

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

Rat let-7a Targets PCR Array

Cat. no. 330231 PARN-6008YA

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 let-7a Targets RT² Profiler PCR Array profiles the expression of 84 hsa-let-7a-5p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by hsa-let-7a-5p. This array also includes target genes regulated by other miRNAs that have the same seed sequence as hsa-let-7a-5p, including 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-98-5p, hsa-miR-4458, and hsa-miR-4500. 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 let-7a 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	Adams8	Atp2a2	Bcl2l1	Bsg	Bzw1	Casp3	Ccna2	Ccnd1	Ccnd2	Cdc25a	Cdc34	Cdk6
B	Cntrl	Cep135	Chd4	Clock	Col1a2	Col3a1	Ddx19b	Dicer1	Dusp1	E2f1	Ago4	Fgd6
C	Frmd4b	Gatm	Gdf6	Gnptab	Hif1an	Hip1	Hoxa9	Ifnb1	Igf2bp1	Igf2bp3	Ikbkap	Il13
D	Il6	Iqcb1	Itgb3	Klk10	Klk6	Kras	Lin28a	Lrig2	Lrig3	Map4k3	Mapk14	Mapk6
E	Mapk8	Mtpn	Myc	Mycn	Ncoa3	Nf2	Nkiras2	Nphp3	Nr2e1	Nras	Parm1	Pbx3
F	Pdpr	Pla2g3	Plxnc1	Ppp2r2a	Prdm1	Ranbp2	Rasgrf2	Raver2	Rcn1	Slc11a2	Slc25a27	Smc1a
G	Socs4	Tgfb1	Tlr4	Trim71	Tusc2	Uhrf2	Usp32	Wdr37	Wnt1	Xpot	Zbtb5	Zfyve26
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	N/A	NM_001106811	Adams8	ADAM metallopeptidase with thrombospondin type 1 motif, 8
A02	Rn.2305	NM_001110139	Atp2a2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2
A03	Rn.10323	NM_031535	Bcl2l1	Bcl2-like 1
A04	Rn.2269	NM_012783	Bsg	Basigin
A05	Rn.234367	NM_198789	Bzw1	Basic leucine zipper and W2 domains 1
A06	Rn.10562	NM_012922	Casp3	Caspase 3
A07	Rn.13094	NM_053702	Ccna2	Cyclin A2
A08	Rn.22279	NM_171992	Ccnd1	Cyclin D1
A09	Rn.96083	NM_022267	Ccnd2	Cyclin D2
A10	Rn.11390	NM_133571	Cdc25a	Cell division cycle 25 homolog A (S. pombe)
A11	Rn.2427	NM_001013103	Cdc34	Cell division cycle 34 homolog (S. cerevisiae)
A12	Rn.162731	NM_001191861	Cdk6	Cyclin-dependent kinase 6
B01	N/A	NM_001107836	Cntrl	Centrosomal protein 110
B02	N/A	XM_223341	Cep135	Centrosomal protein 135
B03	Rn.63247	XM_232354	Chd4	Chromodomain helicase DNA binding protein 4
B04	Rn.205839	NM_021856	Clock	Clock homolog (mouse)
B05	Rn.107239	NM_053356	Col1a2	Collagen, type I, alpha 2
B06	Rn.3247	NM_032085	Col3a1	Collagen, type III, alpha 1
B07	Rn.228949	NM_001005895	Ddx19b	DEAD (Asp-Glu-Ala-As) box polypeptide 19B
B08	Rn.205881	XM_006225866	Dicer1	Dicer 1, ribonuclease type III
B09	Rn.98260	NM_053769	Dusp1	Dual specificity phosphatase 1
B10	Rn.72471	NM_001100778	E2f1	E2F transcription factor 1
B11	Rn.134659	NM_001106686	Ago4	Eukaryotic translation initiation factor 2C, 4
B12	Rn.162933	NM_001137645	Fgd6	FYVE, RhoGEF and PH domain containing 6
C01	Rn.223271	XM_232212	Frmd4b	FERM domain containing 4B
C02	Rn.17661	NM_031031	Gatm	Glycine amidinotransferase (L-arginine:glycine amidinotransferase)
C03	Rn.49815	NM_001013038	Gdf6	Growth differentiation factor 6
C04	N/A	XM_343194	Gnptab	N-acetylglucosamine-1-phosphate transferase, alpha and beta subunits
C05	Rn.83240	NM_001113749	Hif1an	Hypoxia-inducible factor 1, alpha subunit inhibitor
C06	Rn.836	NM_001100475	Hip1	Huntingtin interacting protein 1
C07	Rn.203714	NM_001109233	Hoxa9	Homeobox A9
C08	Rn.138105	NM_019127	Ifnb1	Interferon beta 1, fibroblast
C09	Rn.77572	NM_175594	Igf2bp1	Insulin-like growth factor 2 mRNA binding protein 1
C10	Rn.100446	NM_001047888	Igf2bp3	Insulin-like growth factor 2 mRNA binding protein 3
C11	Rn.162816	NM_080899	Ikbkap	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein
C12	Rn.9921	NM_053828	Il13	Interleukin 13
D01	Rn.9873	NM_012589	Il6	Interleukin 6
D02	Rn.107714	NM_001107092	Iqcb1	IQ motif containing B1
D03	Rn.229225	NM_153720	Itgb3	Integrin, beta 3
D04	Rn.230292	NM_001004100	Klk10	Kallikrein related-peptidase 10
D05	Rn.10732	NM_019175	Klk6	Kallikrein related-peptidase 6
D06	Rn.24554	NM_031515	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D07	Rn.147538	NM_001109269	Lin28a	Lin-28 homolog (C. elegans)
D08	Rn.162624	NM_001107710	Lrig2	Leucine-rich repeats and immunoglobulin-like domains 2

Position	UniGene	GenBank	Symbol	Description
D09	Rn.234016	XM_216905	Lrig3	Leucine-rich repeats and immunoglobulin-like domains 3
D10	Rn.93345	NM_133407	Map4k3	Mitogen-activated protein kinase kinase kinase 3
D11	Rn.88085	NM_031020	Mapk14	Mitogen activated protein kinase 14
D12	Rn.88457	NM_031622	Mapk6	Mitogen-activated protein kinase 6
E01	Rn.4090	NM_053829	Mapk8	Mitogen-activated protein kinase 8
E02	Rn.3239	NM_024374	Mtpn	Myotrophin
E03	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
E04	Rn.81116	NM_001013096	Mycn	V-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)
E05	Rn.20691	XM_006224744	Ncoa3	Nuclear receptor coactivator 3
E06	Rn.46695	NM_013193	Nf2	Neurofibromin 2 (merlin)
E07	Rn.90866	NM_001105839	Nkiras2	NFkB inhibitor interacting Ras-like 2
E08	Rn.104126	NM_001191882	Nphp3	Nephronophthisis 3 (adolescent)
E09	Rn.218964	NM_001113197	Nr2e1	Nuclear receptor subfamily 2, group E, member 1
E10	Rn.217722	NM_080766	Nras	Neuroblastoma ras oncogene
E11	Rn.127830	NM_173114	Parm1	Prostate androgen-regulated mucin-like protein 1
E12	Rn.162662	NM_001107834	Pbx3	Pre-B-cell leukemia homeobox 3
F01	Rn.21088	NM_001107430	Pdpr	Pyruvate dehydrogenase phosphatase regulatory subunit
F02	Rn.148320	NM_001106015	Pla2g3	Phospholipase A2, group III
F03	N/A	NM_001108744	Plxnc1	Plexin C1
F04	Rn.81155	NM_053999	Ppp2r2a	Protein phosphatase 2 (formerly 2A), regulatory subunit B, alpha isoform
F05	Rn.8012	NM_001107639	Prdm1	PR domain containing 1, with ZNF domain
F06	Rn.101115	NM_001191604	Ranbp2	RAN binding protein 2
F07	Rn.210995	NM_053721	Rasgrf2	RAS protein-specific guanine nucleotide-releasing factor 2
F08	Rn.98798	NM_001191867	Raver2	Ribonucleoprotein, PTB-binding 2
F09	Rn.103345	NM_001108586	Rcn1	Reticulocalbin 1, EF-hand calcium binding domain
F10	Rn.11418	NM_013173	Slc11a2	Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 2
F11	Rn.163043	NM_053500	Slc25a27	Solute carrier family 25, member 27
F12	Rn.11763	NM_031683	Smc1a	Structural maintenance of chromosomes 1A
G01	Rn.62929	NM_001107256	Socs4	Suppressor of cytokine signaling 4
G02	Rn.44402	NM_012775	Tgfb1	Transforming growth factor, beta receptor 1
G03	Rn.14534	NM_019178	Tlr4	Toll-like receptor 4
G04	Rn.225076	NM_001191801	Trim71	Tripartite motif-containing 71
G05	Rn.120731	NM_001109297	Tusc2	Tumor suppressor candidate 2
G06	Rn.2173	NM_001107585	Uhrf2	Ubiquitin-like with PHD and ring finger domains 2
G07	Rn.16359	NM_001107032	Usp32	Ubiquitin specific peptidase 32
G08	Rn.163358	NM_001107362	Wdr37	WD repeat domain 37
G09	Rn.138108	NM_001105714	Wnt1	Wingless-type MMTV integration site family, member 1
G10	Rn.219771	NM_001108102	Xpot	Exportin, tRNA (nuclear export receptor for tRNAs)
G11	Rn.23809	NM_001106657	Zbtb5	Zinc finger and BTB domain containing 5
G12	Rn.16048	NM_001108038	Zfyve26	Zinc finger, FYVE domain containing 26
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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