# New

# miScript™ miRNA PCR Arrays

#### miRNA expression profiling redefined

The miScript PCR System has always delivered the most robust, specific, and sensitive quantification of miRNAs available. Now, this cutting-edge PCR technology also enables comprehensive profiling of miRNAs for disease research and potential biomarker discovery using extensively verified miScript miRNA PCR Arrays.

#### miScript PCR System provides:

- Disease- and pathway-focused or whole miRNome arrays
- Customizable PCR array solutions
- Robust, sensitive, and reproducible performance
- Free Web-based and automated data analysis tools

#### miRNA expression profiling for your area of interest

The combination of pathway-focused PCR arrays with the specificity, efficiency, and sensitivity of the miScript PCR System provides a reliable method to explore the role of miRNAs in a variety of biological contexts. Using thorough bioinformatics and literature analysis, miRNAs related to a growing repertoire of biological and disease pathways have been identified and incorporated into the miScript miRNA PCR Arrays. This system allows rapid, comprehensive profiling of the most important miRNAs related to your pathway of interest.

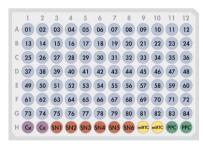
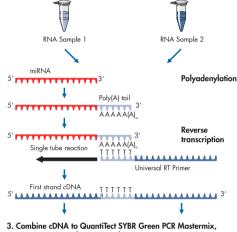


Figure 1. miScript miRNA PCR Array Layout. miScript miRNA PCR Arrays provide miScript Primer Assays for 84 miRNAs involved in your pathway of interest, as well as controls for data normalization, reverse transcription performance, and PCR performance. Data normalization controls include primer assays for C. elegans miR-39 and 6 miScript PCR Controls. The cel-miR-39 assay detects the Syn-cel-miR-39 miScript miRNA Mimic, which can be added to samples, particularly serum or plasma samples, to control for variations during

the preparation of total RNA and subsequent steps. The 5 snoRNAs and 1 snRNA targeted by the miScript PCR Controls have relatively stable expression across tissues and cell types and amplification efficiencies close to 100%. Moreover, they are designed with sequence homologies for human, rat, mouse, and dog, and can therefore be used for all available species.

- 1. Isolate miRNA with the miRNeasy Kit or the miRNeasy FFPE Kit
- 2. Convert miRNA to cDNA in a one-step, single-tube reverse transcription reaction.



 Combine cDNA to QuantiTect SYBR Green PCR Mastermix, miScript Universal Primer, and water.
Aliquot mixture across miScript miRNA PCR Array.

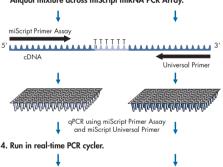


Figure 2. miScript miRNA PCR Array workflow.

data

5. Analyze data.



data

#### Biomarker discovery in human colon tumors

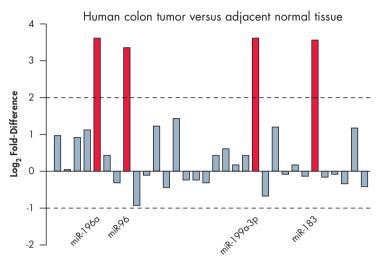


Figure 3. Human Cancer PathwayFinder miScript miRNA PCR Array identifies potential colon cancer biomarkers. Total RNA isolated from human colon tumor and matched adjacent normal tissue was characterized with Cancer PathwayFinder miScript miRNA PCR Arrays containing assays specific for 84 cancer-related human miRNA sequences. Fold differences are calculated from raw  $C_{\tau}$  values normalized to a panel of miScript PCR Controls.

#### Focus on pathway biology

- Complete miRNome
- miFinder
- Cell Differentiation & Development
- Inflammatory Response & Autoimmunity
- Brain Cancer
- Cancer PathwayFinder
- Immunopathology
- Serum & Plasma
- Neurological Development & Disease
- Breast Cancer
- Ovarian Cancer
- Custom Array

### **Ordering Information**

Product	Contents	Cat. no.
miRNome miScript miRNA PCR Array	miRNome panels of miRNA assays	331222
miScript miRNA PCR Array	Pathway or disease panels of miRNA assays	331221
Custom miScript miRNA PCR Array	Custom panels of miRNA assays	331231
miRNeasy Mini Kit (50)	Columns, plasticware, and reagents for 50 preps	217004
miRNeasy FFPE Kit (50)	Columns, plasticware, and reagents for 50 preps	217504
miScript II RT Kit (12)	Reagents for $12 \times 20 \mu l$ cDNA synthesis reactions	218160
miScript SYBR Green PCR Kit (200)	Reagents for 200 x 50 µl PCRs	218073
miScript Primer Assay (100)	miRNA-specific primer for 100 x 50 µl PCRs	Varies*
miScript Precursor Assay (100)	Precursor-specific primer pair for 100 x 50 µl PCRs	Varies*

<sup>\*</sup> Visit GeneGlobe to search for and order these products www.giagen.com/GeneGlobe.

## Discover more, visit www.qiagen.com/miRNA!

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