

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

## Rat miR-153 Targets

Cat. no. 330231 PARN-6013ZA

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-153 Targets RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 rno-miR-153-3p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by rno-miR-153-3p. 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-153-3p. 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-153 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
A	Actn4	Aplp2	Arf1	Arl4a	Arpp19	Auts2	Bcl2	Cbfb	Cdc215	Cited2	Cnn3	Crebbp
B	Cugbp2	Cux1	Dmd	Ext1	Fam168b	Fam171a1	Gcap14	Glcc1	Hey2	Ipo5	Itn2	Jag1
C	Kdsr	Klf13	Klf5	Lamp1	Lats1	100910655,	LOC304558	LOC313936	LOC499331	LOC689145	Map4k5	Mcl1
D	Mdn1	Me1	Morc3	Mov10	Mpped2	Mf2	Nav2	Nek9	Nfe2f2	Nova1	Nptn	Nudf4
E	Oprk1	Paip1	Pax2	Pcdhga12	Pcdhga2	Pols	Ppm1d	Ppm1h	Ppde1	Prdm2	Ptpn3	Rasa1
F	RGD1310552	Robo2	Rock1	Rtn	Ryr3	Sertad2	Sgl3	Sigmar1	Slc3a2	Slc4a4	Smarca5	Snca
G	Tbc1d19	Tceb1	Tcerg11	Tesk2	Tjp1	Tmsb4x	Ube2w	Unc84a	Unc84b	Ybx1	Yipf2	Zcchc2
H	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.15777	NM_031675	Actn4	Actinin alpha 4
A02	Rn.1423	XM_343513	Aplp2	Amyloid beta (A4) precursor-like protein 2
A03	Rn.93735	NM_022518	Arf1	ADP-ribosylation factor 1
A04	Rn.9258	NM_019186	Arl4a	ADP-ribosylation factor-like 4A
A05	Rn.112577	NM_031660	Arpp19	CAMP-regulated phosphoprotein 19
A06	Rn.218575	XM_573389	Auts2	Autism susceptibility candidate 2
A07	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A08	Rn.7308	NM_001013191	Cbfb	Core-binding factor, beta subunit
A09	Rn.23420	XM_225404	Cdc215	Cell division cycle 2-like 5 (cholinesterase-related cell division controller)
A10	Rn.31765	NM_053698	Cited2	Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2
A11	Rn.57635	NM_019359	Cnn3	Calponin 3, acidic
A12	Rn.108128	NM_133381	Crebbp	CREB binding protein
B01	Rn.162247	NM_017197	Cugbp2	CUG triplet repeat, RNA binding protein 2
B02	Rn.10455	XM_347163	Cux1	Cut-like homeobox 1
B03	Rn.10307	NM_012698	Dmd	Dystrophin
B04	Rn.106323	XM_216920	Ext1	Exostosin (multiple) 1
B05	Rn.9501	XM_001055714	Fam168b	Family with sequence similarity 168, member B
B06	Rn.155456	XM_001056358	Fam171a1	Family with sequence similarity 171, member A1
B07	Rn.96252	XM_224672	Gcap14	Granule cell antiserum positive 14
B08	Rn.204577	XM_001055704	Glcc1	Glucocorticoid induced transcript 1
B09	Rn.58672	NM_130417	Hey2	Hairy/enhancer-of-split related with YRPW motif 2
B10	Rn.79893	XM_224534	Ipo5	Importin 5
B11	Rn.37673	XM_233945	Itn2	Intersectin 2
B12	Rn.88804	NM_019147	Jag1	Jagged 1
C01	Rn.22924	NM_001108342	Kdsr	3-ketodihydrospingosine reductase
C02	Rn.22229	NM_001109147	Klf13	Kruppel-like factor 13
C03	Rn.8954	NM_053394	Klf5	Kruppel-like factor 5
C04	Rn.40177	NM_012857	Lamp1	Lysosomal-associated membrane protein 1
C05	Rn.213335	NM_001134543	Lats1	LATS, large tumor suppressor, homolog 1 (Drosophila)
C06	N/A	XM_003749946	100910655,	Paralemmin-2-like
C07	Rn.137233	XM_222260	LOC304558	Similar to TPR repeat-containing protein KIAA1043
C08	Rn.140455	NM_001014074	LOC313936	Hypothetical LOC313936
C09	Rn.145556	NM_001024293	LOC499331	Similar to hypothetical protein D030056L22
C10	Rn.201352	XM_001069727	LOC689145	Hypothetical protein LOC689145
C11	Rn.212028	XM_001076790	Map4k5	Mitogen-activated protein kinase kinase kinase kinase 5
C12	Rn.129914	NM_021846	Mcl1	Myeloid cell leukemia sequence 1
D01	Rn.9052	XM_002726504	Mdn1	Midasin homolog (yeast)
D02	Rn.219137	NM_012600	Me1	Malic enzyme 1, NADP(+)-dependent, cytosolic
D03	Rn.17121	NM_001107109	Morc3	MORC family CW-type zinc finger 3
D04	Rn.3508	NM_001107711	Mov10	Moloney leukemia virus 10
D05	Rn.206970	NM_198778	Mpped2	Metallophosphoesterase domain containing 2
D06	Rn.20300	NM_001100898	Mf2	Metal response element binding transcription factor 2
D07	Rn.203786	NM_138529	Nav2	Neuron navigator 2
D08	Rn.102369	NM_001106747	Nek9	NIMA (never in mitosis gene a)- related kinase 9

Position	UniGene	GenBank	Symbol	Description
D09	Rn.10867	NM_031789	Nfe2l2	Nuclear factor, erythroid derived 2, like 2
D10	Rn.206187	XM_234098	Nova1	Neuro-oncological ventral antigen 1
D11	Rn.37476	NM_019380	Nptn	Neuroplastin
D12	Rn.8426	NM_053598	Nudt4	Nudix (nucleoside diphosphate linked moiety X)-type motif 4
E01	Rn.89571	NM_017167	Oprk1	Opioid receptor, kappa 1
E02	Rn.9450	NM_001108937	Paip1	Poly(A) binding protein interacting protein 1
E03	Rn.137112	NM_001106361	Pax2	Paired box 2
E04	Rn.8628	NM_001037337	Pcdhga12	Protocadherin gamma subfamily A, 12
E05	Rn.8628	NM_001037139	Pcdhga2	Protocadherin gamma subfamily A, 2
E06	Rn.22554	NM_001107333	Pols	Polymerase (DNA directed) sigma
E07	Rn.15540	NM_001105825	Ppm1d	Protein phosphatase 1D magnesium-dependent, delta isoform
E08	Rn.198204	XM_002726914	Ppm1h	Protein phosphatase 1H (PP2C domain containing)
E09	Rn.9401	NM_001013873	Pppde1	PPPDE peptidase domain containing 1
E10	Rn.202632	NM_001077648	Prdm2	PR domain containing 2, with ZNF domain
E11	Rn.22271	XM_001055793	Ptfn3	Protein tyrosine phosphatase, non-receptor type 3
E12	Rn.12223	NM_013135	Rasa1	RAS p21 protein activator (GTPase activating protein) 1
F01	Rn.23973	NM_001106838	RGD131055 2	Similar to hypothetical protein MGC38960
F02	Rn.24350	NM_032106	Robo2	Roundabout homolog 2 (Drosophila)
F03	Rn.89756	NM_031098	Rock1	Rho-associated coiled-coil containing protein kinase 1
F04	Rn.139347	NM_001170436	Rtn	Rotatin
F05	Rn.20282	XM_342491	Ryr3	Ryanodine receptor 3
F06	Rn.160886	NM_001024903	Sertad2	SERTA domain containing 2
F07	Rn.195351	XM_001060531	Sgk3	Serum/glucocorticoid regulated kinase 3
F08	Rn.1129	NM_030996	Sigmar1	Sigma non-opioid intracellular receptor 1
F09	Rn.145405	NM_139339	Slc36a2	Solute carrier family 36 (proton/amino acid symporter), member 2
F10	Rn.11114	NM_053424	Slc4a4	Solute carrier family 4, sodium bicarbonate cotransporter, member 4
F11	Rn.221918	NM_001107419	Smarca5	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 5
F12	Rn.1827	NM_019169	Snca	Synuclein, alpha (non A4 component of amyloid precursor)
G01	Rn.46324	NM_001106008	Tbc1d19	TBC1 domain family, member 19
G02	Rn.5996	NM_022593	Tceb1	Transcription elongation factor B (SIII), polypeptide 1
G03	Rn.45649	NM_001130077	Tcerg1l	Transcription elongation regulator 1-like
G04	Rn.144652	NM_133396	Tesk2	Testis-specific kinase 2
G05	Rn.101871	NM_001106266	Tjp1	Tight junction protein 1
G06	Rn.212208	NM_031136	Tmsb4x	Thymosin beta 4, X-linked
G07	N/A	XM_003749911	Ube2w	Ubiquitin-conjugating enzyme E2W
G08	Rn.100642	NM_001007147	Unc84a	Unc-84 homolog A (C. elegans)
G09	Rn.2240	XM_235483	Unc84b	Unc-84 homolog B (C. elegans)
G10	Rn.110976	NM_031563	Ybx1	Y box binding protein 1
G11	Rn.94869	NM_001014208	Yipf2	Yip1 domain family, member 2
G12	Rn.225097	NM_001122677	Zcchc2	Zinc finger, CCHC domain containing 2
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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