

miProfile™ Human miRNome miRNA qPCR Array(96-well)

For focused group profiling of human miRNA whole genome expression

Cat. No. QM001-A (21 x 96-well plate, Format A)

Cat. No. QM001-B (21 x 96-well plate, Format B)

Cat. No. QM001-C (21 x 96-well plate, Format C)

Cat. No. QM001-D (21 x 96-well plate, Format D)

Cat. No. QM001-E (21 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 1,700 unique miRNA primers deposited in twenty one 96-well plates.

Introduction

The miProfile human miRNome miRNA PCR array (96-well) is a set of twenty one 96-well plates, covering 1,700 of best characterized and annotated miRNAs based on miRBase V18. Each 96-well plate contains up to 84 pairs of PCR primers (forward: miRNA-specific primer; reverse: universal primer), which are pre-deposited in each well. Each plate also designated 12 control wells for monitoring the efficiency of every step of the experiment - from reverse transcription to qPCR reaction.

- QM001 plate 01: 84 unique miRNA PCR primer pairs
- QM001 plate 02: 84 unique miRNA PCR primer pairs
- QM001 plate 03: 84 unique miRNA PCR primer pairs
- QM001 plate 04: 84 unique miRNA PCR primer pairs
- QM001 plate 05: 84 unique miRNA PCR primer pairs
- QM001 plate 06: 84 unique miRNA PCR primer pairs
- QM001 plate 07: 84 unique miRNA PCR primer pairs
- QM001 plate 08: 84 unique miRNA PCR primer pairs
- QM001 plate 09: 84 unique miRNA PCR primer pairs
- QM001 plate 10: 84 unique miRNA PCR primer pairs
- QM001 plate 11: 84 unique miRNA PCR primer pairs
- QM001 plate 12: 84 unique miRNA PCR primer pairs
- QM001 plate 13: 84 unique miRNA PCR primer pairs
- QM001 plate 14: 84 unique miRNA PCR primer pairs
- QM001 plate 15: 84 unique miRNA PCR primer pairs
- QM001 plate 16: 84 unique miRNA PCR primer pairs
- QM001 plate 17: 84 unique miRNA PCR primer pairs
- QM001 plate 18: 84 unique miRNA PCR primer pairs
- QM001 plate 19: 53 unique miRNA PCR primer pairs
- QM001 plate 20: 84 unique miRNA PCR primer pairs
- QM001 plate 21: 51 unique miRNA PCR primer pairs

Shipping and storage condition

Shipped at room temperate

Stable for at least 6 months when stored at -20°C

Array format

GeneCopoeia provides five qPCR array formats (A, B, C, D, and E) suitable for use with the following real-time cyclers.

Product Data Sheet

Important note: Upon receiving, please check to make sure that the correct array format was ordered to ensure the compatibility with your qPCR instrument.

Plate format	Instrument provider	qPCR instrument model
A (96-well)	Applied Biosystems	5700, 7000, 7300, 7500, 7700, 7900HT (Standard 96-well block), ViiA™7 (Standard 96-well block)
B (96-well)	Applied Biosystems	7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA™7 (Fast block)
C (96-well)	Bio-Rad Laboratories	iCycler iQ®, MyiQ™, iQ™5
D (96-well)	Bio-Rad Laboratories	CFX96™, DNA Engine Opticon™, DNA Engine Opticon 2™, Chromo4™
E (96-well)	Roche Applied Science	LightCycler® 480 (96-well block)

Quality control

1. Each miRNA-specific primer in the miProfile miRNA qPCR array has been experimentally validated to yield a single dissociation curve peak and to generate a single amplicon of the correct size for the targeted miRNA.
2. The positive PCR controls (PCR) have been verified to amplify a single amplicon of the correct size with Ct values around **20±2**.
3. The Spike-in reverse transcription controls (RT) have been verified to amplify a single amplicon of the correct size with Ct values around **20±3**.
4. $R_2 > 0.99$ was observed for high inter/ intra-array reproducibility.

Materials required but not provided

All-in-One™ miRNA First-Strand cDNA Synthesis Kit

All-in-One™ qPCR Mix

Total RNA extraction kit (RNAzol® RT RNA extraction reagent is recommended)

DNase/RNase free tips, PCR reaction tubes, 1.5 ml microcentrifuge tubes

5 ml and 10 ml graduated pipettes, beakers, flasks, and cylinders

10 µl to 1,000 µl adjustable single channel micropipettes with disposable tips

5 µl to 20 µl adjustable multichannel micropipette, disposable tips, and reservoir

qPCR instrument, compatible with gene qPCR arrays ordered

Array layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	1	2	3	4	5	6	7	8	9	10	11	12
B	13	14	15	16	17	18	19	20	21	22	23	24
C	25	26	27	28	29	30	31	32	33	34	35	36
D	37	38	39	40	41	42	43	44	45	46	47	48
E	49	50	51	52	53	54	55	56	57	58	59	60
F	61	62	63	64	65	66	67	68	69	70	71	72
G	73	74	75	76	77	78	79	80	81	82	83	84
H	NC	NC	HK1	HK2	HK3	HK4	HK5	HK6	RT	RT	PCR	PCR

Figure1. Illustration of miProfile miRNA qPCR array (96-well plate)

Product Data Sheet

- **miRNA primer pairs:** Wells 1-84 are designated wells for pre-deposited miRNA primer pairs.
- **NC:** Negative controls, which only have the pre-deposited reverse universal primers.
- **HK1-6:** Six pre-deposited housekeeping snRNAs primer pairs, which can be used as endogenous positive controls as well as for array normalization.
- **RT:** Three replicates of spike-in reverse transcription controls, which can be used to monitor the efficiency of the RT reaction. These pre-deposited primer pairs specifically amplify the cDNA template reversed transcribed from the spike-in exogenous RNA in the sample.
- **PCR:** Three replicates of positive PCR controls, which are used to verify the PCR efficiency by amplifying the pre-deposited DNA template with its specific pre-deposited primer pairs.

miRNA primer list

The primer list can be downloaded from <http://www.genecopoeia.com/product/qpcr-arrays/mirna/mirnoma.php>.

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