

PRODUCT INFORMATION

Catalog No.:	G8988		
Product Name:	miRNA All-in-One cDNA Synthesis Kit		
Size:	20 rxns		
Kit Components:	2X miRNA cDNA Synthesis SuperMix	200µ1	
	Nuclease-free H ₂ O:	1000ul	
	Universal miRNA qPCR Reverse Primer	150µl @10µM	
	Special Note: for qPCR with the cDNA synthesized using this kit, the Universal miRNA qPCR Reverse Primer has to be used together with the specific forward primers.		
Description:	The miRNA All-In-One cDNA Synthesis Kit is a complete system for efficient synthesis of first strand cDNA of miRNA from total RNA templates. This optimized kit comes with two components, the 2X miRNA cDNA Synthesis SuperMix and Enzyme Mix, enabling a hassle-free set-ups with minimal potential for contamination and more quantitatively accuracy due to significantly reduced pipetting or small volume reagents and samples. The kit contains all miRNA synthesis-required reagents including Poly(A) Polymerase and Reverse Transcriptase, a unique miRNA Oligo d(T) adapter that anneals to the A-tailed miRNA template, and RNaseOFF Ribonuclease Inhibitor to protect RNA template from degradation.		
Advantages:	 Convenience: one tube, one reaction, one pipetting for RT reagents. Accuracy: ensures sample to sample consistency. Capacity: capable for any complex RNA templates. Flexibility: large RNA sample or reaction volume. Sensitivity: work as well at low concentration of RNA samples. 		
Storage:	Store at -20°C.		





Protocol:

- 1. Thaw RNA sample and all reagents on ice. Mix each solution completely but gently.
- 2. Assemble the following components in a tube on ice:

Components	Volume	
2X miRNA cDNA Synthesis SuperMix	10µl	
RNA template	1-8µl (200ng miRNA or 2µg total RNA)	
Enzyme Mix	2µl	
Nuclease-free H ₂ O:	Up to total volume 20µl	

- 3. Mix well but gently and briefly centrifuge the tube at high speed.
- 4. Incubate the mixture at 37°C for 30 minutes, followed by 15 minutes incubation at 50°C.
- 5. Stop the reaction by heating it at 85°C for 10 min. Chill the tube on ice.
- 6. Collect the mixture by briefly centrifugation at high speed. The cDNA is now ready for immediate downstream applications or leave at -20°C for long-term storage.

Extra Notes:

- Both small RNA and total RNA can be used for first cDNA synthesis, although small RNA may give higher yields and improved purity for the synthesized products.
- RNA samples should be free of genomic DNA contamination.
- For qPCR using the synthesized cDNA with this kit, the Universal miRNA qPCR Reverse Primer has to be used, with your specific forward miRNA primers.

Unit Definition: One unit incorporates 10nmoles of dNTPs into acid-insoluble material in 30 minutes at 74°C.