

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

Mouse Extracellular Matrix & Adhesion Molecules

Cat. no. 330231 PAMM-013ZA

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 Extracellular Matrix & Adhesion Molecules RT² Profiler PCR Array profiles the expression of 84 genes important for cell-cell and cell-matrix interactions. Cells attach to proteoglycans and glycoproteins (such as fibronectin, laminin, and collagen) in the extracellular matrix (ECM) substratum via adhesion molecules on their cell surface to define tissue shape, structure, and function. Making and breaking cellular contacts with other cells and the ECM play critical roles in normal processes such as cell growth, division, differentiation, and migration. Disease states (metastasis, rheumatoid arthritis, and cardiovascular and central nervous system disorders) and pathophysiological processes (wound healing and inflammation) also involve ECM remodeling and changes in the classes of cell adhesion molecule expressed on cell surfaces. This array contains ECM proteins including basement membrane constituents, collagens, and other genes defining ECM structure. Matrix and other metalloproteinases that remodel the ECM as well as their inhibitors are also included. This array also represents integrins, selectins, cell-adhesion molecule family members (ICAM, ECAM, NCAM, PECAM, and VCAM), and other genes important to cell adhesion and cytoskeleton bridging such as the catenins. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to cell adhesion and the ECM 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	Adams1	Adams2	Adams5	Adams8	Cd44	Cdh1	Cdh2	Cdh3	Cdh4	Cntn1	Col1a1	Col2a1
B	Col3a1	Col4a1	Col4a2	Col4a3	Col5a1	Col6a1	Ctgf	Ctnna1	Ctnna2	Ctnnb1	Ecm1	Emilin1
C	Entpd1	Fbln1	Fn1	Hapln1	Hc	Icam1	Itga2	Itga3	Itga4	Itga5	Itgae	Itgal
D	Itgam	Itgav	Itgax	Itgb1	Itgb2	Itgb3	Itgb4	Lama1	Lama2	Lama3	Lamb2	Lamb3
E	Lamc1	Mmp10	Mmp11	Mmp12	Mmp13	Mmp14	Mmp15	Mmp1a	Mmp2	Mmp3	Mmp7	Mmp8
F	Mmp9	Ncam1	Ncam2	Pecam1	Postn	Sele	Sell	Selp	Sgce	Sparc	Spock1	Spp1
G	Syl1	Tgfb1	Thbs1	Thbs2	Thbs3	Timp1	Timp2	Timp3	Tnc	Vcam1	Vcan	Vtn
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.1421	NM_009621	Adams1	A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 1
A02	Mm.339048	NM_175643	Adams2	A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 2
A03	Mm.112933	NM_011782	Adams5	A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2)
A04	Mm.100582	NM_013906	Adams8	A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 8
A05	Mm.423621	NM_009851	Cd44	CD44 antigen
A06	Mm.35605	NM_009864	Cdh1	Cadherin 1
A07	Mm.257437	NM_007664	Cdh2	Cadherin 2
A08	Mm.4658	NM_001037809	Cdh3	Cadherin 3
A09	Mm.184711	NM_009867	Cdh4	Cadherin 4
A10	Mm.470343	NM_007727	Cntn1	Contactin 1
A11	Mm.277735	NM_007742	Col1a1	Collagen, type I, alpha 1
A12	Mm.2423	NM_031163	Col2a1	Collagen, type II, alpha 1
B01	Mm.249555	NM_009930	Col3a1	Collagen, type III, alpha 1
B02	Mm.738	NM_009931	Col4a1	Collagen, type IV, alpha 1
B03	Mm.181021	NM_009932	Col4a2	Collagen, type IV, alpha 2
B04	Mm.389135	NM_007734	Col4a3	Collagen, type IV, alpha 3
B05	Mm.7281	NM_015734	Col5a1	Collagen, type V, alpha 1
B06	Mm.2509	NM_009933	Col6a1	Collagen, type VI, alpha 1
B07	Mm.390287	NM_010217	Ctgf	Connective tissue growth factor
B08	Mm.18962	NM_009818	Ctnna1	Catenin (cadherin associated protein), alpha 1
B09	Mm.34637	NM_009819	Ctnna2	Catenin (cadherin associated protein), alpha 2
B10	Mm.291928	NM_007614	Ctnnb1	Catenin (cadherin associated protein), beta 1
B11	Mm.3433	NM_007899	Ecm1	Extracellular matrix protein 1
B12	Mm.286375	NM_133918	Emilin1	Elastin microfibril interfacer 1
C01	Mm.2824	NM_009848	Entpd1	Ectonucleoside triphosphate diphosphohydrolase 1
C02	Mm.297992	NM_010180	Fbln1	Fibulin 1
C03	Mm.193099	NM_010233	Fn1	Fibronectin 1
C04	Mm.266790	NM_013500	Hapln1	Hyaluronan and proteoglycan link protein 1
C05	Mm.2168	NM_010406	Hc	Hemolytic complement
C06	Mm.435508	NM_010493	Icam1	Intercellular adhesion molecule 1
C07	Mm.5007	NM_008396	Itga2	Integrin alpha 2
C08	Mm.57035	NM_013565	Itga3	Integrin alpha 3
C09	Mm.31903	NM_010576	Itga4	Integrin alpha 4
C10	Mm.16234	NM_010577	Itga5	Integrin alpha 5 (fibronectin receptor alpha)
C11	Mm.96	NM_008399	Itgae	Integrin alpha E, epithelial-associated
C12	Mm.1618	NM_008400	Itgal	Integrin alpha L
D01	Mm.262106	NM_008401	Itgam	Integrin alpha M
D02	Mm.227	NM_008402	Itgav	Integrin alpha V
D03	Mm.22378	NM_021334	Itgax	Integrin alpha X
D04	Mm.263396	NM_010578	Itgb1	Integrin beta 1 (fibronectin receptor beta)
D05	Mm.1137	NM_008404	Itgb2	Integrin beta 2

Position	UniGene	GenBank	Symbol	Description
D06	Mm.87150	NM_016780	Itgb3	Integrin beta 3
D07	Mm.213873	NM_001005608	Itgb4	Integrin beta 4
D08	Mm.303386	NM_008480	Lama1	Laminin, alpha 1
D09	Mm.256087	NM_008481	Lama2	Laminin, alpha 2
D10	Mm.42012	NM_010680	Lama3	Laminin, alpha 3
D11	Mm.425599	NM_008483	Lamb2	Laminin, beta 2
D12	Mm.435441	NM_008484	Lamb3	Laminin, beta 3
E01	Mm.1249	NM_010683	Lamc1	Laminin, gamma 1
E02	Mm.14126	NM_019471	Mmp10	Matrix metalloproteinase 10
E03	Mm.4561	NM_008606	Mmp11	Matrix metalloproteinase 11
E04	Mm.2055	NM_008605	Mmp12	Matrix metalloproteinase 12
E05	Mm.5022	NM_008607	Mmp13	Matrix metalloproteinase 13
E06	Mm.280175	NM_008608	Mmp14	Matrix metalloproteinase 14 (membrane-inserted)
E07	Mm.217116	NM_008609	Mmp15	Matrix metalloproteinase 15
E08	Mm.156952	NM_032006	Mmp1a	Matrix metalloproteinase 1a (interstitial collagenase)
E09	Mm.29564	NM_008610	Mmp2	Matrix metalloproteinase 2
E10	Mm.4993	NM_010809	Mmp3	Matrix metalloproteinase 3
E11	Mm.4825	NM_010810	Mmp7	Matrix metalloproteinase 7
E12	Mm.16415	NM_008611	Mmp8	Matrix metalloproteinase 8
F01	Mm.4406	NM_013599	Mmp9	Matrix metalloproteinase 9
F02	Mm.4974	NM_010875	Ncam1	Neural cell adhesion molecule 1
F03	Mm.433941	NM_010954	Ncam2	Neural cell adhesion molecule 2
F04	Mm.343951	NM_008816	Pecam1	Platelet/endothelial cell adhesion molecule 1
F05	Mm.236067	NM_015784	Postn	Periostin, osteoblast specific factor
F06	Mm.5245	NM_011345	Sele	Selectin, endothelial cell
F07	Mm.1461	NM_011346	Sell	Selectin, lymphocyte
F08	Mm.3337	NM_011347	Selp	Selectin, platelet
F09	Mm.8739	NM_011360	Sgce	Sarcoglycan, epsilon
F10	Mm.291442	NM_009242	Sparc	Secreted acidic cysteine rich glycoprotein
F11	Mm.379020	NM_009262	Spock1	Sparc/osteonectin, cwcw and kazal-like domains proteoglycan 1
F12	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
G01	Mm.289702	NM_009306	Syt1	Synaptotagmin I
G02	Mm.14455	NM_009369	Tgfb1	Transforming growth factor, beta induced
G03	Mm.4159	NM_011580	Thbs1	Thrombospondin 1
G04	Mm.26688	NM_011581	Thbs2	Thrombospondin 2
G05	Mm.2114	NM_013691	Thbs3	Thrombospondin 3
G06	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G07	Mm.206505	NM_011594	Timp2	Tissue inhibitor of metalloproteinase 2
G08	Mm.4871	NM_011595	Timp3	Tissue inhibitor of metalloproteinase 3
G09	Mm.454219	NM_011607	Tnc	Tenascin C
G10	Mm.76649	NM_011693	Vcam1	Vascular cell adhesion molecule 1
G11	Mm.158700	NM_001081249	Vcan	Versican
G12	Mm.3667	NM_011707	Vtn	Vitronectin
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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