

# Human miRNA Expression Profiling Service

## Complete Coverage

- Every human miRNA (703 in total)

## Sensitive and Quick

- Results in 2 weeks
- Single copy sensitivity

## Highly Specific

- Discrimination of 1 nucleotide mismatch
- Complete elimination of primer dimer
- Highly specific to mature miRNA only

## Competitive Price

- Depending on sample type

# Human miRNA Expression Profiling Service

miRNAs are 17-24 nucleotide long single stranded RNA that regulate diverse physiological and pathological pathways in different types of cancers and other diseases. Over 700 human miRNAs have been documented.



Though miRNAs are differentially expressed depending on the tissue type, developmental stage and cellular pathway, most miRNAs are characterized due to the lack of sensitive methods.

ABM is the first company to develop qPCR-based human miRNA array which allows quick and easy profiling of miRNA expression pattern in any given sample. Each of the miRNA primers has been validated to be specific and sensitive. This service is more affordable and cost-effective than optimizing your own experiments!

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## Profiling Flowchart

Isolation of total RNA



Poly-(dA) tailing of total RNA



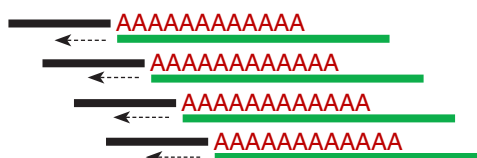
Reverse transcription to generate cDNAs using an universal reverse primer



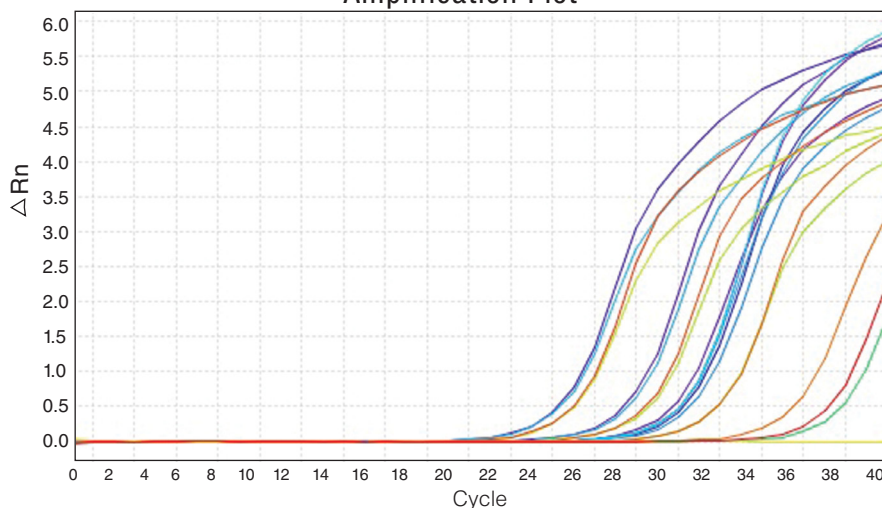
Real time PCR set up using 96/384 well plates containing ready to use mature-miRNA-specific forward primers



Real time PCR data analysis



Amplification Plot



## Specificity Test

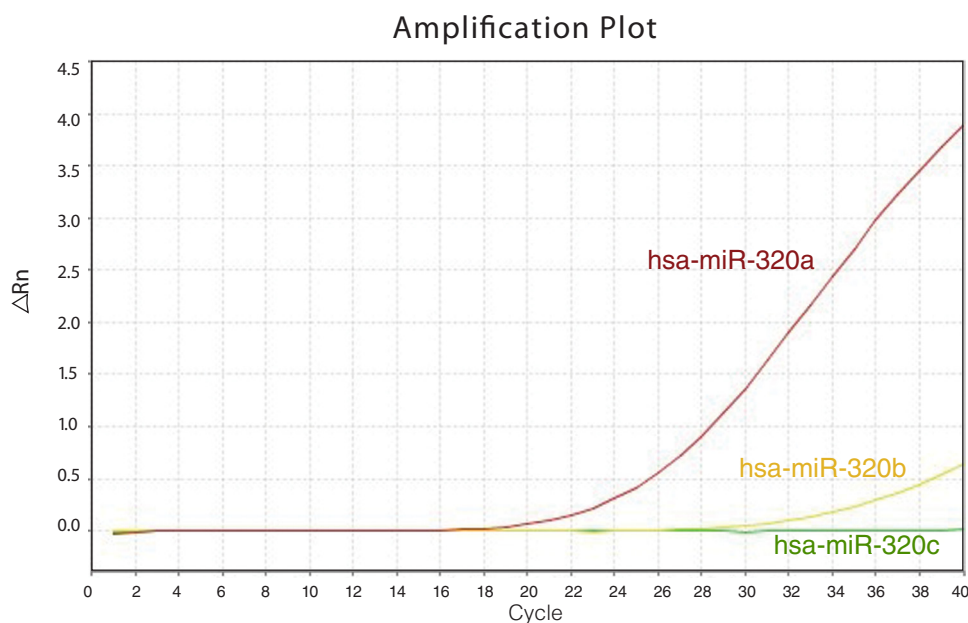
The table below shows the sequence similarity of the hsa-miR-320 family members; the differences in nucleotides between hsa-miR-320a and other family members are indicated in orange. The relative detection by miR-320a primer is calculated using the equation  $100 \times 2^{-\Delta\Delta C_t}$ , where  $\Delta\Delta C_t$  is obtained from  $C_t$  values using  $10^6$  copies of synthetic miRNA.



miRNA Sequences		Relative detection by miR-320a primer
hsa-miR-320a	AAAAGCTGGGTTGAGAGGGCGA	100%
hsa-miR-320b	AAAAGCTGGGTTGAGAGGGC <sup>AA</sup>	0.02%
hsa-miR-320c	AAAAGCTGGGTTGAGAGGG <sup>T</sup>	0.00%

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The amplification plot below shows miR-320a primer's specificity in detecting the synthetic hsa-miR-320a, hsa-miR-320b and hsa-miR-320c.



## Data Analysis

- Your data is analyzed by RT-PCR software offered by ABM
- Visit [www.abmGood.com/admin/login.htm](http://www.abmGood.com/admin/login.htm) to view your result
- Data can be exported into excel format upon request