

# miScript™ miRNA PCR Array

## Human Neurological Development & Disease

For mature miRNA expression profiling using SYBR® Green-based real-time PCR

Cyclers for use with miScript miRNA PCR Array formats

Format	Suitable real-time cyclers	Plate	Cat. no.
A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® MasterCycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara: TP-800	96 well	331221 MIHS-107ZA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96 well	331221 MIHS-107ZC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96 well	331221 MIHS-107ZD
E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™	384 well	331221 MIHS-107ZE
F	Roche® LightCycler® 480 (96-well block)	96 well	331221 MIHS-107ZF
G	Roche: LightCycler 480 (384-well block)	384 well	331221 MIHS-107ZG
R	Rotor-Gene® Q, Rotor-Gene 6000, other Rotor-Gene cyclers	Rotor-Disc® 100	331221 MIHS-107ZR



Sample & Assay Technologies

## Contents

miScript miRNA PCR Arrays Formats A, C, D, and F consist of 2, 12, or 24 PCR array plates. miScript miRNA PCR Arrays Formats E and G consist of 4 PCR array plates. miScript miRNA PCR Arrays Format R consists of 2, 12, or 24 Rotor-Discs. Formats A and D are provided with 24, 144, or 288 Optical Thin-Wall 8-Cap Strips. Formats C and F are provided with 2, 12, or 24 Optical Adhesive Films. Formats E and G are provided with 4 Optical Adhesive Films and 4 sets of 384EZLoad Covers. Format R is provided with 2, 12, or 24 Rotor-Disc Heat Sealing Films.

## Description

The Human Neurological Development & Disease miScript miRNA PCR Array profiles the expression of 84 miRNAs differentially expressed during neuronal development or the progression of neurological diseases. This array provides neuroscience researchers with a convenient way to analyze the miRNAs most relevant to normal nervous system development and/or psychiatric and neurodegenerative disorder progression. Certain miRNAs, such as miR-9, promote neurodevelopment processes such as neurogenesis and synaptic plasticity. Microarray analyses of diseased brain tissues show a variety of significantly dysregulated miRNAs. However, few of these analyses have yet to focus on individual miRNA function and mechanism of action during specific disease processes. The profiling results from this array can serve as a useful marker for neuronal differentiation processes and may yield insights into the molecular mechanisms behind the pathogenesis of neurological disorders. The results can also help enhance basic neurological research since dysregulated developmental processes can lead to neurological diseases, and both often involve similar miRNA-regulated biological pathways. A set of controls present on this array enables data analysis using the  $\Delta\Delta C_t$  method of relative quantification, assessment of reverse transcription performance, and assessment of PCR performance. Using SYBR Green-based real-time PCR, the expression of a focused panel of miRNAs related to neurological research can be easily and reliably analyzed with this miScript miRNA PCR Array.

For further details, consult the *miScript miRNA PCR Array Handbook*.

QIAGEN reserves the right to occasionally redesign individual assays on the miScript Arrays for improved performance. This revision history can be accessed by contacting technical support and supplying the batch numbers from your arrays.

## Shipping and storage

miScript miRNA PCR Arrays are shipped at ambient temperature, on ice, or on dry ice depending on the destination and accompanying products. Upon receipt, store at  $-20^{\circ}\text{C}$ . If stored under these conditions, miScript miRNA PCR Arrays are stable for 6 months after receipt.

**Note:** Ensure that you have the correct miScript miRNA PCR Array format for your real-time cycler

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(see table above).

**Note:** Open the package and store the products at the indicated temperature immediately on receipt.



### Array layout(96- and 384-well [4x96])

**Note:** Wells A1 to H12 of a 96-well plate correspond to wells 1 to 96 of a Rotor-Disc 100.

**Note:** miScript Primer Assays can be ordered for each mature miRNA at

[www.qiagen.com/GeneGlobe](http://www.qiagen.com/GeneGlobe).

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## Related products

Product	Contents	Cat. no.
miScript II RT Kit (12)	For 12 cDNA synthesis reactions: miScript Reverse Transcriptase Mix, 10x miScript Nucleics Mix, 5x miScript HiSpec Buffer, 5x miScript HiFlex Buffer, RNase-Free Water	218160
miScript II RT Kit (50)	For 50 cDNA synthesis reactions: miScript Reverse Transcriptase Mix, 10x miScript Nucleics Mix, 5x miScript HiSpec Buffer, 5x miScript HiFlex Buffer, RNase-Free Water	218161
miScript SYBR Green PCR Kit (200)	For 200 reactions: QuantiTect SYBR Green PCR Master Mix, miScript Universal Primer	218073
miScript SYBR Green PCR Kit (1000)	For 1000 reactions: QuantiTect SYBR Green PCR Master Mix, miScript Universal Primer	218075
miRNome miScript miRNA PCR Array	Array of assays for the human, mouse, rat, or dog miRNome; available in 96-well, 384-well, or Rotor-Disc 100 format	Varies
miScript miRNA QC PCR Array	Array for assessing cDNA sample quality	Varies
miScript Primer Assay (100)	10x miScript Primer Assay (contains one miRNA-specific primer)	Varies
RT <sup>2</sup> PCR Array Loading Reservoirs	12 x 5 ml capacity, irradiation-sterilized loading reservoirs	338162
384EZLoad Covers	Pack of 4 color-coded covers for loading 384-well plates	338125

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, miScript™, Rotor-Gene®, Rotor-Disc® (QIAGEN Group); Roche®, LightCycler® (Roche Group); Applied Biosystems®, ROX™, StepOnePlus™, SYBR®, ViiA™ (Life Technologies Corporation); Eppendorf®, Mastercycler® (Eppendorf AG); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Agilent Technologies); Bio-Rad®, iCycler®, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™, iQ™, MyiQ™ (Bio-Rad Laboratories, Inc.).

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