

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

Human let-7a Targets PCR Array

Cat. no. 330231 PAHS-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 Human 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	ACVR1B	ADAMTS8	BCL2L1	BSG	BZW1	CASP3	CCNA2	CCND1	CCND2	CCP110	CDC25A	CDC34
B	CDK6	CEP135	CHD4	CLOCK	COL1A2	COL3A1	COL5A2	DDX19B	DICER1	DUSP1	E2F1	E2F2
C	AGO4	FRMD4B	GATM	GDF6	GNPTAB	HIF1AN	HIP1	HOXA9	IFNB1	IGF2BP1	IGF2BP3	IKBKAP
D	IL13	IL6	IQCB1	ITGB3	KLK10	KLK6	KRAS	LIN28A	LRIG2	LRIG3	MAP4K3	MAPK14
E	MAPK6	MAPK8	MYC	MYCN	NCOA3	NF2	NKIRAS2	NPHP3	NR2E1	NRAS	PARM1	PBX3
F	PDRR	PLA2G3	PLXNC1	PPP2R2A	PRDM1	RANBP2	RASGRF2	RAVER2	RCN1	SALL4	SLC11A2	SMC1A
G	SOCS4	TGFBRI	TLR4	TRIM71	TUSC2	UHRF2	USP12	USP32	WDR37	WNT1	ZBTB5	ZFYVE26
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.438918	NM_004302	ACVR1B	Activin A receptor, type IB
A02	Hs.271605	NM_007037	ADAMTS8	ADAM metalloproteinase with thrombospondin type 1 motif, 8
A03	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
A04	Hs.501293	NM_001728	BSG	Basigin (OK blood group)
A05	Hs.736074	NM_014670	BZW1	Basic leucine zipper and W2 domains 1
A06	Hs.141125	NM_004346	CASP3	Caspase 3, apoptosis-related cysteine peptidase
A07	Hs.58974	NM_001237	CCNA2	Cyclin A2
A08	Hs.523852	NM_053056	CCND1	Cyclin D1
A09	Hs.376071	NM_001759	CCND2	Cyclin D2
A10	Hs.279912	NM_014711	CCP110	Centriolar coiled coil protein 110kDa
A11	Hs.437705	NM_001789	CDC25A	Cell division cycle 25 homolog A (S. pombe)
A12	Hs.514997	NM_004359	CDC34	Cell division cycle 34 homolog (S. cerevisiae)
B01	Hs.119882	NM_001259	CDK6	Cyclin-dependent kinase 6
B02	Hs.518767	NM_025009	CEP135	Centrosomal protein 135kDa
B03	Hs.162233	NM_001273	CHD4	Chromodomain helicase DNA binding protein 4
B04	Hs.689578	NM_004898	CLOCK	Clock homolog (mouse)
B05	Hs.489142	NM_000089	COL1A2	Collagen, type I, alpha 2
B06	Hs.443625	NM_000090	COL3A1	Collagen, type III, alpha 1
B07	Hs.445827	NM_000393	COL5A2	Collagen, type V, alpha 2
B08	Hs.221761	NM_007242	DDX19B	DEAD (Asp-Glu-Ala-As) box polypeptide 19B
B09	Hs.87889	NM_177438	DICER1	Dicer 1, ribonuclease type III
B10	Hs.171695	NM_004417	DUSP1	Dual specificity phosphatase 1
B11	Hs.654393	NM_005225	E2F1	E2F transcription factor 1
B12	Hs.194333	NM_004091	E2F2	E2F transcription factor 2
C01	Hs.744858	NM_017629	AGO4	Eukaryotic translation initiation factor 2C, 4
C02	Hs.709671	NM_015123	FRMD4B	FERM domain containing 4B
C03	Hs.75335	NM_001482	GATM	Glycine amidinotransferase (L-arginine:glycine amidinotransferase)
C04	Hs.492277	NM_001001557	GDF6	Growth differentiation factor 6
C05	Hs.46850	NM_024312	GNPTAB	N-acetylglucosamine-1-phosphate transferase, alpha and beta subunits
C06	Hs.500788	NM_017902	HIF1AN	Hypoxia inducible factor 1, alpha subunit inhibitor
C07	Hs.619089	NM_005338	HIP1	Huntingtin interacting protein 1
C08	Hs.659350	NM_152739	HOXA9	Homeobox A9
C09	Hs.93177	NM_002176	IFNB1	Interferon, beta 1, fibroblast
C10	Hs.144936	NM_006546	IGF2BP1	Insulin-like growth factor 2 mRNA binding protein 1
C11	Hs.700696	NM_006547	IGF2BP3	Insulin-like growth factor 2 mRNA binding protein 3
C12	Hs.494738	NM_003640	IKBKAP	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein
D01	Hs.845	NM_002188	IL13	Interleukin 13
D02	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
D03	Hs.604110	NM_001023570	IQCB1	IQ motif containing B1
D04	Hs.218040	NM_000212	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
D05	Hs.275464	NM_002776	KLK10	Kallikrein-related peptidase 10
D06	Hs.79361	NM_002774	KLK6	Kallikrein-related peptidase 6
D07	Hs.505033	NM_004985	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Hs.86154	NM_024674	LIN28A	Lin-28 homolog A (C. elegans)

Position	UniGene	GenBank	Symbol	Description
D09	Hs.448972	NM_014813	LRIG2	Leucine-rich repeats and immunoglobulin-like domains 2
D10	Hs.253736	NM_153377	LRIG3	Leucine-rich repeats and immunoglobulin-like domains 3
D11	Hs.655750	NM_003618	MAP4K3	Mitogen-activated protein kinase kinase kinase 3
D12	Hs.485233	NM_001315	MAPK14	Mitogen-activated protein kinase 14
E01	Hs.411847	NM_002748	MAPK6	Mitogen-activated protein kinase 6
E02	Hs.522924	NM_002750	MAPK8	Mitogen-activated protein kinase 8
E03	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
E04	Hs.25960	NM_005378	MYCN	V-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)
E05	Hs.592142	NM_181659	NCOA3	Nuclear receptor coactivator 3
E06	Hs.187898	NM_000268	NF2	Neurofibromin 2 (merlin)
E07	Hs.632252	NM_017595	NKIRAS2	NFkB inhibitor interacting Ras-like 2
E08	Hs.511991	NM_153240	NPHP3	Nephronophthisis 3 (adolescent)
E09	Hs.157688	NM_003269	NR2E1	Nuclear receptor subfamily 2, group E, member 1
E10	Hs.486502	NM_002524	NRAS	Neuroblastoma RAS viral (v-ras) oncogene homolog
E11	Hs.623905	NM_015393	PARM1	Prostate androgen-regulated mucin-like protein 1
E12	Hs.428027	NM_006195	PBX3	Pre-B-cell leukemia homeobox 3
F01	Hs.744043	NM_017990	PDP1	Pyruvate dehydrogenase phosphatase regulatory subunit
F02	Hs.149623	NM_015715	PLA2G3	Phospholipase A2, group III
F03	Hs.584845	NM_005761	PLXNC1	Plexin C1
F04	Hs.146339	NM_002717	PPP2R2A	Protein phosphatase 2, regulatory subunit B, alpha
F05	Hs.436023	NM_182907	PRDM1	PR domain containing 1, with ZNF domain
F06	Hs.715056	NM_006267	RANBP2	RAN binding protein 2
F07	Hs.162129	NM_006909	RASGRF2	Ras protein-specific guanine nucleotide-releasing factor 2
F08	Hs.591443	NM_018211	RAVER2	Ribonucleoprotein, PTB-binding 2
F09	Hs.97887	NM_002901	RCN1	Reticulocalbin 1, EF-hand calcium binding domain
F10	Hs.517113	NM_020436	SALL4	Sal-like 4 (Drosophila)
F11	Hs.505545	NM_000617	SLC11A2	Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 2
F12	Hs.211602	NM_006306	SMC1A	Structural maintenance of chromosomes 1A
G01	Hs.744302	NM_080867	SOCS4	Suppressor of cytokine signaling 4
G02	Hs.494622	NM_004612	TGFBR1	Transforming growth factor, beta receptor 1
G03	Hs.174312	NM_138554	TLR4	Toll-like receptor 4
G04	Hs.567678	NM_001039111	TRIM71	Tripartite motif containing 71
G05	Hs.517981	NM_007275	TUSC2	Tumor suppressor candidate 2
G06	Hs.493401	NM_152896	UHRF2	Ubiquitin-like with PHD and ring finger domains 2
G07	Hs.42400	NM_182488	USP12	Ubiquitin specific peptidase 12
G08	Hs.132868	NM_032582	USP32	Ubiquitin specific peptidase 32
G09	Hs.188495	NM_014023	WDR37	WD repeat domain 37
G10	Hs.248164	NM_005430	WNT1	Wingless-type MMTV integration site family, member 1
G11	Hs.161276	NM_014872	ZBTB5	Zinc finger and BTB domain containing 5
G12	Hs.98041	NM_015346	ZFYVE26	Zinc finger, FYVE domain containing 26
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.544577	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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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