

MedixMDx qRT-PCR Lyo ready mix Cat. No: MX6102

Product Information Leaflet

Description

MedixMDx qRT-PCR Lyo ready mix is a universal one-step probe mix that is ready to be lyophilized to produce stable reagents at room temperature. Upon addition of target specific primers/probes and reverse transcriptase (RTase Lyo) to the mastermix, the mixture is lyophilized directly, without the need to add additional excipients.

MedixMDx qRT-PCR Lyo ready mix allows 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 excipients, buffer chemistry, PCR enhancers, RNase inhibitor, and stabilizers enable rapid and sensitive RT-qPCR.

MedixMDx qRT-PCR Lyo ready 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 | *MX6102-5 500 rxn | *MX6102-100 10,000 rxn |
|-------------------------------------|----------------------|---------------------------|
| MedixMDx qRT-PCR Lyo ready mix (2x) | 4 x 1.25 mL | 100 mL |
| RTase Lyo (10,000x) | 2 µL | 0.02 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-PCR Lyo ready mix | 10 | 1x |
| ∞Forward primer | X | 100–500 nM |
| ∞Reverse primer | X | 100–500 nM |
| ∞Probe | X | 50–250 nM |
| *RTase Lyo (10,000x) | 0.002 | Titrate between 0.1 and 1x |
| RNA template | 2–8 | Variable |
| Nuclease-free water | Up to 20 µL final volume | |
| Total volume | 20 µL | |

∞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.

*A 100x working stock of 10,000x RTase Lyo enzyme can be prepared using an appropriate glycerol-free buffer.

Instrument and program set-up

| Number of cycles | Step | Temperature | Time |
|------------------|-----------------------|-------------|---------|
| 1 | Reverse transcription | 50°C | 10 min |
| 1 | Polymerase activation | 95°C | 1–2 min |
| 40 | Denaturation | 95°C | 5 sec |
| | **Annealing/extension | 60°C | 30 sec |

*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.