

# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene® Format)

## Mouse Angiogenic Growth Factors

Cat. no. 330231 PAMM-072ZR

For pathway expression analysis

| Format                                       | For use with the following real-time cyclers |
|----------------------------------------------|----------------------------------------------|
| RT <sup>2</sup> Profiler PCR Array, Format R | Rotor-Gene Q, other Rotor-Gene cyclers       |

### Description

The Mouse Angiogenic Growth Factors RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 growth factors and inhibitors related to angiogenesis. This array contains the growth factors, cytokines, and chemokines that promote the biogenesis of new blood vessels and the genes that encode inhibitors of this process. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the promotion and inhibition of angiogenesis 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 the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

For long term storage, keep plates at –20°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.



## Array layout

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc™ (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

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

| Position | UniGene   | GenBank      | Symbol  | Description                                                                                                    |
|----------|-----------|--------------|---------|----------------------------------------------------------------------------------------------------------------|
| A01      | Mm.1421   | NM_009621    | Adams1  | A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 1                  |
| A02      | Mm.36785  | NM_025630    | Aggf1   | Angiogenic factor with G patch and FHA domains 1                                                               |
| A03      | Mm.100068 | NM_153319    | Amot    | Angiomotin                                                                                                     |
| A04      | Mm.309336 | NM_009640    | Angpt1  | Angiopoietin 1                                                                                                 |
| A05      | Mm.439874 | NM_007426    | Angpt2  | Angiopoietin 2                                                                                                 |
| A06      | Mm.389206 | NM_028333    | Angptl1 | Angiopoietin-like 1                                                                                            |
| A07      | Mm.28341  | NM_013913    | Angptl3 | Angiopoietin-like 3                                                                                            |
| A08      | Mm.196189 | NM_020581    | Angptl4 | Angiopoietin-like 4                                                                                            |
| A09      | Mm.43133  | NM_174991    | Bai1    | Brain-specific angiogenesis inhibitor 1                                                                        |
| A10      | Mm.23811  | NM_007569    | Btg1    | B-cell translocation gene 1, anti-proliferative                                                                |
| A11      | Mm.101591 | NM_010016    | Cd55    | CD55 antigen                                                                                                   |
| A12      | Mm.359026 | NM_181858    | Cd59b   | CD59b antigen                                                                                                  |
| B01      | Mm.1361   | NM_009889    | Cga     | Glycoprotein hormones, alpha subunit                                                                           |
| B02      | Mm.4137   | NM_007693    | Chga    | Chromogranin A                                                                                                 |
| B03      | Mm.2390   | NM_007709    | Cited1  | Cbp/p300-interacting transactivator with Glu/Asp-rich carboxy-terminal domain 1                                |
| B04      | Mm.4352   | NM_009929    | Col18a1 | Collagen, type XVIII, alpha 1                                                                                  |
| B05      | Mm.389135 | NM_007734    | Col4a3  | Collagen, type IV, alpha 3                                                                                     |
| B06      | Mm.236081 | NM_009953    | Crhrl2  | Corticotropin releasing hormone receptor 2                                                                     |
| B07      | Mm.1238   | NM_009971    | Csf3    | Colony stimulating factor 3 (granulocyte)                                                                      |
| B08      | Mm.877    | NM_021274    | Cxcl10  | Chemokine (C-X-C motif) ligand 10                                                                              |
| B09      | Mm.4979   | NM_009140    | Cxcl2   | Chemokine (C-X-C motif) ligand 2                                                                               |
| B10      | Mm.125580 | NM_001037987 | Edil3   | EGF-like repeats and discoidin I-like domains 3                                                                |
| B11      | Mm.268933 | NM_178444    | Egfl7   | EGF-like domain 7                                                                                              |
| B12      | Mm.83526  | NM_030711    | Erap1   | Endoplasmic reticulum aminopeptidase 1                                                                         |
| C01      | Mm.290822 | NM_001003817 | ErbB2   | V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian) |
| C02      | Mm.4791   | NM_007950    | Ereg    | Epiregulin                                                                                                     |
| C03      | Mm.241282 | NM_010197    | Fgf1    | Fibroblast growth factor 1                                                                                     |
| C04      | Mm.473689 | NM_008006    | Fgf2    | Fibroblast growth factor 2                                                                                     |
| C05      | Mm.297978 | NM_010216    | Figf    | C-fos induced growth factor                                                                                    |
| C06      | Mm.193099 | NM_010233    | Fnl1    | Fibronectin 1                                                                                                  |
| C07      | Mm.33897  | NM_010426    | Foxf1a  | Forkhead box F1a                                                                                               |
| C08      | Mm.42148  | NM_008021    | Foxm1   | Forkhead box M1                                                                                                |
| C09      | Mm.240299 | NM_018789    | Foxo4   | Forkhead box O4                                                                                                |
| C10      | Mm.4913   | NM_008046    | Fst     | Follistatin                                                                                                    |
| C11      | Mm.41417  | NM_133248    | Glmn    | Glomulin, FKBP associated protein                                                                              |
| C12      | Mm.1568   | NM_008175    | Grn     | Granulin                                                                                                       |
| D01      | Mm.29581  | NM_010423    | Hey1    | Hairy/enhancer-of-split related with YRPW motif 1                                                              |
| D02      | Mm.103573 | NM_013904    | Hey2    | Hairy/enhancer-of-split related with YRPW motif 2                                                              |
| D03      | Mm.267078 | NM_010427    | Hgf     | Hepatocyte growth factor                                                                                       |
| D04      | Mm.265786 | NM_152803    | Hpse    | Heparanase                                                                                                     |
| D05      | Mm.1245   | NM_010510    | Ifnb1   | Interferon beta 1, fibroblast                                                                                  |
| D06      | Mm.240327 | NM_008337    | Ifng    | Interferon gamma                                                                                               |
| D07      | Mm.103783 | NM_008351    | Il12a   | Interleukin 12A                                                                                                |
| D08      | Mm.239707 | NM_008352    | Il12b   | Interleukin 12B                                                                                                |
| D09      | Mm.285    | NM_010612    | Kdr     | Kinase insert domain protein receptor                                                                          |
| D10      | Mm.277072 | NM_008493    | Lep     | Leptin                                                                                                         |
| D11      | Mm.906    | NM_010784    | Mdk     | Midkine                                                                                                        |
| D12      | Mm.32257  | NM_145136    | Myocd   | Myocardin                                                                                                      |
| E01      | Mm.130054 | NM_008745    | Ntrk2   | Neurotrophic tyrosine kinase, receptor, type 2                                                                 |
| E02      | Mm.144089 | NM_011057    | Pdgfb   | Platelet derived growth factor, B polypeptide                                                                  |
| E03      | Mm.332490 | NM_019932    | Pf4     | Platelet factor 4                                                                                              |
| E04      | Mm.4809   | NM_008827    | Pgf     | Placental growth factor                                                                                        |
| E05      | Mm.971    | NM_008877    | Plg     | Plasminogen                                                                                                    |
| E06      | Mm.1270   | NM_011164    | Prl     | Prolactin                                                                                                      |

| Position | UniGene   | GenBank   | Symbol   | Description                                                                |
|----------|-----------|-----------|----------|----------------------------------------------------------------------------|
| E07      | Mm.3258   | NM_011120 | Prl7d1   | Prolactin family 7, subfamily d, member 1                                  |
| E08      | Mm.279690 | NM_008973 | Ptn      | Pleiotrophin                                                               |
| E09      | Mm.330393 | NM_008982 | Ptpri    | Protein tyrosine phosphatase, receptor type, J                             |
| E10      | Mm.384135 | NM_021881 | Qk       | Quaking                                                                    |
| E11      | Mm.259653 | NM_145452 | Rasa1    | RAS p21 protein activator 1                                                |
| E12      | Mm.687    | NM_007483 | Rhob     | Ras homolog gene family, member B                                          |
| F01      | Mm.202665 | NM_021472 | Rnase4   | Ribonuclease, RNase A family 4                                             |
| F02      | Mm.279485 | NM_145135 | Rnh1     | Ribonuclease/angiogenin inhibitor 1                                        |
| F03      | Mm.4081   | NM_009821 | Runx1    | Runt related transcription factor 1                                        |
| F04      | Mm.260770 | NM_080844 | Serpinc1 | Serine (or cysteine) peptidase inhibitor, clade C (antithrombin), member 1 |
| F05      | Mm.250422 | NM_008871 | Serpine1 | Serine (or cysteine) peptidase inhibitor, clade E, member 1                |
| F06      | Mm.2044   | NM_011340 | Serpinf1 | Serine (or cysteine) peptidase inhibitor, clade F, member 1                |
| F07      | Mm.57202  | NM_009170 | Shh      | Sonic hedgehog                                                             |
| F08      | Mm.29279  | NM_176996 | Smo      | Smoothened homolog (Drosophila)                                            |
| F09      | Mm.220821 | NM_138672 | Stab1    | Stabilin 1                                                                 |
| F10      | Mm.5090   | NM_011562 | Tdgf1    | Teratocarcinoma-derived growth factor 1                                    |
| F11      | Mm.137222 | NM_031199 | Tgfa     | Transforming growth factor alpha                                           |
| F12      | Mm.248380 | NM_011577 | Tgfb1    | Transforming growth factor, beta 1                                         |
| G01      | Mm.4159   | NM_011580 | Thbs1    | Thrombospondin 1                                                           |
| G02      | Mm.4345   | NM_011587 | Tie1     | Tyrosine kinase with immunoglobulin-like and EGF-like domains 1            |
| G03      | Mm.8245   | NM_011593 | Timp1    | Tissue inhibitor of metalloproteinase 1                                    |
| G04      | Mm.206505 | NM_011594 | Timp2    | Tissue inhibitor of metalloproteinase 2                                    |
| G05      | Mm.4871   | NM_011595 | Timp3    | Tissue inhibitor of metalloproteinase 3                                    |
| G06      | Mm.255607 | NM_080639 | Timp4    | Tissue inhibitor of metalloproteinase 4                                    |
| G07      | Mm.1293   | NM_013693 | Tnf      | Tumor necrosis factor                                                      |
| G08      | Mm.39469  | NM_009405 | Tnni2    | Troponin I, skeletal, fast 2                                               |
| G09      | Mm.27674  | NM_009406 | Tnni3    | Troponin I, cardiac 3                                                      |
| G10      | Mm.282184 | NM_009505 | Vegfa    | Vascular endothelial growth factor A                                       |
| G11      | Mm.316754 | NM_027462 | Wars2    | Tryptophanyl tRNA synthetase 2 (mitochondrial)                             |
| G12      | Mm.389339 | NM_144783 | Wt1      | Wilms tumor 1 homolog                                                      |
| 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 ROX <sup>™</sup> FAST Mastermix (2)* | For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers | 330620   |

\* 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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