Ver. HB230116

Hifair™ miRNA 1st Strand cDNA Synthesis Kit (Tailing)

Product description

MicroRNAs are a class of non-coding RNAs with a length of about 22 nt, which play an important role in the regulation of gene expression in plants and animals. This kit uses Poly(A)-tailing method to perform reverse transcription from miRNA first-strand to cDNA. The 2×Hifair™ miRNA RT buffer in the product contains all the raw materials and primers for miRNA Poly(A)-tailing reaction and reverse transcription reaction. Careful optimization ensures that Poly(A) modification process and reverse transcription process can be performed simultaneously and efficiently in miRNA 3' end.

This product is recommended to be used in conjunction with our company's Hieff™ miRNA Universal qPCR SYBR Master Mix (Cat#11171) for optimal experimental results.

Components

Components No.	Name	11148ES50 (50T)
11148-A	Hifair™ miRNA RT enzyme mix	87.5 μL
11148-B	2×Hifair™ miRNA RT buffer	250 μL
11148-C	RNase-free H_2O	10 mL
11148-D	Universal Reverse Primer (10 μmol/L)	4 mL
11148-E	U6 Forward Primer (10 μmol/L)	500 μL
11148-F	U6 Reverse Primer (10 μmol/L)	500 μL

Specifications

Final product type	cDNA (First-Strand)
PCR method	RT-PCR
Reaction format	Isolated fraction
Sample type	miRNA
Optimal reaction temperature	37°C
Reverse transcriptase	MMLV

Storage

The product should be stored at -25℃~-15℃ for 1 year.

Instructions

1. Reaction System

Components	Volume (μL)	Final Concentration
2× Hifair™ miRNA RT buffer	5	1×
Hifair™ miRNA RT enzyme mix	1.75	-
RNA*	-	X
RNase-free H_2O	Up to 10	-

[Note]: *The concentration of total RNA and extracted miRNA in range of 10 pg-2 μg, the minimum copy number of synthesized miRNA can reach 60 copies, and the input volume does not exceed 3.25 μL.

2. Reaction program

Reaction Temperature	Reaction Time	Remark
37°C	50 min	miRNA Poly(A)-tailing and reverse transcription
85°C	5 sec	Enzyme inactivation process

[Note]: The reverse transcript can be directly detected by qPCR. In order to avoid the inhibition of the qPCR reaction by the reverse transcription system, the product can be diluted 10-1000 times before use. If downstream experiments are not performed in a short time, it can be stored at -20°C. For long-term storage, it is recommended to store at -80°C after aliquoting to avoid repeated freezing and thawing.

Notes

1. Dissolve at room temperature, store in ice box or on an ice bath after dissolution, and store at -20°C immediately after use.
2. It is recommended to amplify the fragment within 1 kb in length for the best amplification efficiency.
3. When experimenting, please use RNase-free consumables to avoid unnecessary losses affecting the experimental results.
4. For your safety and health, please wear lab coats and disposable gloves for operation.
5. This product is for research use ONLY!