

MedixMDx qRT-Probe Mix Separate-ROX Cat. No: MX2104

Product Information Leaflet

Description

MedixMDx qRT-Probe Mix is a universal one-step probe mix for robust, sensitive, and fast RT-qPCR. The mix uses state-of-the-art technologies with an antibody-regulated hot-start Taq polymerase and reverse transcriptase for efficient cDNA synthesis and real-time PCR amplification in a single reaction chamber or tube. The optimized buffer chemistry and PCR enhancers, RNase inhibitor, and stabilizers enable rapid and sensitive RT-qPCR.

MedixMDx qRT-Probe Mix is compatible with several probes such as TaqMan® and Scorpions®. This allows rapid detection and quantification of a variety of RNA templates, such as mRNA, viral RNA, and total RNA. The kit includes an efficient thermostable reverse transcriptase and an RNase inhibitor to prevent degradation of RNA templates by RNases.

Kit components

| Component | *Cat. no. MX2104-1 100 rxn | *Cat. no. MX2104-5 500 rxn |
|-------------------------------|----------------------------------|----------------------------------|
| MedixMDx qRT-Probe Mix NO ROX | 1 mL | 5 mL |
| 20x RTase Amp | 1 X 0.1 mL | 1 X 0.5 mL |
| 50 µM ROX Additive | 1 X 0.2 mL | 1 X 0.2 mL |

*Other pack sizes or bulk orders are available upon request.

Storage and shipment

Transport with an ice pack or on dry ice (for shipments taking more than 2 days). The reagents should be stored between -30°C and -15°C upon arrival. The reagents are stable for 12 months if stored correctly.

Reaction mastermix set-up

The recommended reaction mastermix set-up for a 20 µL reaction volume is shown in the table below.

| *Reagent | Volume (µL) | Final concentration |
|---------------------------|--------------------------|------------------------------|
| 2x MedixMDx qRT-Probe Mix | 10 | 1x |
| ∞Forward primer | X | 100–500 nM |
| ∞Reverse primer | X | 100–500 nM |
| ∞Probe | X | 50–250 nM |
| 20x RTase Amp | 0.2 | Titrate between 0.1 and 1 µL |
| RNA template | 2–8 | Variable |
| Nuclease-free water | Up to 20 µL final volume | |
| Total volume | 20 µL | |

*If your qPCR instrument requires ROX correction, add ROX additive to the mastermix at a final concentration of 500 and 50 nM for HI-ROX and LOW-ROX instruments, respectively.

∞Primers and probes should be specific to the target DNA/RNA of interest. The recommended T_m for primers is between 56°C and 60°C, and the T_m for probes should be between 65°C and 70°C.

Instrument and program set-up

| Number of cycles | Step | Temperature | Time |
|------------------|------------------------|-------------|--------|
| 1 | *Reverse transcription | 45–55°C | 10 min |
| 1 | Polymerase activation | 95°C | 2 min |
| 40 | Denaturation | 95°C | 5 sec |
| | **Annealing/extension | 60°C | 30 sec |

*The reverse transcription step should be performed at 45°C, except when the RNA template has a complex secondary structure. The reverse transcription time can also be increased to 20 minutes.

**The annealing/extension step can be reduced to 20 seconds.

Technical information and support

For technical enquiries or assay development support, please contact us via e-mail at: mdx@medixbiochemica.com. Additional information and technical resources are available on our website at: www.medixbiochemica.com/en/MedixMDx.