



2x qPCR Probe Master Mix - no ROX

| Article | Content |
|--------------|-----------------------------|
| SL-9802-smp | 1 ml, 100 rxn × 20 µl |
| SL-9802-5ML | 5 x 1 ml, 500 rxn × 20 µl |
| SL-9802-10ML | 10 x 1 ml, 1000 rxn × 20 µl |
| SL-9802-20ML | 20 x 1 ml, 2000 rxn × 20 µl |



Long-Term Storage
at -20°C in the dark

Short-Term Storage
at 4°C in the dark

DESCRIPTION

Our **primaQUANT PROBE 2x qPCR Master Mix** is an optimized ready-to-use mixture for probe-based assays such as Taqman®, Beacons and MGBs. It contains a modified HotStart DNA Polymerase, as well as dNTPS and MgCl₂. The sophisticated buffer system provides fast kinetics and target amplification even for difficult templates.

The **primaQUANT 2x Master Mix** contains all components - you just need to add primers and template DNA/cDNA.



DID YOU KNOW?

- **primaQUANT PROBE** is also offered as a blue-colored mix for better handling.
- For qPCR cyclers requiring other concentrations of ROX, **primaQUANT PROBE** is also available with low concentrations of ROX or without ROX.



Recommended Reaction Mixture per Well



BEFORE YOU START

- After thawing, please **invert the Master Mix tube 6-8 times**.
- **Do not vortex** the Master Mix to avoid damaging the enzyme.

| Component | Stock Concentration | 20 μ l Reaction | 10 μ l Reaction | Final Concentration |
|--------------------------|---------------------|----------------------|----------------------|-----------------------------------|
| 2x primaQUANT Master Mix | 2x | 10 μ l | 5 μ l | 1x |
| Forward Primer | 4 μ M | 1 μ l | 0.5 μ l | 200 nM (100 - 400 nM recommended) |
| Reverse Primer | 4 μ M | 1 μ l | 0.5 μ l | 200 nM (100 - 400 nM recommended) |
| Probe | 8 μ M | 1 μ l | 0.5 μ l | 400 nM (200 - 600 nM recommended) |
| Template DNA | - | variable | variable | 0.1 - 10 ng per reaction |
| Sterile Water | - | adjust to 20 μ l | adjust to 10 μ l | - |



NOTE

For maximum efficiency and specificity, adjustments of annealing temperature as well as extension time, primer/probe concentration and template concentration may be needed.

CALCULATOR TOOL

Please feel free to download our Excel sheet calculator to calculate the necessary volumes:
calculator.steinbrenner-laborsysteme.de



qPCR
KnowledgeCenter



Standard Protocol



NOTE

- For the majority of qPCR assays, standard cycling conditions can be applied for the majority of qPCR assays out-of-the box.
- However, cycling conditions strongly depend on the primer, probe, amplicon and input material and thus some of these factors might need adjustments.

3-STEP PROTOCOL

| Step | Time | Temperature | |
|----------------------|-----------------|-----------------------------|----------------|
| Initial Denaturation | 1 - 3 minutes | 92°C - 95°C | |
| Denaturation | 5 - 10 seconds | 92°C - 95°C | |
| Annealing | 1 - 5 seconds | 60°C depending on primer | 25 - 40 cycles |
| Extension | 10 - 20 seconds | 72°C | |

2-STEP PROTOCOL

| Step | Time | Temperature | |
|-----------------------------------|-----------------|-----------------------------|----------------|
| Initial Denaturation | 1 - 3 minutes | 92°C - 95°C | |
| Denaturation | 5 - 10 seconds | 92°C - 95°C | |
| Annealing / Extension combined | 10 - 20 seconds | 60°C depending on primer | 25 - 40 cycles |



Ultra-fast Protocol



NOTE

- Ultra-fast cycling conditions highly depend on the ramping rate of your qPCR cycler, primer, probe, amplicon and input material and thus might need adjustments.
- Ultra-fast cycling conditions can be applied for the majority of qPCR assays out-of-the box, provided that your primer/probe sets do not show unspecific binding.

3-STEP PROTOCOL

| Step | Time | Temperature | |
|----------------------|---------------|-----------------------------|----------------|
| Initial Denaturation | 1 minute | 92°C - 95°C | |
| Denaturation | 1 - 5 seconds | 92°C - 95°C | 25 - 40 cycles |
| Annealing | 1 - 5 seconds | 60°C depending on primer | |
| Extension | 1 second | 72°C | |

2-STEP PROTOCOL

| Step | Time | Temperature | |
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Applications

Probe-based quantitative PCR

- TaqMan® Probes
- Any kind of Dual-Labeled Hydrolysis Probe
- Molecular Beacons
- Scorpion Probes

DNA Genotyping

DNA SNP Analysis

RNA and miRNA Expression

Multiplexing (up to 4 colors)

Transcript Variant Analysis

QUALITY CONTROL PROCEDURE

Our **primaQUANT PROBE 2x qPCR Master Mix** undergoes stringent quality controls. Each lot is tested in a probe-based qPCR with cDNA and lambda DNA input.

Enzyme purity and homogeneity of > 98 % is validated using a Bioanalyzer SDS protein electrophoresis.

All **primaQuant** Master Mixes are free of detectable endonuclease- & exonuclease activity:

- Incubation of 1 µg of plasmid DNA with 5 U for 4h at 37°C and 72°C
- Incubation of 1 µg of a DNA size standard with 5 U for 4h at 37°C and 72°C

For more information, please visit our website: www.steinbrenner.de



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Further Products

Products that may also interest you

