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

Mouse Wound Healing

Cat. no. 330231 PAMM-121ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² 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
RT² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT² Profiler PCR Array, Format H	Fluidigm® BioMark™

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Description

The Mouse Wound Healing RT² Profiler PCR Array profiles the expression of 84 key genes central to the wound healing response. Wound healing progresses via three overlapping phases: inflammation, granulation and tissue remodeling. After cutaneous injury, a blood clot forms, and inflammatory cells infiltrate the wound, secreting cytokines and growth factors to promote the inflammation phase. During the granulation phase, fibroblasts and other cells differentiate into myofibroblasts, which deposit extracellular matrix (ECM) proteins. Simultaneously, angiogenesis occurs, and keratinocytes proliferate and migrate to close the wound. In the final tissue remodeling phase, apoptosis eliminates myofibroblasts and extraneous blood vessels, and the ECM is remodeled to resemble the original tissue. Dysregulation of this last tissue remodeling phase leads to fibrosis. This array contains genes important for each of the three phases of wound healing, including ECM remodeling factors, inflammatory cytokines and chemokines, as well as growth factors and major signaling molecules. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in wound healing, tissue injury and repair 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	Acta2	Actc1	Angpt1	Ccl12	Ccl7	Cd40lg	Cdh1	Col14a1	Col1a1	Col1a2	Col3a1	Col4a1
B	Col4a3	Col5a1	Col5a2	Col5a3	Csf2	Csf3	Ctgf	Ctnnb1	Ctsg	Ctsk	Ctsl	Cxcl1
C	Cxcl11	Cxcl3	Cxcl5	Egf	Egfr	F13a1	F3	Fga	Fgf10	Fgf2	Fgf7	Hbegf
D	Hgf	Ifng	Igf1	Il10	Il1b	Il2	Il4	Il6	Il6st	Itga1	Itga2	Itga3
E	Itga4	Itga5	Itga6	Itgav	Itgb1	Itgb3	Itgb5	Itgb6	Mapk1	Mapk3	Mif	Mmp1a
F	Mmp2	Mmp7	Mmp9	Pdgfa	Plat	Plau	Plaur	Plg	Pten	Ptgs2	Rac1	Rhoa
G	Serpine1	Stat3	Tagln	Tgfa	Tgfb1	Tgfbr3	Timp1	Tnf	Vegfa	Vtn	Wisp1	Wnt5a
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.213025	NM_007392	Acta2	Actin, alpha 2, smooth muscle, aorta
A02	Mm.686	NM_009608	Actc1	Actin, alpha, cardiac muscle 1
A03	Mm.309336	NM_009640	Angpt1	Angiopoietin 1
A04	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
A05	Mm.341574	NM_013654	Ccl7	Chemokine (C-C motif) ligand 7
A06	Mm.4861	NM_011616	Cd40lg	CD40 ligand
A07	Mm.35605	NM_009864	Cdh1	Cadherin 1
A08	Mm.297859	NM_181277	Col14a1	Collagen, type XIV, alpha 1
A09	Mm.277735	NM_007742	Col1a1	Collagen, type I, alpha 1
A10	Mm.277792	NM_007743	Col1a2	Collagen, type I, alpha 2
A11	Mm.249555	NM_009930	Col3a1	Collagen, type III, alpha 1
A12	Mm.738	NM_009931	Col4a1	Collagen, type IV, alpha 1
B01	Mm.389135	NM_007734	Col4a3	Collagen, type IV, alpha 3
B02	Mm.7281	NM_015734	Col5a1	Collagen, type V, alpha 1
B03	Mm.10299	NM_007737	Col5a2	Collagen, type V, alpha 2
B04	Mm.334994	NM_016919	Col5a3	Collagen, type V, alpha 3
B05	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B06	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
B07	Mm.390287	NM_010217	Ctgf	Connective tissue growth factor
B08	Mm.291928	NM_007614	Ctnnb1	Catenin (cadherin associated protein), beta 1
B09	Mm.4858	NM_007800	Ctsg	Cathepsin G
B10	Mm.272085	NM_007802	Ctsk	Cathepsin K
B11	Mm.930	NM_009984	Ctsl	Cathepsin L
B12	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
C01	Mm.131723	NM_019494	Cxcl11	Chemokine (C-X-C motif) ligand 11
C02	Mm.244289	NM_203320	Cxcl3	Chemokine (C-X-C motif) ligand 3
C03	Mm.4660	NM_009141	Cxcl5	Chemokine (C-X-C motif) ligand 5
C04	Mm.252481	NM_010113	Egf	Epidermal growth factor
C05	Mm.8534	NM_007912	Egfr	Epidermal growth factor receptor
C06	Mm.235105	NM_028784	F13a1	Coagulation factor XIII, A1 subunit
C07	Mm.273188	NM_010171	F3	Coagulation factor III
C08	Mm.88793	NM_010196	Fga	Fibrinogen alpha chain
C09	Mm.317323	NM_008002	Fgf10	Fibroblast growth factor 10
C10	Mm.473689	NM_008006	Fgf2	Fibroblast growth factor 2
C11	Mm.330557	NM_008008	Fgf7	Fibroblast growth factor 7
C12	Mm.289681	NM_010415	Hbegf	Heparin-binding EGF-like growth factor
D01	Mm.267078	NM_010427	Hgf	Hepatocyte growth factor
D02	Mm.240327	NM_008337	Ifng	Interferon gamma
D03	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D04	Mm.874	NM_010548	Il10	Interleukin 10
D05	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D06	Mm.14190	NM_008366	Il2	Interleukin 2
D07	Mm.276360	NM_021283	Il4	Interleukin 4
D08	Mm.1019	NM_031168	Il6	Interleukin 6
D09	Mm.4364	NM_010560	Il6st	Interleukin 6 signal transducer

Position	UniGene	GenBank	Symbol	Description
D10	Mm.482186	NM_001033228	Itga1	Integrin alpha 1
D11	Mm.5007	NM_008396	Itga2	Integrin alpha 2
D12	Mm.57035	NM_013565	Itga3	Integrin alpha 3
E01	Mm.31903	NM_010576	Itga4	Integrin alpha 4
E02	Mm.16234	NM_010577	Itga5	Integrin alpha 5 (fibronectin receptor alpha)
E03	Mm.225096	NM_008397	Itga6	Integrin alpha 6
E04	Mm.227	NM_008402	Itgav	Integrin alpha V
E05	Mm.263396	NM_010578	Itgb1	Integrin beta 1 (fibronectin receptor beta)
E06	Mm.87150	NM_016780	Itgb3	Integrin beta 3
E07	Mm.6424	NM_010580	Itgb5	Integrin beta 5
E08	Mm.98193	NM_021359	Itgb6	Integrin beta 6
E09	Mm.196581	NM_011949	Mapk1	Mitogen-activated protein kinase 1
E10	Mm.8385	NM_011952	Mapk3	Mitogen-activated protein kinase 3
E11	Mm.2326	NM_010798	Mif	Macrophage migration inhibitory factor
E12	Mm.156952	NM_032006	Mmp1a	Matrix metallopeptidase 1a (interstitial collagenase)
F01	Mm.29564	NM_008610	Mmp2	Matrix metallopeptidase 2
F02	Mm.4825	NM_010810	Mmp7	Matrix metallopeptidase 7
F03	Mm.4406	NM_013599	Mmp9	Matrix metallopeptidase 9
F04	Mm.2675	NM_008808	Pdgfa	Platelet derived growth factor, alpha
F05	Mm.154660	NM_008872	Plat	Plasminogen activator, tissue
F06	Mm.4183	NM_008873	Plau	Plasminogen activator, urokinase
F07	Mm.1359	NM_011113	Plaur	Plasminogen activator, urokinase receptor
F08	Mm.971	NM_008877	Plg	Plasminogen
F09	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
F10	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F11	Mm.292510	NM_009007	Rac1	RAS-related C3 botulinum substrate 1
F12	Mm.757	NM_016802	Rhoa	Ras homolog gene family, member A
G01	Mm.250422	NM_008871	Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, member 1
G02	Mm.249934	NM_011486	Stat3	Signal transducer and activator of transcription 3
G03	Mm.283283	NM_011526	Tagln	Transgelin
G04	Mm.137222	NM_031199	Tgfa	Transforming growth factor alpha
G05	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G06	Mm.200775	NM_011578	Tgfbr3	Transforming growth factor, beta receptor III
G07	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G08	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G09	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G10	Mm.3667	NM_011707	Vtn	Vitronectin
G11	Mm.10222	NM_018865	Wisp1	WNT1 inducible signaling pathway protein 1
G12	Mm.287544	NM_009524	Wnt5a	Wingless-related MMTV integration site 5A
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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
RT² 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
RT² 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.

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 or can be requested from QIAGEN Technical Services or your local distributor.

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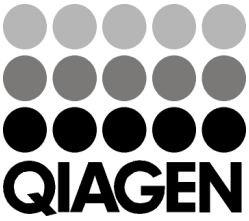

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