miScript™ miRNA PCR Array

Human Breast Cancer

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-109ZA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96 well	331221 MIHS-109ZC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96 well	331221 MIHS-109ZD
E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™	384 well	331221 MIHS-109ZE
F	Roche® LightCycler® 480 (96-well block)	96 well	331221 MIHS-109ZF
G	Roche: LightCycler 480 (384-well block)	384 well	331221 MIHS-109ZG
R	Rotor-Gene® Q, Rotor-Gene 6000, other Rotor-Gene cyclers	Rotor-Disc® 100	331221 MIHS-109ZR

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 Breast Cancer miScript miRNA PCR Array profiles the expression of 84 miRNAs known or predicted to alter their expression during breast cancer initiation or progression. This array provides cancer researchers with a convenient way to quickly analyze the miRNAs most relevant to breast tumorigenesis. Breast cancer is a heterogeneous disease with multiple classifications. For example, not all breast tumors express the estrogen receptor, necessary for treatment via selective estrogen receptor modulators (SERMs). In addition, some breast cancers progress under chemotherapeutic treatment and become resistant to certain drugs. Intense research into carcinogenic mechanisms has identified dysregulated genes, either via functional defects due to somatic mutations, or gene expression alterations due to epigenetic changes. miRNAs epigenetically regulate mRNA, and therefore miRNA dysregulation will affect target mRNA expression. Microarray expression analyses of miRNA have discovered potential biomarkers of breast cancer oncogenesis, and many results have been followed up with functional studies. This array includes miRNAs that are dysregulated in estrogen receptor-responsive or drug-resistant breast tumors. miRNAs with known functions in breast cancer are included, as well as miRNAs hypothesized to be involved, either via microarray studies or as a bioinformatically-predicted regulators of known breast cancer genes. The profiling results from this array may yield insights into the molecular mechanisms behind the pathogenesis of breast cancers. A set of controls present on this array enables data analysis using the ΔΔCt 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 breast cancer 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°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 (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.

384		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	96	1		2		3		4		5		6		7		8		9		10		11		12	
A	A	hsa-let-7a-5p		hsa-let-7b-5p		hsa-let-7c		hsa-let-7d-5p		hsa-let-7e-5p		hsa-let-7f-5p		hsa-let-7g-5p		hsa-let-7i-5p		hsa-miR-1		hsa-miR-100-5p		hsa-miR-107		hsa-miR-10a-5p	
B																									
C	B	hsa-miR-10b-5p		hsa-miR-125b-5p		hsa-miR-125b-1-3p		hsa-miR-128		hsa-miR-129-5p		hsa-miR-130a-3p		hsa-miR-130b-3p		hsa-miR-132-3p		hsa-miR-140-5p		hsa-miR-141-3p		hsa-miR-145-5p		hsa-miR-148a-3p	
D																									
E	C	hsa-miR-152		hsa-miR-155-5p		hsa-miR-15a-5p		hsa-miR-15b-5p		hsa-miR-16-5p		hsa-miR-17-5p		hsa-miR-181a-5p		hsa-miR-181b-5p		hsa-miR-181c-5p		hsa-miR-181d		hsa-miR-182-5p		hsa-miR-186-5p	
F																									
G	D	hsa-miR-18a-5p		hsa-miR-193b-3p		hsa-miR-195-5p		hsa-miR-199a-3p		hsa-miR-199a-5p		hsa-miR-19a-3p		hsa-miR-19b-3p		hsa-miR-200a-3p		hsa-miR-200b-3p		hsa-miR-200c-3p		hsa-miR-202-3p		hsa-miR-203a	
H																									
I	E	hsa-miR-204-5p		hsa-miR-205-5p		hsa-miR-206		hsa-miR-20a-5p		hsa-miR-20b-5p		hsa-miR-21-5p		hsa-miR-210		hsa-miR-212-3p		hsa-miR-214-3p		hsa-miR-22-3p		hsa-miR-222-3p		hsa-miR-223-3p	
J																									
K	F	hsa-miR-25-3p		hsa-miR-26a-5p		hsa-miR-26b-5p		hsa-miR-27a-3p		hsa-miR-27b-3p		hsa-miR-29a-3p		hsa-miR-29b-3p		hsa-miR-29c-3p		hsa-miR-31-5p		hsa-miR-328		hsa-miR-340-5p		hsa-miR-424-5p	
L																									
M	G	hsa-miR-429		hsa-miR-485-5p		hsa-miR-489		hsa-miR-495-3p		hsa-miR-497-5p		hsa-miR-548c-3p		hsa-miR-607		hsa-miR-613		hsa-miR-7-5p		hsa-miR-93-5p		hsa-miR-96-5p		hsa-miR-98-5p	
N																									
O	H	cel-miR-39-3p		cel-miR-39-3p		SNORD61		SNORD68		SNORD72		SNORD95		SNORD96A		RNU6-2		miRTC		miRTC		PPC		PPC	
P																									

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
RT² 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 or can be requested from QIAGEN Technical Services or your local distributor.

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