



MorreRT Master Mix (+ gDNA remove Mix)

The MorreRT Master Mix For Fast cDNA Synthesis

The MorreRT Master Mix(+gDNA remove mix) , optimized from M-MLV (RNase H-) Reverse Transcriptase, is a new generation reverse transcriptase with highly improved heat stability and cDNA synthesis efficiency. The residual genomic DNA in RNA template can be removed rapidly and completely with the 4xgDNA Remove Mix.

The MorreRT Reverse Transcriptase Mix for qPCR is specially designed for 2-step RT-qPCR. The 5× Mix contains all necessary components needed for reverse transcription, including Buffer, dNTPs, MorreRT Reverse Transcriptase, RNase inhibitor, and Random primers/Oligo-(dT)₂₃ primer mix. The MorreRT Reverse Transcriptase Mix for qPCR (+gDNA Wiper) has been specially optimized for qPCR. For example, the ratio of Random primers/Oligo-(dT)₂₃ primer is optimized to enable cDNA synthesis at any region of the template RNA and to ensure the repeatability of qPCR results. The cDNA products are compatible for SYBR- or probe-based qPCR, such as 2xMorreSYBR qPCR Master Mix (MORREBIO, #MSYBR) or 2xMorreProbe qPCR Master Mix (MORREBIO, #MProbe1250).

Order Information

Product	Cat. No.	Quantity
MorreRT Master Mix (+ gDNA Remove mix)	MRTM-GR100	100 rxn

Contents of Kits

Component	Amount
RNase free ddH ₂ O	2 x 1 mL
4x gDNA remove mix	400 µL
5x MorreRT Reverse Transcriptase Mix	400 µL
5x No MorreRT Control Mix	40 µL

Storage

All components should be stored at -20°C.

Additional Materials Required

RNase-free microtube (1.5 mL) or PCR tube (0.2 mL).

PCR instrument or water bath.

Ice bath.

Protocol

Note:

1. Use high quality total RNA with high integrity for reverse transcription.
2. To avoid RNase contamination, please keep the experiment area clean, wear clean gloves and masks, and use RNase-free tubes and tips.

1. Removal of Genomic DNA.

Mix the following components in a RNase-free microtube by pipetting, and incubate at 42°C for 2 min.

Component	Volume
RNase free ddH ₂ O	to 16 µL
4x gDNA remove mix	4 µL
RNA Template	Total RNA: 1pg- 1µg

2. Add 4 µL of 5X MorreRT Reverse Transcriptase Mix to the mixture of Step 1 (16 µL) and mix thoroughly.

Component	Volume
5x MorreRT Reverse Transcriptase Mix	4 µL
Mixture of Step1 (16 µL)	16 µL

No RT Control (Optional):

No RT Control is a negative control which contains no Reverse Transcriptase and is used to indicate whether there is residual genomic DNA in RNA template. Add 4 µL of 5x No MorreRT Control Mix to the mixture of Step 1 (16 µL) and mix thoroughly.

3. Reverse transcription.

Temperature	Duration
50°C*	15 min
85°C	5 sec

Note: * For templates with complex secondary structure or high GC-content, the temperature can be increased to 55°C, which will benefit the yield.

4. The products can be used for PCR immediately or be stored at -20°C for 6 months. However, it is recommended to store at -80°C and make aliquots to avoid repeated freezing and thawing.