

## MedixMDx HiPlex qRT-Probe Mix No-ROX Cat. No: MX2105

### Product Information Leaflet

#### Description

MedixMDx HiPlex qRT-Probe Mix is an advanced formulated one-step qRT-PCR probe mix for highly sensitive, rapid, and robust detection of RNA target templates. MedixMDx HiPlex qRT-Probe Mix uses state-of-the-art technologies with an antibody-regulated hot-Start Taq polymerase and ultra-sensitive 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 HiPlex qRT-Probe Mix is formulated as a 4x mix, which enables extensive multiplexing and means larger volumes of RNA templates can be added to reactions, further enhancing the sensitivity of detection.

MedixMDx HiPlex 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

Kit size*	MedixMDx HiPlex qRT-Probe Mix (4x)	HighScript RTase (20x)
<b>MX2105-1</b> 200 rxn (1 mL)	1 mL	0.2 mL
<b>MX2105-10</b> 600 rxn (3 mL)	3 X 1 mL	0.6 mL
<b>MX2105-100</b> 10,000 rxn (50 mL)	50 mL	5 mL
<b>MX2105-1000</b> 100,000 rxn (500 mL)	500 mL	100 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
4x MedixMDx HiPlex qRT-Probe Mix	5	1x
∞Forward primer	X	100–500 nM
∞Reverse primer	X	100–500 nM
∞Probe	X	50–250 nM
20x HighScript RTase	1	1x
RNA template	2–12	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.

#### Instrument and program set-up

Number of cycles	Steps	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](mailto:mdx@medixbiochemica.com). Additional information and technical resources are available on our website at: [www.medixbiochemica.com/en/MedixMDx](http://www.medixbiochemica.com/en/MedixMDx).