

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

Mouse Angiogenesis

Cat. no. 330231 PAMM-024ZA

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 Angiogenesis RT² Profiler PCR Array profiles the expression of 84 key genes involved in modulating the biological processes of angiogenesis. The array includes growth factors and their receptors, chemokines and cytokines, matrix and adhesion molecules, proteases and their inhibitors, as well as transcription factors, all involved in the development of new blood vessels. Angiogenesis is a hallmark in the pathology of many diseases, including cancer, ischemia, atherosclerosis, and inflammatory diseases. Angiogenesis plays additional roles in normal development and physiological processes in adults, including wound healing and tissue regeneration. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to angiogenesis 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	Akt1	Ang	Angpt1	Angpt2	Anpep	Bai1	Ccl11	Ccl2	Cdh5	Col18a1	Col4a3	Csf3
B	Ctgf	Cxcl1	Cxcl2	Cxcl5	Edn1	Efn1	Efnb2	Egf	Eng	Epas1	Ephb4	Erb2
C	F2	F3	Fgf1	Fgf2	Fgf6	Fgfr3	Figf	Fit1	Fn1	Hgf	Hif1a	Ifng
D	Igf1	Il1b	Il6	Itgav	Itgb3	Jag1	Kdr	Lect1	Lep	Mapk14	Mdk	Mmp14
E	Mmp19	Mmp2	Mmp9	Nos3	Nrp1	Nrp2	Pdgfra	Pecam1	Pgf	Plau	Plg	Plgs1
F	Plk2	S1pr1	Serpine1	Serpinf1	Smad5	Sphk1	Tbx1	Tek	Tgfa	Tgfb1	Tgfb2	Tgfb3
G	Tgfb1	Thbs1	Thbs2	Tie1	Timp1	Timp2	Tnf	Tnfsf12	Tymp	Vegfa	Vegfb	Vegfc
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.6645	NM_009652	Akt1	Thymoma viral proto-oncogene 1
A02	N/A	NM_007447	Ang	Angiogenin, ribonuclease, RNase A family, 5
A03	Mm.309336	NM_009640	Angpt1	Angiopoietin 1
A04	Mm.439874	NM_007426	Angpt2	Angiopoietin 2
A05	Mm.4487	NM_008486	Anpep	Alanyl (membrane) aminopeptidase
A06	Mm.43133	NM_174991	Bai1	Brain-specific angiogenesis inhibitor 1
A07	Mm.4686	NM_011330	Ccl11	Chemokine (C-C motif) ligand 11
A08	Mm.290320	NM_011333	Ccl2	Chemokine (C-C motif) ligand 2
A09	Mm.21767	NM_009868	Cdh5	Cadherin 5
A10	Mm.4352	NM_009929	Col18a1	Collagen, type XVIII, alpha 1
A11	Mm.389135	NM_007734	Col4a3	Collagen, type IV, alpha 3
A12	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
B01	Mm.390287	NM_010217	Ctgf	Connective tissue growth factor
B02	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
B03	Mm.4979	NM_009140	Cxcl2	Chemokine (C-X-C motif) ligand 2
B04	Mm.4660	NM_009141	Cxcl5	Chemokine (C-X-C motif) ligand 5
B05	Mm.14543	NM_010104	Edn1	Endothelin 1
B06	Mm.15675	NM_010107	Efn1	Ephrin A1
B07	Mm.209813	NM_010111	Efnb2	Ephrin B2
B08	Mm.252481	NM_010113	Egf	Epidermal growth factor
B09	Mm.225297	NM_007932	Eng	Endoglin
B10	Mm.1415	NM_010137	Epas1	Endothelial PAS domain protein 1
B11	Mm.34533	NM_010144	Ephb4	Eph receptor B4
B12	Mm.290822	NM_001003817	Erb2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
C01	Mm.89048	NM_010168	F2	Coagulation factor II
C02	Mm.273188	NM_010171	F3	Coagulation factor III
C03	Mm.241282	NM_010197	Fgf1	Fibroblast growth factor 1
C04	Mm.473689	NM_008006	Fgf2	Fibroblast growth factor 2
C05	Mm.3403	NM_010204	Fgf6	Fibroblast growth factor 6
C06	Mm.6904	NM_008010	Fgfr3	Fibroblast growth factor receptor 3
C07	Mm.297978	NM_010216	Figf	C-fos induced growth factor
C08	Mm.389712	NM_010228	Fit1	FMS-like tyrosine kinase 1
C09	Mm.193099	NM_010233	Fn1	Fibronectin 1
C10	Mm.267078	NM_010427	Hgf	Hepatocyte growth factor
C11	Mm.3879	NM_010431	Hif1a	Hypoxia inducible factor 1, alpha subunit
C12	Mm.240327	NM_008337	Ifng	Interferon gamma
D01	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D02	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D03	Mm.1019	NM_031168	Il6	Interleukin 6
D04	Mm.227	NM_008402	Itgav	Integrin alpha V
D05	Mm.87150	NM_016780	Itgb3	Integrin beta 3
D06	Mm.22398	NM_013822	Jag1	Jagged 1
D07	Mm.285	NM_010612	Kdr	Kinase insert domain protein receptor
D08	Mm.46561	NM_010701	Lect1	Leukocyte cell derived chemotaxin 1

Position	UniGene	GenBank	Symbol	Description
D09	Mm.277072	NM_008493	Lep	Leptin
D10	Mm.311337	NM_011951	Mapk14	Mitogen-activated protein kinase 14
D11	Mm.906	NM_010784	Mdk	Midkine
D12	Mm.280175	NM_008608	Mmp14	Matrix metalloproteinase 14 (membrane-inserted)
E01	Mm.131266	NM_021412	Mmp19	Matrix metalloproteinase 19
E02	Mm.29564	NM_008610	Mmp2	Matrix metalloproteinase 2
E03	Mm.4406	NM_013599	Mmp9	Matrix metalloproteinase 9
E04	Mm.258415	NM_008713	Nos3	Nitric oxide synthase 3, endothelial cell
E05	Mm.271745	NM_008737	Nrp1	Neuropilin 1
E06	Mm.266341	NM_010939	Nrp2	Neuropilin 2
E07	Mm.2675	NM_008808	Pdgfra	Platelet derived growth factor, alpha
E08	Mm.343951	NM_008816	Pecam1	Platelet/endothelial cell adhesion molecule 1
E09	Mm.4809	NM_008827	Pgf	Placental growth factor
E10	Mm.4183	NM_008873	Plau	Plasminogen activator, urokinase
E11	Mm.971	NM_008877	Plg	Plasminogen
E12	Mm.275434	NM_008969	Ptgs1	Prostaglandin-endoperoxide synthase 1
F01	Mm.254494	NM_007982	Ptk2	PTK2 protein tyrosine kinase 2
F02	Mm.982	NM_007901	S1pr1	Sphingosine-1-phosphate receptor 1
F03	Mm.250422	NM_008871	Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, member 1
F04	Mm.2044	NM_011340	Serpinf1	Serine (or cysteine) peptidase inhibitor, clade F, member 1
F05	Mm.272920	NM_008541	Smad5	MAD homolog 5 (Drosophila)
F06	Mm.20944	NM_025367	Sphk1	Sphingosine kinase 1
F07	Mm.295194	NM_011532	Tbx1	T-box 1
F08	Mm.14313	NM_013690	Tek	Endothelial-specific receptor tyrosine kinase
F09	Mm.137222	NM_031199	Tgfa	Transforming growth factor alpha
F10	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
F11	Mm.18213	NM_009367	Tgfb2	Transforming growth factor, beta 2
F12	Mm.3992	NM_009368	Tgfb3	Transforming growth factor, beta 3
G01	Mm.197552	NM_009370	Tgfb3r1	Transforming growth factor, beta receptor 1
G02	Mm.4159	NM_011580	Thbs1	Thrombospondin 1
G03	Mm.26688	NM_011581	Thbs2	Thrombospondin 2
G04	Mm.4345	NM_011587	Tie1	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1
G05	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G06	Mm.206505	NM_011594	Timp2	Tissue inhibitor of metalloproteinase 2
G07	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G08	Mm.344820	NM_011614	Tnfrsf12	Tumor necrosis factor (ligand) superfamily, member 12
G09	Mm.287977	NM_138302	Tymp	Thymidine phosphorylase
G10	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G11	Mm.15607	NM_011697	Vegfb	Vascular endothelial growth factor B
G12	Mm.1402	NM_009506	Vegfc	Vascular endothelial growth factor C
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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