

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

## Mouse miR-29 Targets

Cat. no. 330231 PAMM-6012ZA

For pathway expression analysis

| Format                                       | For use with the following real-time cyclers                                                                                                                                                                                                                                          |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RT <sup>2</sup> 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 <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®, DNA Engine Opticon 2; Stratagene Mx4000®                                                                                                                                                                              |
| 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® LightCycler® 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® BioMark™                                                                                                                                                                                                                                                                    |



Sample & Assay Technologies

## Description

The Mouse miR-29 Targets RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 mmu-miR-29a-3p target genes. This panel of 84 genes includes currently known experimentally verified plus bioinformatically predicted target genes regulated by mmu-miR-29a-3p. This array also includes target genes regulated by other miRNAs that have the same seed sequence as mmu-miR-29a-3p, including mmu-miR-29b-3p and mmu-miR-29c-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-29 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       |
|----------|----------|---------|----------|---------|----------|--------|--------|----------|---------|--------|---------|----------|
| <b>A</b> | Acvr2a   | Adam12  | Adams9   | Ak3     | Bace1    | Bak1   | Bbc3   | Bcl2     | Bcl2l11 | Bmf    | Cd276   | Cdc42    |
| <b>B</b> | Cdk6     | Col15a1 | Col1a1   | Col1a2  | Col2a1   | Col3a1 | Col4a1 | Col4a2   | Col5a2  | Col5a3 | Col7a1  | Ctnnbip1 |
| <b>C</b> | D0H4S114 | Dgkd    | Dicer1   | Dnajb11 | Dnmt1    | Dnmt3a | Dnmt3b | Dusp2    | Elf2    | Eln    | Eomes   | Fbn1     |
| <b>D</b> | Fem1b    | Fga     | Fgb      | Fgg     | Foxj2    | Glul   | Grn    | Hdac4    | Hrk     | Ifi30  | Ireb2   | Ilg11    |
| <b>E</b> | Lamc1    | Lpl     | Mark3    | Mbtd1   | Mcl1     | Mmp15  | Mmp24  | Mycn     | Nav3    | Nid1   | Pcdha12 | Pik3r1   |
| <b>F</b> | Pmp22    | Ppm1d   | Ppp1r13b | Pten    | Pxdn     | Rif    | S100b  | Serpinh9 | Sestd1  | Sfpq   | Sp1     | Sparc    |
| <b>G</b> | Spry1    | Srsf10  | Tbx21    | Tctap2c | Tcl1     | Tdg    | Tet1   | Tgfb3    | Tnfrsf3 | Vegfa  | Zfp36   | Zfp361l  |
| <b>H</b> | Actb     | B2m     | Gapdh    | Gusb    | Hsp90ab1 | MGDC   | RTC    | RTC      | RTC     | PPC    | PPC     | PPC      |

# Gene table: RT<sup>2</sup> Profiler PCR Array

| Position | UniGene   | GenBank   | Symbol   | Description                                                                                   |
|----------|-----------|-----------|----------|-----------------------------------------------------------------------------------------------|
| A01      | Mm.314338 | NM_007396 | Acvr2a   | Activin receptor IIA                                                                          |
| A02      | Mm.439714 | NM_007400 | Adam12   | A disintegrin and metallopeptidase domain 12 (meltrin alpha)                                  |
| A03      | Mm.158235 | NM_175314 | Adams9   | A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 9 |
| A04      | Mm.196067 | NM_021299 | Ak3      | Adenylate kinase 3                                                                            |
| A05      | Mm.24044  | NM_011792 | Bace1    | Beta-site APP cleaving enzyme 1                                                               |
| A06      | Mm.2443   | NM_007523 | Bak1     | BCL2-antagonist/killer 1                                                                      |
| A07      | Mm.7660   | NM_133234 | Bbc3     | BCL2 binding component 3                                                                      |
| A08      | Mm.257460 | NM_009741 | Bcl2     | B-cell leukemia/lymphoma 2                                                                    |
| A09      | Mm.141083 | NM_009754 | Bcl2l11  | BCL2-like 11 (apoptosis facilitator)                                                          |
| A10      | Mm.210125 | NM_138313 | Bmf      | Bcl2 modifying factor                                                                         |
| A11      | Mm.5356   | NM_133983 | Cd276    | CD276 antigen                                                                                 |
| A12      | Mm.1022   | NM_009861 | Cdc42    | Cell division cycle 42 homolog (S. cerevisiae)                                                |
| B01      | Mm.31672  | NM_009873 | Cdk6     | Cyclin-dependent kinase 6                                                                     |
| B02      | Mm.233547 | NM_009928 | Col15a1  | Collagen, type XV, alpha 1                                                                    |
| B03      | Mm.277735 | NM_007742 | Col1a1   | Collagen, type I, alpha 1                                                                     |
| B04      | Mm.277792 | NM_007743 | Col1a2   | Collagen, type I, alpha 2                                                                     |
| B05      | Mm.2423   | NM_031163 | Col2a1   | Collagen, type II, alpha 1                                                                    |
| B06      | Mm.249555 | NM_009930 | Col3a1   | Collagen, type III, alpha 1                                                                   |
| B07      | Mm.738    | NM_009931 | Col4a1   | Collagen, type IV, alpha 1                                                                    |
| B08      | Mm.181021 | NM_009932 | Col4a2   | Collagen, type IV, alpha 2                                                                    |
| B09      | Mm.10299  | NM_007737 | Col5a2   | Collagen, type V, alpha 2                                                                     |
| B10      | Mm.334994 | NM_016919 | Col5a3   | Collagen, type V, alpha 3                                                                     |
| B11      | Mm.6200   | NM_007738 | Col7a1   | Collagen, type VII, alpha 1                                                                   |
| B12      | Mm.299735 | NM_023465 | Ctnnbip1 | Catenin beta interacting protein 1                                                            |
| C01      | Mm.407415 | NM_053078 | D0H4S114 | DNA segment, human D4S114                                                                     |
| C02      | Mm.277217 | NM_177646 | Dgkd     | Diacylglycerol kinase, delta                                                                  |
| C03      | Mm.21135  | NM_148948 | Dicer1   | Dicer1, Dcr-1 homolog (Drosophila)                                                            |
| C04      | Mm.37516  | NM_026400 | Dnajb11  | DnaJ (Hsp40) homolog, subfamily B, member 11                                                  |
| C05      | Mm.128580 | NM_010066 | Dnmt1    | DNA methyltransferase (cytosine-5) 1                                                          |
| C06      | Mm.5001   | NM_007872 | Dnmt3a   | DNA methyltransferase 3A                                                                      |
| C07      | Mm.89772  | NM_010068 | Dnmt3b   | DNA methyltransferase 3B                                                                      |
| C08      | Mm.4729   | NM_010090 | Dusp2    | Dual specificity phosphatase 2                                                                |
| C09      | Mm.131038 | NM_023502 | Elf2     | E74-like factor 2                                                                             |
| C10      | Mm.275320 | NM_007925 | Eln      | Elastin                                                                                       |
| C11      | Mm.200692 | NM_010136 | Eomes    | Eomesodermin homolog (Xenopus laevis)                                                         |
| C12      | Mm.271644 | NM_007993 | Fbn1     | Fibrillin 1                                                                                   |
| D01      | Mm.24069  | NM_010193 | Fem1b    | Feminization 1 homolog b (C. elegans)                                                         |
| D02      | Mm.88793  | NM_010196 | Fga      | Fibrinogen alpha chain                                                                        |
| D03      | Mm.30063  | NM_181849 | Fgb      | Fibrinogen beta chain                                                                         |
| D04      | Mm.16422  | NM_133862 | Fgg      | Fibrinogen gamma chain                                                                        |
| D05      | Mm.87142  | NM_021899 | Foxj2    | Forkhead box J2                                                                               |
| D06      | Mm.210745 | NM_008131 | Glul     | Glutamate-ammonia ligase (glutamine synthetase)                                               |
| D07      | Mm.1568   | NM_008175 | Grn      | Granulin                                                                                      |
| D08      | Mm.318567 | NM_207225 | Hdac4    | Histone deacetylase 4                                                                         |

| Position | UniGene   | GenBank      | Symbol   | Description                                                                              |
|----------|-----------|--------------|----------|------------------------------------------------------------------------------------------|
| D09      | Mm.384468 | NM_007545    | Hrk      | Harakiri, BCL2 interacting protein (contains only BH3 domain)                            |
| D10      | Mm.30241  | NM_023065    | Ifi30    | Interferon gamma inducible protein 30                                                    |
| D11      | Mm.208991 | NM_022655    | Ireb2    | Iron responsive element binding protein 2                                                |
| D12      | Mm.34883  | NM_176922    | Itga11   | Integrin alpha 11                                                                        |
| E01      | Mm.1249   | NM_010683    | Lamc1    | Laminin, gamma 1                                                                         |
| E02      | Mm.1514   | NM_008509    | Lpl      | Lipoprotein lipase                                                                       |
| E03      | Mm.28678  | NM_021516    | Mark3    | MAP/microtubule affinity-regulating kinase 3                                             |
| E04      | Mm.210334 | NM_134012    | Mbt1     | Mbt domain containing 1                                                                  |
| E05      | Mm.1639   | NM_008562    | Mcl1     | Myeloid cell leukemia sequence 1                                                         |
| E06      | Mm.217116 | NM_008609    | Mmp15    | Matrix metalloproteinase 15                                                              |
| E07      | Mm.330707 | NM_010808    | Mmp24    | Matrix metalloproteinase 24                                                              |
| E08      | Mm.16469  | NM_008709    | Mycn     | V-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)             |
| E09      | Mm.225050 | NM_001081035 | Nav3     | Neuron navigator 3                                                                       |
| E10      | Mm.4691   | NM_010917    | Nid1     | Nidogen 1                                                                                |
| E11      | Mm.308500 | NM_138663    | Pcdha12  | Protocadherin alpha 12                                                                   |
| E12      | Mm.259333 | NM_001024955 | Pik3r1   | Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 1 (p85 alpha)             |
| F01      | Mm.1237   | NM_008885    | Pmp22    | Peripheral myelin protein 22                                                             |
| F02      | Mm.45609  | NM_016910    | Ppm1d    | Protein phosphatase 1D magnesium-dependent, delta isoform                                |
| F03      | Mm.313076 | NM_011625    | Ppp1r13b | Protein phosphatase 1, regulatory (inhibitor) subunit 13B                                |
| F04      | Mm.245395 | NM_008960    | Pten     | Phosphatase and tensin homolog                                                           |
| F05      | Mm.251774 | NM_181395    | Pxdn     | Peroxidasin homolog (Drosophila)                                                         |
| F06      | Mm.215745 | NM_001081013 | Rlf      | Rearranged L-myc fusion sequence                                                         |
| F07      | Mm.235998 | NM_009115    | S100b    | S100 protein, beta polypeptide, neural                                                   |
| F08      | Mm.272569 | NM_009256    | Serpib9  | Serine (or cysteine) peptidase inhibitor, clade B, member 9                              |
| F09      | Mm.27120  | NM_175465    | Sestd1   | SEC14 and spectrin domains 1                                                             |
| F10      | Mm.257276 | NM_023603    | Sfpq     | Splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated) |
| F11      | Mm.4618   | NM_013672    | Sp1      | Trans-acting transcription factor 1                                                      |
| F12      | Mm.291442 | NM_009242    | Sparc    | Secreted acidic cysteine rich glycoprotein                                               |
| G01      | Mm.330986 | NM_011896    | Spry1    | Sprouty homolog 1 (Drosophila)                                                           |
| G02      | Mm.10229  | NM_010178    | Srsf10   | Serine/arginine-rich splicing factor 10                                                  |
| G03      | Mm.477879 | NM_019507    | Tbx21    | T-box 21                                                                                 |
| G04      | Mm.3629   | NM_009335    | Tcfap2c  | Transcription factor AP-2, gamma                                                         |
| G05      | Mm.18154  | NM_009337    | Tcl1     | T-cell lymphoma breakpoint 1                                                             |
| G06      | Mm.347607 | NM_011561    | Tdg      | Thymine DNA glycosylase                                                                  |
| G07      | Mm.17774  | NM_027384    | Tet1     | Tet oncogene 1                                                                           |
| G08      | Mm.3992   | NM_009368    | Tgfb3    | Transforming growth factor, beta 3                                                       |
| G09      | Mm.116683 | NM_009397    | Tnfaip3  | Tumor necrosis factor, alpha-induced protein 3                                           |
| G10      | Mm.282184 | NM_009505    | Vegfa    | Vascular endothelial growth factor A                                                     |
| G11      | Mm.389856 | NM_011756    | Zfp36    | Zinc finger protein 36                                                                   |
| G12      | Mm.235132 | NM_007564    | Zfp361l1 | Zinc finger protein 36, C3H type-like 1                                                  |
| 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, 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 <sup>™</sup> 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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