

# RT<sup>2</sup> Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

## Rat miR-21 Targets

Cat. no. 330231 PARN-6001ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> Profiler PCR Array, Format A	Applied Biosystems <sup>®</sup> models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad <sup>®</sup> models iCycler <sup>®</sup> , iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf <sup>®</sup> Mastercycler <sup>®</sup> ep realplex models 2, 2s, 4, 4s; Stratagene <sup>®</sup> models Mx3005P <sup>®</sup> , Mx3000P <sup>®</sup> ; Takara TP-800
RT <sup>2</sup> Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT <sup>2</sup> Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon <sup>®</sup> , DNA Engine Opticon 2; Stratagene Mx4000 <sup>®</sup>
RT <sup>2</sup> Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT <sup>2</sup> Profiler PCR Array, Format F	Roche <sup>®</sup> LightCycler <sup>®</sup> 480 (96-well block)
RT <sup>2</sup> Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT <sup>2</sup> Profiler PCR Array, Format H	Fluidigm <sup>®</sup> BioMark™



Sample & Assay Technologies

## Description

The Rat miR-21 Targets RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 rno-miR-21-5p target genes. This panel of 84 genes includes experimentally verified plus bioinformatically predicted target genes regulated by rno-miR-21-5p. miRNA target gene expression analysis provides further insight into the function of these specific miRNAs. 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-21 with this array.

For further details, consult the *RT<sup>2</sup> Profiler PCR Array Handbook*.

## Shipping and storage

RT<sup>2</sup> 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. RT<sup>2</sup> Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

For long term storage, keep plates at  $-20^{\circ}\text{C}$ .

**Note:** Ensure that you have the correct RT<sup>2</sup> Profiler PCR Array format for your real-time cycler (see table above).

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

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## Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT<sup>2</sup> Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Acat1	Acvr2a	Adnp	Ankrd46	Apaf1	Arhgap24	Armcx1	Asf1a	Basp1	Bcl11b	Bcl2	Bmpr2
<b>B</b>	Blg2	Cdc25a	Cdk2ap1	Cep68	Crebl2	Dag1	Daxx	Der1	E2f1	Egr3	Eif2s1	Eif4a2
<b>C</b>	Elf2	Faslg	Fbxo11	Hnmpk	Icam1	Il1b	Jag1	Klf5	Klhdc5	Krit1	Lancl1	Lrrfp1
<b>D</b>	Mapk10	Marcks	Mef2c	Msh2	Mtap	Myc	Ncapp	Ncoa3	Nfib	Nf3	Pcbp1	Pcd4
<b>E</b>	Pdha2	Peli1	Pix2	Plat	Plod3	Ppif	Ppp1r3a	Ppp1r3b	Plen	Rasa1	Rasgrp1	Reck
<b>F</b>	Rhob	Rtn4	Serpib5	Sox5	Spats2l	Spry1	Spry2	Tgfb1	Tgfb2	Tgfb3	Tiam1	Timp3
<b>G</b>	Tm9sf3	Tnfrsf11b	Tnks	Tnrc6b	Topors	Tp53bp2	Tp63	Tpm1	Ube2d3	Wfs1	Wibg	Wwp1
<b>H</b>	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

## Gene table: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.4054	NM_017075	Acat1	Acetyl-coenzyme A acetyltransferase 1
A02	Rn.161783	NM_031571	Acvr2a	Activin A receptor, type IIA
A03	Rn.48777	NM_022681	Adnp	Activity-dependent neuroprotector homeobox
A04	Rn.11978	NM_001013948	Ankrd46	Ankyrin repeat domain 46
A05	Rn.64522	NM_023979	Apaf1	Apoptotic peptidase activating factor 1
A06	Rn.24657	NM_001012032	Arhgap24	Rho GTPase activating protein 24
A07	Rn.140506	NM_001024367	Armcx1	Armadillo repeat containing, X-linked 1
A08	Rn.163427	NM_001106389	Asf1a	ASF1 anti-silencing function 1 homolog A (S. cerevisiae)
A09	Rn.37779	NM_022300	Basp1	Brain abundant, membrane attached signal protein 1
A10	Rn.162897	NM_001108057	Bcl11b	B-cell CLL/lymphoma 11B (zinc finger protein)
A11	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A12	Rn.59276	NM_080407	Bmpr2	Bone morphogenetic protein receptor, type II (serine/threonine kinase)
B01	Rn.27923	NM_017259	Big2	BTG family, member 2
B02	Rn.11390	NM_133571	Cdc25a	Cell division cycle 25 homolog A (S. pombe)
B03	Rn.40447	NM_001113751	Cdk2ap1	CDK2-associated protein 1
B04	Rn.105766	XM_214106	Cep68	Centrosomal protein 68
B05	Rn.107553	NM_001015027	Crebl2	CAMP responsive element binding protein-like 2
B06	Rn.36260	XM_343483	Dag1	Dystroglycan 1 (dystrophin-associated glycoprotein 1)
B07	Rn.870	NM_080891	Daxx	Death-domain associated protein
B08	Rn.110990	NM_001014202	Der1	Der1-like domain family, member 1
B09	Rn.72471	NM_001100778	E2f1	E2F transcription factor 1
B10	Rn.44371	NM_017086	Egr3	Early growth response 3
B11	Rn.1488	NM_019356	Eif2s1	Eukaryotic translation initiation factor 2, subunit 1 alpha
B12	Rn.143972	NM_001008335	Eif4a2	Eukaryotic translation initiation factor 4A, isoform 2
C01	Rn.107459	NM_001012181	Elf2	E74-like factor 2
C02	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
C03	Rn.36585	NM_181631	Fbxo11	F-box protein 11
C04	Rn.11854	NM_057141	Hnmpk	Heterogeneous nuclear ribonucleoprotein K
C05	Rn.12	NM_012967	Icam1	Intercellular adhesion molecule 1
C06	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
C07	Rn.88804	NM_019147	Jag1	Jagged 1
C08	Rn.8954	NM_053394	Klf5	Kruppel-like factor 5
C09	Rn.203842	XM_001074361	Klhdc5	Kelch domain containing 5
C10	Rn.162726	NM_001108618	Krit1	KRIT1, ankyrin repeat containing
C11	Rn.38972	NM_053723	Lancl1	LanC lantibiotic synthetase component C-like 1 (bacterial)
C12	Rn.153995	NM_001014269	Lrrfp1	Leucine rich repeat (in FHL) interacting protein 1
D01	Rn.9911	NM_012806	Mapk10	Mitogen activated protein kinase 10
D02	Rn.9560	XM_002728965	Marcks	Myristoylated alanine rich protein kinase C substrate
D03	Rn.2477	XM_574821	Mef2c	Myocyte enhancer factor 2C
D04	Rn.3174	NM_031058	Msh2	MutS homolog 2 (E. coli)
D05	Rn.202751	NM_001047867	Mtap	Methylthioadenosine phosphorylase
D06	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
D07	Rn.162278	XM_001058724	Ncapp	Non-SMC condensin I complex, subunit G
D08	Rn.20691	XM_215947	Ncoa3	Nuclear receptor coactivator 3
D09	Rn.40435	NM_031566	Nfib	Nuclear factor I/B

Position	UniGene	GenBank	Symbol	Description
D10	Rn.9715	NM_031073	Nf3	Neurotrophin 3
D11	Rn.1267	XM_575592	Pcbp1	Poly(rC) binding protein 1
D12	Rn.206228	NM_022265	Pdcd4	Programmed cell death 4
E01	Rn.11126	NM_053994	Pdha2	Pyruvate dehydrogenase (lipoamide) alpha 2
E02	Rn.22814	NM_001100565	Peli1	Pellino 1
E03	Rn.17591	NM_019334	Pitx2	Paired-like homeodomain 2
E04	Rn.107102	NM_013151	Plat	Plasminogen activator, tissue
E05	Rn.90152	NM_178101	Plod3	Procollagen-lysine, 2-oxoglutarate 5-dioxygenase 3
E06	Rn.2923	NM_172243	Ppif	Peptidylprolyl isomerase F
E07	Rn.29809	XM_001057957	Ppp1r3a	Protein phosphatase 1, regulatory (inhibitor) subunit 3A
E08	Rn.30046	NM_138912	Ppp1r3b	Protein phosphatase 1, regulatory (inhibitor) subunit 3B
E09	Rn.22158	NM_031606	Pten	Phosphatase and tensin homolog
E10	Rn.12223	NM_013135	Rasa1	RAS p21 protein activator (GTPase activating protein) 1
E11	Rn.162685	NM_019211	Rasgrp1	RAS guanyl releasing protein 1 (calcium and DAG-regulated)
E12	Rn.7365	NM_001107954	Reck	Reversion-inducing-cysteine-rich protein with kazal motifs
F01	Rn.2042	NM_022542	Rhob	Ras homolog gene family, member B
F02	Rn.1348	NM_031831	Rtn4	Reticulon 4
F03	Rn.25752	NM_057108	Serpib5	Serpin peptidase inhibitor, clade B (ovalbumin), member 5
F04	Rn.213690	XM_342784	Sox5	SRY-box containing gene 5
F05	Rn.14294	NM_001014102	Spats2l	Spermatogenesis associated, serine-rich 2-like
F06	Rn.221903	NM_001106427	Spry1	Sprouty homolog 1, antagonist of FGF signaling (Drosophila)
F07	Rn.103294	NM_001012046	Spry2	Sprouty homolog 2 (Drosophila)
F08	Rn.1046	NM_053802	Tgfb	Transforming growth factor, beta induced
F09	Rn.9954	NM_031132	Tgfb2	Transforming growth factor, beta receptor II
F10	Rn.9953	NM_017256	Tgfb3	Transforming growth factor, beta receptor III
F11	Rn.204561	NM_001100558	Tiam1	T-cell lymphoma invasion and metastasis 1
F12	Rn.119634	NM_012886	Timp3	TIMP metalloproteinase inhibitor 3
G01	Rn.17150	XM_220013	Tm9sf3	Transmembrane 9 superfamily member 3
G02	Rn.202973	NM_012870	Tnfrsf11b	Tumor necrosis factor receptor superfamily, member 11b
G03	Rn.213840	NM_001106084	Tnks	Tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase
G04	Rn.17120	NM_138845	Tnrc6b	Trinucleotide repeat containing 6B
G05	Rn.55605	NM_001108658	Topors	Topoisomerase I binding, arginine/serine-rich
G06	Rn.50333	XM_223012	Tp53bp2	Tumor protein p53 binding protein, 2
G07	Rn.42907	NM_019221	Tp63	Tumor protein p63
G08	Rn.87540	NM_019131	Tpm1	Tropomyosin 1, alpha
G09	Rn.2778	NM_031237	Ube2d3	Ubiquitin-conjugating enzyme E2D 3 (UBC4/5 homolog, yeast)
G10	Rn.16015	NM_031823	Wfs1	Wolfram syndrome 1 homolog (human)
G11	Rn.218509	NM_001108986	Wibg	Within bgcn homolog (Drosophila)
G12	Rn.144867	NM_001024757	Wwp1	WW domain containing E3 ubiquitin protein ligase 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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> 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 <sup>2</sup> 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 <sup>2</sup> 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.

RT<sup>2</sup> 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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