miProfile™ Human Ovarian Cancer miRNA qPCR Array

For focused group profiling of human ovarian cancer related miRNA expression

Cat. No. QM013-A (2 x 96-well plate, Format A)
Cat. No. QM013-B (2 x 96-well plate, Format B)
Cat. No. QM013-C (2 x 96-well plate, Format C)
Cat. No. QM013-D (2 x 96-well plate, Format D)
Cat. No. QM013-E (2 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 168 unique miRNA primers deposited in two 96-well plates.

Introduction

The miProfile human ovarian cancer miRNA qPCR array profiles 168 aberrantly expressed miRNAs most relevant to ovarian cancer. Primary ovarian cancer develops silently and usually has a poor prognosis, which means that most cases are not diagnosed until they have reached advanced stages. Alarmingly, up to 80% of those survivors from ovarian cancer will develop chemoresistant terminal recurrent disease within two years. To resolve these problems, the molecular mechanisms behind the pathogenesis of ovarian cancer must be fully characterized. More research has shown that specific miRNAs are misregulated during ovarian tumorigenesis. Studying the critical role of miRNAs in the tumorigenesis process can help to identify the potential specific oncogenic mechanisms and discover potential approaches for diagnosis, prognosis, and therapy response in human ovarian cancers. These arrays provide 168 miRNAs which were reported to be involved specifically in ovarian cancers.

- QM013 plate 01: 84 unique miRNA PCR primer pairs
- QM013 plate 02: 84 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.

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

<table>
<thead>
<tr>
<th>Plate format</th>
<th>Instrument provider</th>
<th>qPCR instrument model</th>
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<tbody>
<tr>
<td>A (96-well)</td>
<td>Applied Biosystems</td>
<td>5700, 7000, 7300, 7500, 7700, 7900HT (Standard 96-well block), ViiA™7 (Standard 96-well block)</td>
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<tr>
<td>B (96-well)</td>
<td>Applied Biosystems</td>
<td>7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA™7 (Fast block)</td>
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<td>C (96-well)</td>
<td>Bio-Rad Laboratories</td>
<td>iCycler iQ®, MyIQ™, iQ™5</td>
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<td>D (96-well)</td>
<td>Bio-Rad Laboratories</td>
<td>CFX96™, DNA Engine Opticon™, DNA Engine Opticon 2™, Chromo4™</td>
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<td>E (96-well)</td>
<td>Roche Applied Science</td>
<td>LightCycler® 480 (96-well block)</td>
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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 $20\pm2$.

3. The Spike-in reverse transcription controls (RT) have been verified to amplify a single amplicon of the correct size with Ct values around $20\pm3$.

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

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- **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

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