

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

Mouse Endothelial Cell Biology

Cat. no. 330231 PAMM-015ZA

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 Endothelial Cell Biology RT² Profiler PCR Array profiles the expression of 84 genes related to endothelial cell biology. Endothelial cells play a critical role in the progression of disease processes including inflammation, atherosclerosis, and tumor angiogenesis. This array includes genes involved in permissibility and vessel tone, angiogenesis, endothelial cell activation and endothelial cell injury. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the atherosclerosis 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	Ace	Adam17	Agt	Agtr1a	Angpt1	Anxa5	ApoE	Bax	Bcl2	Bcl2l1	Casp1	Casp3
B	Cav1	Ccl2	Ccl5	Cdh5	Cflar	Col18a1	Cradd	Cx3cl1	Cxcl1	Cxcl2	Cxcr5	Edn1
C	Edn2	Ednra	Eng	F2r	F2rl1	F3	Fas	Fasl	Fgf1	Fgf2	Flt1	Fn1
D	Hif1a	Icam1	Il11	Il1b	Il3	Il6	Il7	Itga5	Itgav	Itgb1	Itgb3	Kdr
E	Kit	Mmp1a	Mmp2	Mmp9	Nos3	Nppb	Npr1	Ocln	Pdgfra	Pecam1	Pf4	Pgf
F	Plat	Plau	Plg	Procr	Ptgis	Ptgs2	Sele	Sell	Selp	Selp1g	Serpine1	Sod1
G	Tek	Tfpi	Tgfb1	Thbd	Thbs1	Timp1	Tnf	Tnfsf10	Tymp	Vcam1	Vegfa	Vwf
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.754	NM_009598	Ace	Angiotensin I converting enzyme (peptidyl-dipeptidase A) 1
A02	Mm.27681	NM_009615	Adam17	A disintegrin and metallopeptidase domain 17
A03	Mm.301626	NM_007428	Agt	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A04	Mm.35062	NM_177322	Agtr1a	Angiotensin II receptor, type 1a
A05	Mm.309336	NM_009640	Angpt1	Angiopietin 1
A06	Mm.1620	NM_009673	Anxa5	Annexin A5
A07	Mm.305152	NM_009696	ApoE	Apolipoprotein E
A08	Mm.19904	NM_007527	Bax	Bcl2-associated X protein
A09	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A10	Mm.238213	NM_009743	Bcl2l1	Bcl2-like 1
A11	Mm.1051	NM_009807	Casp1	Caspase 1
A12	Mm.34405	NM_009810	Casp3	Caspase 3
B01	Mm.28278	NM_007616	Cav1	Caveolin 1, caveolae protein
B02	Mm.290320	NM_011333	Ccl2	Chemokine (C-C motif) ligand 2
B03	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
B04	Mm.21767	NM_009868	Cdh5	Cadherin 5
B05	Mm.336848	NM_009805	Cflar	CASP8 and FADD-like apoptosis regulator
B06	Mm.4352	NM_009929	Col18a1	Collagen, type XVIII, alpha 1
B07	Mm.218009	NM_009950	Cradd	CASP2 and RIPK1 domain containing adaptor with death domain
B08	Mm.103711	NM_009142	Cx3cl1	Chemokine (C-X3-C motif) ligand 1
B09	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
B10	Mm.4979	NM_009140	Cxcl2	Chemokine (C-X-C motif) ligand 2
B11	Mm.6246	NM_007551	Cxcr5	Chemokine (C-X-C motif) receptor 5
B12	Mm.14543	NM_010104	Edn1	Endothelin 1
C01	Mm.284855	NM_007902	Edn2	Endothelin 2
C02	Mm.283168	NM_010332	Ednra	Endothelin receptor type A
C03	Mm.225297	NM_007932	Eng	Endoglin
C04	Mm.24816	NM_010169	F2r	Coagulation factor II (thrombin) receptor
C05	Mm.1614	NM_007974	F2rl1	Coagulation factor II (thrombin) receptor-like 1
C06	Mm.273188	NM_010171	F3	Coagulation factor III
C07	Mm.1626	NM_007987	Fas	Fas (TNF receptor superfamily member 6)
C08	Mm.3355	NM_010177	Fasl	Fas ligand (TNF superfamily, member 6)
C09	Mm.241282	NM_010197	Fgf1	Fibroblast growth factor 1
C10	Mm.473689	NM_008006	Fgf2	Fibroblast growth factor 2
C11	Mm.389712	NM_010228	Flt1	FMS-like tyrosine kinase 1
C12	Mm.193099	NM_010233	Fn1	Fibronectin 1
D01	Mm.3879	NM_010431	Hif1a	Hypoxia inducible factor 1, alpha subunit
D02	Mm.435508	NM_010493	Icam1	Intercellular adhesion molecule 1
D03	Mm.35814	NM_008350	Il11	Interleukin 11
D04	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D05	Mm.983	NM_010556	Il3	Interleukin 3
D06	Mm.1019	NM_031168	Il6	Interleukin 6
D07	Mm.3825	NM_008371	Il7	Interleukin 7
D08	Mm.16234	NM_010577	Itga5	Integrin alpha 5 (fibronectin receptor alpha)
D09	Mm.227	NM_008402	Itgav	Integrin alpha V

Position	UniGene	GenBank	Symbol	Description
D10	Mm.263396	NM_010578	Itgb1	Integrin beta 1 (fibronectin receptor beta)
D11	Mm.87150	NM_016780	Itgb3	Integrin beta 3
D12	Mm.285	NM_010612	Kdr	Kinase insert domain protein receptor
E01	Mm.247073	NM_021099	Kit	Kit oncogene
E02	Mm.156952	NM_032006	Mmp1a	Matrix metalloproteinase 1a (interstitial collagenase)
E03	Mm.29564	NM_008610	Mmp2	Matrix metalloproteinase 2
E04	Mm.4406	NM_013599	Mmp9	Matrix metalloproteinase 9
E05	Mm.258415	NM_008713	Nos3	Nitric oxide synthase 3, endothelial cell
E06	Mm.2740	NM_008726	Nppb	Natriuretic peptide type B
E07	Mm.4627	NM_008727	Npr1	Natriuretic peptide receptor 1
E08	Mm.4807	NM_008756	Ocln	Occludin
E09	Mm.221403	NM_011058	Pdgfra	Platelet derived growth factor receptor, alpha polypeptide
E10	Mm.343951	NM_008816	Pecam1	Platelet/endothelial cell adhesion molecule 1
E11	Mm.332490	NM_019932	Pf4	Platelet factor 4
E12	Mm.4809	NM_008827	Pgf	Placental growth factor
F01	Mm.154660	NM_008872	Plat	Plasminogen activator, tissue
F02	Mm.4183	NM_008873	Plau	Plasminogen activator, urokinase
F03	Mm.971	NM_008877	Plg	Plasminogen
F04	Mm.3243	NM_011171	Procr	Protein C receptor, endothelial
F05	Mm.2339	NM_008968	Ptgis	Prostaglandin I2 (prostacyclin) synthase
F06	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F07	Mm.5245	NM_011345	Sele	Selectin, endothelial cell
F08	Mm.1461	NM_011346	Sell	Selectin, lymphocyte
F09	Mm.3337	NM_011347	Selp	Selectin, platelet
F10	Mm.332590	NM_009151	Selp1g	Selectin, platelet (p-selectin) ligand
F11	Mm.250422	NM_008871	Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, member 1
F12	Mm.276325	NM_011434	Sod1	Superoxide dismutase 1, soluble
G01	Mm.14313	NM_013690	Tek	Endothelial-specific receptor tyrosine kinase
G02	Mm.124316	NM_011576	Tfpi	Tissue factor pathway inhibitor
G03	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G04	Mm.24096	NM_009378	Thbd	Thrombomodulin
G05	Mm.4159	NM_011580	Thbs1	Thrombospondin 1
G06	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G07	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G08	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G09	Mm.287977	NM_138302	Tymp	Thymidine phosphorylase
G10	Mm.76649	NM_011693	Vcam1	Vascular cell adhesion molecule 1
G11	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G12	Mm.22339	NM_011708	Vwf	Von Willebrand factor 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, 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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