

miScript™ miRNA PCR Array

Human Apoptosis

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-114ZA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96 well	331221 MIHS-114ZC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96 well	331221 MIHS-114ZD
E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™	384 well	331221 MIHS-114ZE
F	Roche® LightCycler® 480 (96-well block)	96 well	331221 MIHS-114ZF
G	Roche: LightCycler 480 (384-well block)	384 well	331221 MIHS-114ZG
R	Rotor-Gene® Q, Rotor-Gene 6000, other Rotor-Gene cyclers	Rotor-Disc® 100	331221 MIHS-114ZR



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 Apoptosis miScript miRNA PCR Array profiles the expression of 84 miRNAs that regulate programmed cell death by inhibiting pro-apoptotic and anti-apoptotic gene expression. This array provides researchers with a convenient way to quickly analyze the miRNAs most relevant to apoptosis. Apoptosis plays a critical role in normal biological processes requiring cell removal including differentiation, development, and homeostasis. Stress responses (such as heat shock, ischemia, unfolded proteins, and viral infection) cause badly damaged cells to undergo apoptosis. In cell culture, growth factor withdrawal and many known experimental compounds have a similar effect. An acquired defect in apoptosis activation often leads to uncontrolled cell growth, oncogenesis, and cancer. Ligand-bound tumor necrosis factor (TNF) receptors initiate apoptosis by recruiting FADD and other death domain adaptor proteins that then recruit and activate caspases. Environmental stresses trigger BCL2 protein oligomerization and insertion into the mitochondrial membrane, releasing APAF1 and other CARD family members that also oligomerize to recruit and activate caspases. Caspases promote a proteolytic cascade that degrades cellular protein targets, while the IAP protein family directly inhibits caspases. Besides these post-translational events, miRNAs provide another mechanism of regulating apoptosis by attenuating gene expression. This array represents miRNAs experimentally verified to regulate many pro- and anti-apoptotic genes and to stimulate or attenuate apoptosis upon their overexpression or inhibition. Monitoring their expression helps determine the mechanisms behind programmed cell death in any model system and the propensity of a cell type to undergo apoptosis normally. A set of controls present on each array enables data analysis using the $\Delta\Delta CT$ method of relative quantification, assessment of reverse transcription performance, and assessment of PCR performance. Using SYBR® Green real-time PCR, the expression of a focused panel of miRNAs related to apoptosis 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		13	
A	hsa-lei-7a-5p	hsa-lei-7c		hsa-lei-7e-5p		hsa-lei-7g-5p		hsa-miR-1		hsa-miR-101-3p		hsa-miR-106b-5		hsa-miR-125a-5		hsa-miR-125b-5		hsa-miR-128		hsa-miR-1285-3		p		p	
B												p		p		p									
C	hsa-miR-133a	hsa-miR-133b		hsa-miR-134		hsa-miR-141-3p		hsa-miR-143-3p		hsa-miR-144-3p		hsa-miR-145-5p		hsa-miR-146a-5		hsa-miR-149-3p		hsa-miR-150-5p		hsa-miR-150-5p		hsa-miR-150-5p		hsa-miR-150-5p	
D														p											
E	hsa-miR-16-5p	hsa-miR-17-5p		hsa-miR-181a-5		hsa-miR-181b-5		hsa-miR-181c-5		hsa-miR-181d		hsa-miR-183-5p		hsa-miR-185-5p		hsa-miR-186-3p		hsa-miR-192-5p		hsa-miR-193b-3		p		p	
F						p		p																	
G	hsa-miR-194-5p	hsa-miR-195-5p		hsa-miR-200c-3		hsa-miR-203a		hsa-miR-204-5p		hsa-miR-205-5p		hsa-miR-206		hsa-miR-20a-5p		hsa-miR-21-5p		hsa-miR-210		hsa-miR-212-3p		hsa-miR-214-3p			
H				p																					
I	hsa-miR-218-5p	hsa-miR-221-3p		hsa-miR-222-3p		hsa-miR-230a-3p		hsa-miR-24-3p		hsa-miR-25-3p		hsa-miR-26a-5p		hsa-miR-26b-5p		hsa-miR-27a-3p		hsa-miR-290a-3p		hsa-miR-290a-3p		hsa-miR-290a-3p		hsa-miR-290a-3p	
J																									
K	hsa-miR-30a-5p	hsa-miR-30b-5p		hsa-miR-30c-5p		hsa-miR-30a-5p		hsa-miR-30e-5p		hsa-miR-31-5p		hsa-miR-32-5p		hsa-miR-338-3p		hsa-miR-34a-5p		hsa-miR-34c-5p		hsa-miR-365a-3		p		p	
L																									
M	hsa-miR-409-3p	hsa-miR-449a		hsa-miR-451a		hsa-miR-491-5p		hsa-miR-497-5p		hsa-miR-512-5p		hsa-miR-542-3p		hsa-miR-708-5p		hsa-miR-9-5p		hsa-miR-92a-3p		hsa-miR-98-5p		hsa-miR-98-5p		hsa-miR-98-5p	
N																									
O	cel-miR-39-3p	cel-miR-39-3p		SNORD61		SNORD68		SNORD72		SNORD95		SNORD96A		RNU6-2		miRTC		miRTC		PPC		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
RT ² 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.

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.).

1070012 10/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

China ■ 8621-3865-3865

Denmark ■ 80-885945

Finland ■ 0800-914416

France ■ 01-60-920-930

Germany ■ 02103-29-12000

Hong Kong ■ 800 933 965

Ireland ■ 1800 555 049

Italy ■ 800-787980

Japan ■ 03-6890-7300

Korea (South) ■ 080-000-7145

Luxembourg ■ 8002 2076

Mexico ■ 01-800-7742-436

The Netherlands ■ 0800 0229592

Norway ■ 800-18859

Singapore ■ 1800-742-4368

Spain ■ 91-630-7050

Sweden ■ 020-790282

Switzerland ■ 055-254-22-11

UK ■ 01293-422-911

USA ■ 800-426-8157

Australia ■ 1-800-243-800

Austria ■ 0800/281010

Belgium ■ 0800-79612

Brazil ■ 0800-557779



Sample & Assay Technologies