2X qPCR / RTD-PCR Master Mix RT	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
reference dye (optional)	x µl	NA
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

Note: Do not use DMSO or Formamide

General Thermo-Cycler protocol:

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
S240	qPCR Master mix E1 (2x1,25 ml)	100 rcs / 50µl