

Manual

Product name: All-in-One 5X Reverse Transcription Kit

Cat #: 5AIO-100, 5AIO-200, 5AIO-OEM

Description:

MCLAB's All-in-One 5X Reverse Transcription Mix Kit is optimized to synthesize first strand cDNA for RT-PCR and RT-qPCR. MCLAB's QuantumScript™ HD Reverse Transcriptase is a new engineered version with a unique mutation that has increased sensitivity, improved specificity, maximum thermal stability and reduced RNase H activity. The optimal first-strand cDNA synthesis temperature for this enzyme is 50°C. The reverse transcription reaction at higher temperatures improves cDNA yields for difficult RNA transcription. This Pre mixed 5X concentrated solution included all necessary components for first-strand synthesis. With the mixture of 5X buffer, dNTPs, MgCl₂, DTT, primers (optimized mixture oligo (dT) and random primers), RNase inhibitors, QuantumScript™ HD Reverse Transcriptase, the first strand cDNA synthesis process is greatly simplified.

Features:

- Easy-to-use pre-mixed package
- High fidelity, yield and sensitivity
- Broader linear range
- Complete cDNA synthesis guaranteed
- Maximum sample volume available
- Robust and high throughput
- Work with difficult sequences

Components:

5X RT buffer, dNTPs, DTT, RNase cocktails, Primer mixer and QuantumScript™ HD Reverse Transcriptase

Recommended Storage Condition: -20 °C

Protocol:

Add the followings to a 0.2 ml PCR tube (or 96 well plate) on ice.

5X All in one RT Mix	4 µl
RNA	0.5-16 µl

Add RNase free H₂O to a final volume of 20 µl for each reaction.

Incubate the tube or plate at:

25°C	5 minutes
50°C	30 minutes
85°C	5 minutes
4°C	Hold

After finish reverse transcription, use 1-5 µl of cDNA for PCR reaction. The RT production can be stored at -20°C.