# miProfile™ Human Prostate Cancer miRNA qPCR Array

**For focused group profiling of human prostate cancer related miRNA expression**

Cat. No. QM015-A (1 x 96-well plate, Format A)
Cat. No. QM015-B (1 x 96-well plate, Format B)
Cat. No. QM015-C (1 x 96-well plate, Format C)
Cat. No. QM015-D (1 x 96-well plate, Format D)
Cat. No. QM015-E (1 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 84 unique miRNA primers deposited in one 96-well plate.

## Introduction

The miProfile human prostate cancer miRNA qPCR array profiles 84 aberrantly expressed miRNAs most relevant to prostate cancer (PCa). PCa is one of the most prevalent types of malignant tumor in men. Reports indicated miRNA may play a critical role in the pathogenesis of prostate cancer. This plate contains 84 aberrantly miRNA that have been identified in prostate cancer cell lines, providing researchers a convenient way to study the regulation of miRNA expression in human prostate cancer.

- QM015 plate 01: 84 unique miRNA PCR primer pairs

## Shipping and storage condition

Shipped at room temperate
Stable for at least 6 months when stored at -20℃

## Array format

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

**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-OneTM miRNA First-Strand cDNA Synthesis Kit
All-in-OneTM 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)**

- **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/cancer.php.

## Limited Use License

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