

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

Human miR-17 & miR-20a Targets

Cat. no. 330231 PAHS-6003ZA

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 miR-17 & miR-20a Targets RT² Profiler PCR Array profiles the expression of 84 hsa-miR-17-5p and hsa-miR-20a-5p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by hsa-miR-17-5p and hsa-miR-20a-5p. This array also includes target genes regulated by other miRNAs that have the same seed sequence as hsa-miR-17-5p and hsa-miR-20a, including hsa-miR-20b-5p, hsa-miR-93-5p, hsa-miR-106a-5p, hsa-miR-106b-5p, and hsa-miR-519d. 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-17 and miR-20a 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	AICDA	ALX4	ANKRD9	APP	ARHGAP1	ARID4B	BAHD1	BAMBI	BCL2	BCL2L11	BMPR2	BNIP2
B	CALD1	CAPRIN2	CCL1	CCND1	CCND2	CCNG2	CDKN1A	CRIM1	CROT	DNAJC27	DOCK4	E2F1
C	ELK3	ESR1	FBXO31	GPR137B	HIF1A	HIPK3	HSPA8	ICAM1	IL10	ITGB8	JAK1	KAT2B
D	KPNA2	MAP3K12	MAP3K2	MAP3K5	MAP3K8	MAPK14	MEF2D	MYLIP	NCOA3	NPAT	OBFC2A	PAK7
E	PBX3	PDE3B	PKD2	POLQ	PPARA	PPARG	PTEN	PTPRO	RAB12	RB1	RBL1	RBL2
F	RPS6KA5	RUNX1	SELE	SMAD4	SMURF1	ST6GALNAC3	STAT3	TCF7L1	TGFB2	TNFSF12	TNKS2	TP53INP1
G	TRIP10	TUSC2	USP3	VEGFA	VLDLR	WEE1	YES1	ZBTB7A	ZFPW2	ZFYVE26	ZNF148	ZNF1
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.149342	NM_020661	AICDA	Activation-induced cytidine deaminase
A02	Hs.436055	NM_021926	ALX4	ALX homeobox 4
A03	Hs.432945	NM_152326	ANKRD9	Ankyrin repeat domain 9
A04	Hs.434980	NM_000484	APP	Amyloid beta (A4) precursor protein
A05	Hs.138860	NM_004308	ARHGAP1	Rho GTPase activating protein 1
A06	Hs.533633	NM_016374	ARID4B	AT rich interactive domain 4B (RBP1-like)
A07	Hs.22109	NM_014952	BAHD1	Bromo adjacent homology domain containing 1
A08	Hs.533336	NM_012342	BAMBI	BMP and activin membrane-bound inhibitor homolog (Xenopus laevis)
A09	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A10	Hs.469658	NM_006538	BCL2L11	BCL2-like 11 (apoptosis facilitator)
A11	Hs.471119	NM_001204	BMPR2	Bone morphogenetic protein receptor, type II (serine/threonine kinase)
A12	Hs.646490	NM_004330	BNIP2	BCL2/adenovirus E1B 19kDa interacting protein 2
B01	Hs.490203	NM_004342	CALD1	Caldesmon 1
B02	Hs.234355	NM_023925	CAPRIN2	Caprin family member 2
B03	Hs.72918	NM_002981	CCL1	Chemokine (C-C motif) ligand 1
B04	Hs.523852	NM_053056	CCND1	Cyclin D1
B05	Hs.376071	NM_001759	CCND2	Cyclin D2
B06	Hs.13291	NM_004354	CCNG2	Cyclin G2
B07	Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
B08	Hs.699247	NM_016441	CRIM1	Cysteine rich transmembrane BMP regulator 1 (chordin-like)
B09	Hs.125039	NM_021151	CROT	Carnitine O-octanoyltransferase
B10	Hs.434993	NM_016544	DNAJC27	DnaJ (Hsp40) homolog, subfamily C, member 27
B11	Hs.654652	NM_014705	DOCK4	Dedicator of cytokinesis 4
B12	Hs.654393	NM_005225	E2F1	E2F transcription factor 1
C01	Hs.46523	NM_005230	ELK3	ELK3, ETS-domain protein (SRF accessory protein 2)
C02	Hs.208124	NM_000125	ESR1	Estrogen receptor 1
C03	Hs.567582	NM_024735	FBXO31	F-box protein 31
C04	Hs.498160	NM_003272	GPR137B	G protein-coupled receptor 137B
C05	Hs.597216	NM_001530	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
C06	Hs.201918	NM_005734	HIPK3	Homeodomain interacting protein kinase 3
C07	Hs.702021	NM_006597	HSPA8	Heat shock 70kDa protein 8
C08	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
C09	Hs.193717	NM_000572	IL10	Interleukin 10
C10	Hs.592171	NM_002214	ITGB8	Integrin, beta 8
C11	Hs.207538	NM_002227	JAK1	Janus kinase 1
C12	Hs.533055	NM_003884	KAT2B	K(lysine) acetyltransferase 2B
D01	Hs.594238	NM_002266	KPNA2	Karyopherin alpha 2 (RAG cohort 1, importin alpha 1)
D02	Hs.713539	NM_006301	MAP3K12	Mitogen-activated protein kinase kinase kinase 12
D03	Hs.145605	NM_006609	MAP3K2	Mitogen-activated protein kinase kinase kinase 2
D04	Hs.186486	NM_005923	MAP3K5	Mitogen-activated protein kinase kinase kinase 5
D05	Hs.432453	NM_005204	MAP3K8	Mitogen-activated protein kinase kinase kinase 8
D06	Hs.485233	NM_001315	MAPK14	Mitogen-activated protein kinase 14
D07	Hs.314327	NM_005920	MEF2D	Myocyte enhancer factor 2D
D08	Hs.484738	NM_013262	MYLIP	Myosin regulatory light chain interacting protein

Position	UniGene	GenBank	Symbol	Description
D09	Hs.592142	NM_181659	NCOA3	Nuclear receptor coactivator 3
D10	Hs.171061	NM_002519	NPAT	Nuclear protein, ataxia-telangiectasia locus
D11	Hs.591610	NM_001031716	OBFC2A	Oligonucleotide/oligosaccharide-binding fold containing 2A
D12	Hs.32539	NM_177990	PAK7	P21 protein (Cdc42/Rac)-activated kinase 7
E01	Hs.428027	NM_006195	PBX3	Pre-B-cell leukemia homeobox 3
E02	Hs.445711	NM_000922	PDE3B	Phosphodiesterase 3B, cGMP-inhibited
E03	Hs.181272	NM_000297	PKD2	Polycystic kidney disease 2 (autosomal dominant)
E04	Hs.241517	NM_199420	POLQ	Polymerase (DNA directed), theta
E05	Hs.103110	NM_005036	PPARA	Peroxisome proliferator-activated receptor alpha
E06	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
E07	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog
E08	Hs.160871	NM_002848	PTPRO	Protein tyrosine phosphatase, receptor type, O
E09	Hs.270074	NM_001025300	RAB12	RAB12, member RAS oncogene family
E10	Hs.408528	NM_000321	RB1	Retinoblastoma 1
E11	Hs.207745	NM_002895	RBL1	Retinoblastoma-like 1 (p107)
E12	Hs.513609	NM_005611	RBL2	Retinoblastoma-like 2 (p130)
F01	Hs.510225	NM_004755	RPS6KA5	Ribosomal protein S6 kinase, 90kDa, polypeptide 5
F02	Hs.149261	NM_001754	RUNX1	Runt-related transcription factor 1
F03	Hs.89546	NM_000450	SELE	Selectin E
F04	Hs.75862	NM_005359	SMAD4	SMAD family member 4
F05	Hs.189329	NM_020429	SMURF1	SMAD specific E3 ubiquitin protein ligase 1
F06	Hs.337040	NM_152996	ST6GALNAC3	ST6 (alpha-N-acetyl-neuraminy-2,3-beta-galactosyl-, 3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 3
F07	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
F08	Hs.516297	NM_031283	TCF7L1	Transcription factor 7-like 1 (T-cell specific, HMG-box)
F09	Hs.604277	NM_003242	TGFBR2	Transforming growth factor, beta receptor II (70/80kDa)
F10	Hs.415839	NM_003809	TNFSF12	Tumor necrosis factor (ligand) superfamily, member 12
F11	Hs.329327	NM_025235	TNKS2	Tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase 2
F12	Hs.700624	NM_033285	TP53INP1	Tumor protein p53 inducible nuclear protein 1
G01	Hs.515094	NM_004240	TRIP10	Thyroid hormone receptor interactor 10
G02	Hs.517981	NM_007275	TUSC2	Tumor suppressor candidate 2
G03	Hs.458499	NM_006537	USP3	Ubiquitin specific peptidase 3
G04	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
G05	Hs.370422	NM_003383	VLDLR	Very low density lipoprotein receptor
G06	Hs.249441	NM_003390	WEE1	WEE1 homolog (S. pombe)
G07	Hs.194148	NM_005433	YES1	V-src-1 Yamaguchi sarcoma viral oncogene homolog 1
G08	Hs.591384	NM_015898	ZBTB7A	Zinc finger and BTB domain containing 7A
G09	Hs.431009	NM_012082	ZFPM2	Zinc finger protein, multitype 2
G10	Hs.98041	NM_015346	ZFYVE26	Zinc finger, FYVE domain containing 26
G11	Hs.592591	NM_021964	ZNF148	Zinc finger protein 148
G12	Hs.371794	NM_021035	ZNFX1	Zinc finger, NFX1-type containing 1
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	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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