

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

Mouse Hematopoiesis

Cat. no. 330231 PAMM-054ZA

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 Hematopoiesis RT² Profiler PCR Array profiles the expression of 84 genes related to the development of blood-cell lineages from HSCs through progenitor stem cells. Blood cell lineage-specific molecular markers are represented on this array. The cytokines, signaling molecules, and other regulators that are important in stem cell commitment and differentiation are included as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to hematopoietic stem cells and hematopoiesis 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	Ahsp	Angpt1	Apc	Ash2l	Blnk	Cbfb	Ccr1	Cd14	Cd164	Cd1d1	Cd2	Cd27
B	Cd34	Cd3d	Cd3g	Cd4	Cd44	Cd80	Cd86	Cd8a	Cebpe	Cebpg	Csf1	Csf2
C	Dll1	Ets1	Etv6	Flt3l	Fut10	Fzd1	Gata1	Gata2	Hdac4	Hdac5	Hdac7	Hdac9
D	Il10	Il11	Il12b	Il1a	Il2	Il20	Il25	Il31ra	Il6st	Inha	Inhba	Jag1
E	Jag2	Kdr	Kit	Kitl	Lef1	Lmo2	Lrmp	Mal	Map4k1	Mmp9	Ncoa6	Nos2
F	Notch1	Notch2	Notch4	Pax5	Pecam1	Pf4	Ptprc	Rbpj	Runtx1	Sfkn1	Socs5	Spp1
G	Stat1	Stat3	Stim2	Tal1	Tek	Tlr3	Tlr4	Tnfrsf11	Trim10	Vav1	Vegfa	Wnt3a
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.423023	NM_133245	Ahsp	Alpha hemoglobin stabilizing protein
A02	Mm.309336	NM_009640	Angpt1	Angiotensinogen 1
A03	Mm.384171	NM_007462	Apc	Adenomatous polyposis coli
A04	Mm.27706	NM_011791	Ash2l	Ash2 (absent, small, or homeotic)-like (Drosophila)
A05	Mm.9749	NM_008528	Blnk	B-cell linker
A06	Mm.2018	NM_022309	Cbfb	Core binding factor beta
A07	Mm.274927	NM_009912	Ccr1	Chemokine (C-C motif) receptor 1
A08	Mm.3460	NM_009841	Cd14	CD14 antigen
A09	Mm.269815	NM_016898	Cd164	CD164 antigen
A10	Mm.1894	NM_007639	Cd1d1	CD1d1 antigen
A11	Mm.22842	NM_013486	Cd2	CD2 antigen
A12	Mm.367714	NM_001033126	Cd27	CD27 antigen
B01	Mm.29798	NM_133654	Cd34	CD34 antigen
B02	Mm.4527	NM_013487	Cd3d	CD3 antigen, delta polypeptide
B03	Mm.335106	NM_009850	Cd3g	CD3 antigen, gamma polypeptide
B04	Mm.2209	NM_013488	Cd4	CD4 antigen
B05	Mm.423621	NM_009851	Cd44	CD44 antigen
B06	Mm.89474	NM_009855	Cd80	CD80 antigen
B07	Mm.1452	NM_019388	Cd86	CD86 antigen
B08	Mm.1858	NM_001081110	Cd8a	CD8 antigen, alpha chain
B09	Mm.236223	NM_207131	Cebpe	CCAAT/enhancer binding protein (C/EBP), epsilon
B10	Mm.273090	NM_009884	Cebpg	CCAAT/enhancer binding protein (C/EBP), gamma
B11	Mm.795	NM_007778	Csf1	Colony stimulating factor 1 (macrophage)
B12	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
C01	Mm.4875	NM_007865	Dll1	Delta-like 1 (Drosophila)
C02	Mm.292415	NM_011808	Ets1	E26 avian leukemia oncogene 1, 5' domain
C03	Mm.269995	NM_007961	Etv6	Ets variant gene 6 (TEL oncogene)
C04	Mm.1658	NM_013520	Flt3l	FMS-like tyrosine kinase 3 ligand
C05	Mm.334477	NM_134161	Fut10	Fucosyltransferase 10
C06	Mm.246003	NM_021457	Fzd1	Frizzled homolog 1 (Drosophila)
C07	Mm.335973	NM_008089	Gata1	GATA binding protein 1
C08	Mm.272747	NM_008090	Gata2	GATA binding protein 2
C09	Mm.318567	NM_207225	Hdac4	Histone deacetylase 4
C10	Mm.22665	NM_010412	Hdac5	Histone deacetylase 5
C11	Mm.384027	NM_019572	Hdac7	Histone deacetylase 7
C12	Mm.310551	NM_024124	Hdac9	Histone deacetylase 9
D01	Mm.874	NM_010548	Il10	Interleukin 10
D02	Mm.35814	NM_008350	Il11	Interleukin 11
D03	Mm.239707	NM_008352	Il12b	Interleukin 12B
D04	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
D05	Mm.14190	NM_008366	Il2	Interleukin 2
D06	Mm.103794	NM_021380	Il20	Interleukin 20
D07	Mm.90154	NM_080729	Il25	Interleukin 25
D08	Mm.380801	NM_139299	Il31ra	Interleukin 31 receptor A
D09	Mm.4364	NM_010560	Il6st	Interleukin 6 signal transducer

Position	UniGene	GenBank	Symbol	Description
D10	Mm.11100	NM_010564	Inha	Inhibin alpha
D11	Mm.8042	NM_008380	Inhba	Inhibin beta-A
D12	Mm.22398	NM_013822	Jag1	Jagged 1
E01	Mm.186146	NM_010588	Jag2	Jagged 2
E02	Mm.285	NM_010612	Kdr	Kinase insert domain protein receptor
E03	Mm.247073	NM_021099	Kit	Kit oncogene
E04	Mm.45124	NM_013598	Kitl	Kit ligand
E05	Mm.255219	NM_010703	Lef1	Lymphoid enhancer binding factor 1
E06	Mm.29266	NM_008505	Lmo2	LIM domain only 2
E07	Mm.843	NM_008511	Lrmp	Lymphoid-restricted membrane protein
E08	Mm.39040	NM_010762	Mal	Myelin and lymphocyte protein, T-cell differentiation protein
E09	Mm.148278	NM_008279	Map4k1	Mitogen-activated protein kinase kinase kinase 1
E10	Mm.4406	NM_013599	Mmp9	Matrix metalloproteinase 9
E11	Mm.27592	NM_019825	Ncoa6	Nuclear receptor coactivator 6
E12	Mm.2893	NM_010927	Nos2	Nitric oxide synthase 2, inducible
F01	Mm.290610	NM_008714	Notch1	Notch gene homolog 1 (Drosophila)
F02	Mm.254017	NM_010928	Notch2	Notch gene homolog 2 (Drosophila)
F03	Mm.173813	NM_010929	Notch4	Notch gene homolog 4 (Drosophila)
F04	Mm.439659	NM_008782	Pax5	Paired box gene 5
F05	Mm.343951	NM_008816	Pecam1	Platelet/endothelial cell adhesion molecule 1
F06	Mm.332490	NM_019932	Pf4	Platelet factor 4
F07	Mm.391573	NM_011210	Ptpcr	Protein tyrosine phosphatase, receptor type, C
F08	Mm.209292	NM_009035	Rbpj	Recombination signal binding protein for immunoglobulin kappa J region
F09	Mm.4081	NM_009821	Runx1	Runt related transcription factor 1
F10	Mm.134191	NM_027324	Sfxn1	Sideroflexin 1
F11	Mm.126885	NM_019654	Socs5	Suppressor of cytokine signaling 5
F12	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
G01	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G02	Mm.249934	NM_011486	Stat3	Signal transducer and activator of transcription 3
G03	Mm.265985	NM_001081103	Stim2	Stromal interaction molecule 2
G04	Mm.439685	NM_011527	Tal1	T-cell acute lymphocytic leukemia 1
G05	Mm.14313	NM_013690	Tek	Endothelial-specific receptor tyrosine kinase
G06	Mm.33874	NM_126166	Tlr3	Toll-like receptor 3
G07	Mm.38049	NM_021297	Tlr4	Toll-like receptor 4
G08	Mm.249221	NM_011613	Tnfsf11	Tumor necrosis factor (ligand) superfamily, member 11
G09	Mm.299155	NM_011280	Trim10	Tripartite motif-containing 10
G10	Mm.248172	NM_011691	Vav1	Vav 1 oncogene
G11	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G12	Mm.1367	NM_009522	Wnt3a	Wingless-related MMTV integration site 3A
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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