

RT² Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

Rat miR-9 Targets

Cat. no. 330231 PARN-6014ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format 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
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT ² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

Description

The Rat miR-9 Targets RT² Profiler PCR Array profiles the expression of 84 rno-miR-9a-5p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by rno-miR-9a-5p. The target genes would also be predicted to be regulated by any other yet to be discovered miRNAs that would have the same seed sequence as rno-miR-9a-5p. miRNA target gene expression analysis provides further insight into the function of these specific miRNAs. A set of controls present on each array enables data analysis using the $\Delta\Delta\text{CT}$ method of relative quantification as well as assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes likely to be regulated by miR-9 with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.

Shipping and storage

RT² Profiler PCR Arrays in formats A, C, D, E, F, and G are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products. RT² Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

For long term storage, keep plates at -20°C .

Note: Ensure that you have the correct RT² Profiler PCR Array format for your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.

Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT² Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Adams3	Ankrd52	Ap1s2	Ap3b1	Ap4e1	Arid1a	Atp1b1	Bace1	Calb2	Catna1	Cc2d1b	Ccdc43
B	Cndb1	Ccng1	Cdh1	Cdx2	Cep63	Cntn3	Col15a1	Crim1	Ybx3	Cank1a1	Dnajc14	Emb
C	Ets1	Fam107b	Fbn1	Fbnp4	Foxg1	Foxo1	Foxo3	Frem2	Galnt3	Gch1	Gmeb2	Gnpnat1
D	Hes1	Hlcs	Igf2bp3	Insig1	Ipo4	Itpkc	Kcnj2	Kcnk4	Kctd2	Klhl18	Lamp1	Lepre1
E	Lnna	Mesdc1	Myo1c	Myo1d	Myocd	Nr2e1	Opn3	Pdgfr6	Pdgfr	Pmp22	Prdm1	Pxdn
F	Rab34	Rest	Onecut2	Rnf150	Shc1	Sin3a	Sirt1	Slc20a2	Snx25	Snx7	Socs5	Srgn
G	Slk3	Stmn1	Tbpl1	Tesk2	Tgfb1	Tnks	Tomm20	Tsc22d2	Ube3c	Ulk2	Vav3	Zkscan1
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.218557	NM_001107212	Adams3	ADAM metalloproteinase with thrombospondin type 1, motif 3
A02	Rn.229355	NM_001191875	Ankrd52	Ankyrin repeat domain 52
A03	Rn.17309	NM_001127531	Ap1s2	Adaptor-related protein complex 1, sigma 2 subunit
A04	Rn.11685	NM_001107646	Ap3b1	Adaptor-related protein complex 3, beta 1 subunit
A05	Rn.151891	NM_001191742	Ap4e1	Adaptor-related protein complex 4, epsilon 1 subunit
A06	Rn.61077	NM_001106635	Arid1a	AT rich interactive domain 1A (SWI-like)
A07	Rn.8925	NM_013113	Atp1b1	ATPase, Na ⁺ /K ⁺ transporting, beta 1 polypeptide
A08	Rn.207201	NM_019204	Bace1	Beta-site APP cleaving enzyme 1
A09	Rn.10321	NM_053988	Calb2	Calbindin 2
A10	Rn.103790	NM_001007145	Catna1	Catenin (cadherin associated protein), alpha 1
A11	Rn.3265	NM_001270984	Cc2d1b	Coiled-coil and C2 domain containing 1B
A12	Rn.13165	NM_001100728	Ccdc43	Coiled-coil domain containing 43
B01	Rn.162679	NM_001013204	Cndb1	Cyclin D-type binding-protein 1
B02	Rn.5834	NM_012923	Ccng1	Cyclin G1
B03	Rn.1303	NM_031334	Cdh1	Cadherin 1
B04	Rn.64495	NM_023963	Cdx2	Caudal type homeo box 2
B05	Rn.198215	NM_001037772	Cep63	Centrosomal protein 63
B06	Rn.10043	NM_019329	Cntn3	Contactin 3 (plasmacytoma associated)
B07	Rn.31832	NM_001100535	Col15a1	Collagen, type XV, alpha 1
B08	Rn.54364	NM_001169103	Crim1	Cysteine rich transmembrane BMP regulator 1 (chordin like)
B09	Rn.3306	NM_031979	Ybx3	Cold shock domain protein A
B10	Rn.23810	NM_053615	Csnk1a1	Casein kinase 1, alpha 1
B11	Rn.114340	NM_053690	Dnajc14	DnaJ (Hsp40) homolog, subfamily C, member 14
B12	Rn.16221	NM_053719	Emb	Embiggin homolog (mouse)
C01	Rn.88756	NM_012555	Ets1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
C02	Rn.105966	NM_001025034	Fam107b	Family with sequence similarity 107, member B
C03	Rn.12759	NM_031825	Fbn1	Fibrillin 1
C04	Rn.66946	NM_001013159	Fbnp4	Formin binding protein 4
C05	Rn.9864	NM_012560	Foxg1	Forkhead box G1
C06	Rn.116108	NM_001191846	Foxo1	Forkhead box O1
C07	Rn.165338	NM_001106395	Foxo3	Forkhead box O3
C08	Rn.63994	NM_001245978	Frem2	Fras1 related extracellular matrix protein 2
C09	Rn.78014	NM_001015032	Galnt3	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 3 (GalNAc-T3)
C10	Rn.28195	NM_024356	Gch1	GTP cyclohydrolase 1
C11	Rn.40949	NM_031803	Gmeb2	Glucocorticoid modulatory element binding protein 2
C12	Rn.14702	NM_001134756	Gnpnat1	Glucosamine-phosphate N-acetyltransferase 1
D01	Rn.19727	NM_024360	Hes1	Hairy and enhancer of split 1 (Drosophila)
D02	N/A	XM_221630	Hlcs	Holocarboxylase synthetase (biotin-(propionyl)-Coenzyme A-carboxylase (ATP-hydrolysing)) ligase
D03	Rn.100446	NM_001047888	Igf2bp3	Insulin-like growth factor 2 mRNA binding protein 3
D04	Rn.772	NM_022392	Insig1	Insulin induced gene 1
D05	Rn.107154	NM_001106038	Ipo4	Importin 4
D06	Rn.85907	NM_178094	Itpkc	Inositol 1,4,5-trisphosphate 3-kinase C
D07	Rn.44415	NM_017296	Kcnj2	Potassium inwardly-rectifying channel, subfamily J, member 2

Position	UniGene	GenBank	Symbol	Description
D08	Rn.46453	NM_053804	Kcnk4	Potassium channel, subfamily K, member 4
D09	N/A	XM_006221035	Kctd2	Potassium channel tetramerization domain containing 2
D10	N/A	XM_236647	Klhl18	Kelch-like 18 (Drosophila)
D11	Rn.40177	NM_012857	Lamp1	Lysosomal-associated membrane protein 1
D12	Rn.13741	NM_053667	Lepre1	Leucine proline-enriched proteoglycan (leprecan) 1
E01	Rn.44161	NM_001002016	Lmna	Lamin A
E02	Rn.162446	NM_001013149	Mesdc1	Mesoderm development candidate 1
E03	Rn.55135	NM_023092	Myo1c	Myosin IC
E04	Rn.10376	NM_012983	Myo1d	Myosin ID
E05	Rn.163103	NM_182667	Myocd	Myocardin
E06	Rn.218964	NM_001113197	Nr2e1	Nuclear receptor subfamily 2, group E, member 1
E07	Rn.204549	NM_001191933	Opn3	Opsin 3
E08	Rn.16897	NM_001013154	Pcgf6	Polycomb group ring finger 6
E09	Rn.211987	NM_031317	Pdgfc	Platelet derived growth factor C
E10	Rn.1476	NM_017037	Pmp22	Peripheral myelin protein 22
E11	Rn.8012	NM_001107639	Prdm1	PR domain containing 1, with ZNF domain
E12	Rn.40541	NM_001271261	Pxdn	Peroxidasin homolog (Drosophila)
F01	Rn.98493	NM_001012140	Rab34	RAB34, member RAS oncogene family
F02	Rn.10879	NM_031788	Rest	RE1-silencing transcription factor
F03	N/A	XM_002725360	Onecut2	Similar to transcription factor ONECUT2
F04	Rn.41013	NM_001191093	Rnf150	Ring finger protein 150
F05	Rn.138818	NM_053517	Shc1	SHC (Src homology 2 domain containing) transforming protein 1
F06	Rn.63749	NM_001108761	Sin3a	SIN3 homolog A, transcription regulator (yeast)
F07	N/A	NM_001107627	Sirt1	Sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae)
F08	Rn.217359	NM_017223	Slc20a2	Solute carrier family 20 (phosphate transporter), member 2
F09	Rn.16962	XM_224863	Snx25	Sorting nexin 25
F10	Rn.29845	NM_001012083	Snx7	Sorting nexin 7
F11	Rn.47568	NM_001109274	Socs5	Suppressor of cytokine signaling 5
F12	Rn.40122	NM_020074	Srgn	Serglycin
G01	Rn.89363	NM_031735	Stk3	Serine/threonine kinase 3 (STE20 homolog, yeast)
G02	Rn.555	NM_017166	Stmn1	Stathmin 1
G03	Rn.25148	NM_001127201	Tbpl1	TATA box binding protein-like 1
G04	Rn.144652	NM_133396	Tesk2	Testis-specific kinase 2
G05	Rn.1046	NM_053802	Tgfb1	Transforming growth factor, beta induced
G06	Rn.213840	NM_001106084	Tnks	Tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase
G07	Rn.2143	NM_152935	Tomm20	Translocase of outer mitochondrial membrane 20 homolog (yeast)
G08	Rn.167784	NM_001191960	Tsc22d2	TSC22 domain family, member 2
G09	N/A	XM_001055148	Ube3c	Ubiquitin protein ligase E3C
G10	Rn.17602	NM_001191645	Ulk2	Unc-51 like kinase 2 (C. elegans)
G11	Rn.27881	NM_001191714	Vav3	Vav 3 guanine nucleotide exchange factor
G12	Rn.113295	NM_001025760	Zkscan1	Zinc finger with KRAB and SCAN domains 1
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat Genomic DNA Contamination
H07	N/A	SA_00104	RTC	Reverse Transcription Control
H08	N/A	SA_00104	RTC	Reverse Transcription Control
H09	N/A	SA_00104	RTC	Reverse Transcription Control
H10	N/A	SA_00103	PPC	Positive PCR Control
H11	N/A	SA_00103	PPC	Positive PCR Control
H12	N/A	SA_00103	PPC	Positive PCR Control

Related products

For optimal performance, RT² Profiler PCR Arrays should be used together with the RT² First Strand Kit for cDNA synthesis and RT² SYBR[®] Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² SYBR Green qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384, DNA Engine Opticon 2; Bio-Rad/MJ Research Chromo4; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT ² SYBR Green ROX™ qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and FAST], 7700, 7900HT 96-well block [Standard and FAST] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000; Takara TP-800	330520
RT ² SYBR Green Fluor qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510

* Larger kit sizes available; please inquire.

RT² Profiler PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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