

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

Mouse miR-181 Targets

Cat. no. 330231 PAMM-6011ZA

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 Mouse miR-181 Targets RT² Profiler PCR Array profiles the expression of 84 mmu-miR-181a-5p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by mmu-miR-181a-5p. This array also includes target genes regulated by other miRNAs that have the same seed sequence as mmu-miR-181a-5p, including mmu-miR-181b-5p, mmu-miR-181c-5p, and mmu-miR-181d-5p. 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-181 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 cyclers (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	2310067B10R ik	4921524J17Ri k	Acvr2a	Adarb1	Adcy1	Aicda	Atg5	Atm	BC005537	Bcl2	Bcl2l11	Bdnf
B	Bmpr2	Caprin2	Casp3	Cblb	Cbx7	Cd69	Cdkn1b	Cdx2	Cops2	Cpne2	Cxcr3	Cyld
C	Ddit4	Disc1	Dock4	Dusp5	Dusp6	Eif4a2	Enkur	Etv6	Fbxl3	Fkbp1a	Fos	Gabra1
D	Gata6	Gls	Gria1	Gria2	Grik1	Hipk2	Hk2	Hmgb2	Igf1r	Il1a	Kank1	Kat2b
E	Kcna4	Klh2	Kras	Lrba	Map3k10	Mgmt	Mtap1b	Narf	Nlk	Nmt2	Notch4	Npepps
F	Plag1	Plau	Plcl2	Prkcd	Prox1	Ptpn11	Ptpn22	Rala	Rlf	Rnf2	Sirt1	Slc2a1
G	Stat1	Tanc2	Tbpl1	Tcerg1	Tcl1	Tcra	Tmem131	Vsn1	Ythdc1	Zfp180	Zfp36l1	Zfp36l2
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.23168	NM_028014	2310067B10 Rik	RIKEN cDNA 2310067B10 gene
A02	Mm.272748	NM_025722	4921524J17 Rik	RIKEN cDNA 4921524J17 gene
A03	Mm.314338	NM_007396	Acvr2a	Activin receptor IIA
A04	Mm.276815	NM_130895	Adarb1	Adenosine deaminase, RNA-specific, B1
A05	Mm.259733	NM_009622	Adcy1	Adenylate cyclase 1
A06	Mm.391503	NM_009645	Aicda	Activation-induced cytidine deaminase
A07	Mm.22264	NM_053069	Atg5	Autophagy-related 5 (yeast)
A08	Mm.5088	NM_007499	Atm	Ataxia telangiectasia mutated homolog (human)
A09	Mm.266668	NM_024473	BC005537	CDNA sequence BC005537
A10	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A11	Mm.141083	NM_009754	Bcl2l11	BCL2-like 11 (apoptosis facilitator)
A12	Mm.1442	NM_007540	Bdnf	Brain derived neurotrophic factor
B01	Mm.7106	NM_007561	Bmpr2	Bone morphogenic protein receptor, type II (serine/threonine kinase)
B02	Mm.150568	NM_181541	Caprin2	Caprin family member 2
B03	Mm.34405	NM_009810	Casp3	Caspase 3
B04	Mm.328206	NM_001033238	Cblb	Casitas B-lineage lymphoma b
B05	Mm.323442	NM_144811	Cbx7	Chromobox homolog 7
B06	Mm.74745	NM_001033122	Cd69	CD69 antigen
B07	Mm.2958	NM_009875	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
B08	Mm.20358	NM_007673	Cdx2	Caudal type homeobox 2
B09	Mm.3596	NM_009939	Cops2	COP9 (constitutive photomorphogenic) homolog, subunit 2 (Arabidopsis thaliana)
B10	Mm.291815	NM_153507	Cpne2	Copine II
B11	Mm.12876	NM_009910	Cxcr3	Chemokine (C-X-C motif) receptor 3
B12	Mm.24282	NM_173369	Cyld	Cylindromatosis (turban tumor syndrome)
C01	Mm.21697	NM_029083	Ddit4	DNA-damage-inducible transcript 4
C02	Mm.233504	NM_174854	Disc1	Disrupted in schizophrenia 1
C03	Mm.341423	NM_172803	Dock4	Dedicator of cytokinesis 4
C04	Mm.482424	NM_001085390	Dusp5	Dual specificity phosphatase 5
C05	Mm.1791	NM_026268	Dusp6	Dual specificity phosphatase 6
C06	Mm.260084	NM_013506	Eif4a2	Eukaryotic translation initiation factor 4A2
C07	Mm.27658	NM_027728	Enkur	Enkurin, TRPC channel interacting protein
C08	Mm.269995	NM_007961	Etv6	Ets variant gene 6 (TEL oncogene)
C09	Mm.214746	NM_015822	Fbxl3	F-box and leucine-rich repeat protein 3
C10	Mm.278458	NM_008019	Fkbp1a	FK506 binding protein 1a
C11	Mm.246513	NM_010234	Fos	FBJ osteosarcoma oncogene
C12	Mm.439668	NM_010250	Gabra1	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 1
D01	Mm.329287	NM_010258	Gata6	GATA binding protein 6
D02	Mm.440465	NM_001081081	Gls	Glutaminase
D03	Mm.4920	NM_008165	Gria1	Glutamate receptor, ionotropic, AMPA1 (alpha 1)
D04	Mm.220224	NM_013540	Gria2	Glutamate receptor, ionotropic, AMPA2 (alpha 2)

Position	UniGene	GenBank	Symbol	Description
D05	Mm.5134	NM_146072	Grik1	Glutamate receptor, ionotropic, kainate 1
D06	Mm.23790	NM_010433	Hipk2	Homeodomain interacting protein kinase 2
D07	Mm.255848	NM_013820	Hk2	Hexokinase 2
D08	Mm.279998	NM_008252	Hmgb2	High mobility group box 2
D09	Mm.275742	NM_010513	Igf1r	Insulin-like growth factor I receptor
D10	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
D11	Mm.260722	NM_181404	Kank1	KN motif and ankyrin repeat domains 1
D12	Mm.255025	NM_020005	Kat2b	K(lysine) acetyltransferase 2B
E01	Mm.142718	NM_021275	Kcna4	Potassium voltage-gated channel, shaker-related subfamily, member 4
E02	Mm.350347	NM_178633	Klhl2	Kelch-like 2, Mayven (Drosophila)
E03	Mm.383182	NM_021284	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
E04	Mm.439825	NM_030695	Lrba	LPS-responsive beige-like anchor
E05	Mm.389883	NM_001081292	Map3k10	Mitogen-activated protein kinase kinase kinase 10
E06	Mm.440219	NM_008598	Mgmt	O-6-methylguanine-DNA methyltransferase
E07	Mm.4173	NM_008634	Mtap1b	Microtubule-associated protein 1B
E08	Mm.291832	NM_026272	Narf	Nuclear prelamin A recognition factor
E09	Mm.9001	NM_008702	Nlk	Nemo like kinase
E10	Mm.392918	NM_008708	Nmt2	N-myristoyltransferase 2
E11	Mm.173813	NM_010929	Notch4	Notch gene homolog 4 (Drosophila)
E12	Mm.29824	NM_008942	Npepps	Aminopeptidase puromycin sensitive
F01	Mm.331467	NM_019969	Plag1	Pleiomorphic adenoma gene 1
F02	Mm.4183	NM_008873	Plau	Plasminogen activator, urokinase
F03	Mm.217362	NM_013880	Plcl2	Phospholipase C-like 2
F04	Mm.2314	NM_011103	Prkcd	Protein kinase C, delta
F05	Mm.132579	NM_008937	Prox1	Prospero-related homeobox 1
F06	Mm.8681	NM_011202	Ptprn11	Protein tyrosine phosphatase, non-receptor type 11
F07	Mm.395	NM_008979	Ptprn22	Protein tyrosine phosphatase, non-receptor type 22 (lymphoid)
F08	Mm.27348	NM_019491	Rala	V-ral simian leukemia viral oncogene homolog A (ras related)
F09	Mm.215745	NM_001081013	Rlf	Rearranged L-myc fusion sequence
F10	Mm.482250	NM_011277	Rnf2	Ring finger protein 2
F11	Mm.351459	NM_019812	Sirt1	Sirtuin 1 (silent mating type information regulation 2, homolog) 1 (S. cerevisiae)
F12	Mm.21002	NM_011400	Slc2a1	Solute carrier family 2 (facilitated glucose transporter), member 1
G01	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G02	Mm.22501	NM_181071	Tanc2	Tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2
G03	Mm.86670	NM_011603	Tbpl1	TATA box binding protein-like 1
G04	Mm.270511	NM_001039474	Tcerg1	Transcription elongation regulator 1 (CA150)
G05	Mm.18154	NM_009337	Tcl1	T-cell lymphoma breakpoint 1
G06	Mm.213248	U07662	Tcra	T-cell receptor alpha chain
G07	Mm.186943	NM_018872	Tmem131	Transmembrane protein 131
G08	Mm.27005	NM_012038	Vsnl1	Visinin-like 1
G09	Mm.196325	NM_177680	Ythdc1	YTH domain containing 1
G10	Mm.32254	NM_001045486	Zfp180	Zinc finger protein 180
G11	Mm.235132	NM_007564	Zfp36l1	Zinc finger protein 36, C3H type-like 1
G12	Mm.259321	NM_001001806	Zfp36l2	Zinc finger protein 36, C3H type-like 2
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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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