

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

Rat Hematopoiesis

Cat. no. 330231 PARN-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 Rat 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	Angpt1	Apc	Ash2l	Bcl11a	Blnk	Cbfb	Ccr1	Cd14	Cd164	Cd1d1	Cd2	Cd27
B	Cd34	Cd3d	Cd3g	Cd4	Cd44	Cd80	Cd86	Cd8a	Cebpe	Cebpg	Csf1	Csf2
C	Dll1	Egr1	Eraf	Ets1	Etv6	Fzd1	Gata1	Gata2	Hdac4	Hdac5	Hdac7	Hdac9
D	Hoxb4	Il10	Il11	Il12b	Il1a	Il2	Il20	Il25	Il6st	Inha	Inhba	Irf4
E	Irf8	Jag1	Jag2	Kdr	Kit	Klf6	Klf6	Lef1	Lmo2	Mal	Map4k1	Mmp9
F	Ncoa6	Nos2	Notch1	Notch2	Notch4	Pecam1	Pf4	Piprc	Rhoh	Runx1	Sfn1	Socs5
G	Spp1	Stat1	Stat3	Stim2	Tal1	Tek	Tlr3	Tlr4	Tnfrsf11	Vav1	Vegfa	Wnt3a
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.161953	NM_053546	Angpt1	Angiopoietin 1
A02	Rn.88057	NM_012499	Apc	Adenomatous polyposis coli
A03	Rn.219095	NM_001106089	Ash2l	Ash2 (absent, small, or homeotic)-like (Drosophila)
A04	Rn.16729	XM_223693	Bcl11a	B-cell CLL/lymphoma 11A (zinc finger protein)
A05	Rn.32684	NM_001025767	Blnk	B-cell linker
A06	Rn.7308	NM_001013191	Cbfb	Core-binding factor, beta subunit
A07	Rn.34673	NM_020542	Ccr1	Chemokine (C-C motif) receptor 1
A08	Rn.42942	NM_021744	Cd14	CD14 molecule
A09	Rn.3733	NM_031812	Cd164	CD164 molecule, sialomucin
A10	Rn.11120	NM_017079	Cd1d1	CD1d1 molecule
A11	Rn.10328	NM_012830	Cd2	Cd2 molecule
A12	Rn.134200	NM_001024335	Cd27	CD27 molecule
B01	Rn.219720	NM_001107202	Cd34	CD34 molecule
B02	Rn.10329	NM_013169	Cd3d	CD3 molecule, delta
B03	Rn.202653	NM_001077646	Cd3g	CD3 molecule, gamma
B04	Rn.10748	NM_012705	Cd4	Cd4 molecule
B05	Rn.1120	NM_012924	Cd44	Cd44 molecule
B06	Rn.10138	NM_012926	Cd80	Cd80 molecule
B07	Rn.6734	NM_020081	Cd86	CD86 molecule
B08	Rn.10306	NM_031538	Cd8a	CD8a molecule
B09	Rn.44462	NM_017095	Cebpe	CCAAT/enhancer binding protein (C/EBP), epsilon
B10	Rn.10332	NM_012831	Cebpg	CCAAT/enhancer binding protein (C/EBP), gamma
B11	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
B12	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
C01	Rn.10628	NM_032063	Dll1	Delta-like 1 (Drosophila)
C02	Rn.9096	NM_012551	Egr1	Early growth response 1
C03	Rn.136569	NM_001106299	Eraf	Erythroid associated factor
C04	Rn.88756	NM_012555	Ets1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
C05	Rn.147424	NM_001037353	Etv6	Ets variant 6
C06	Rn.6575	NM_021266	Fzd1	Frizzled homolog 1 (Drosophila)
C07	Rn.10024	NM_012764	Gata1	GATA binding protein 1
C08	Rn.34322	NM_033442	Gata2	GATA binding protein 2
C09	Rn.23483	XM_343629	Hdac4	Histone deacetylase 4
C10	Rn.79863	NM_053450	Hdac5	Histone deacetylase 5
C11	Rn.203327	XM_345868	Hdac7	Histone deacetylase 7
C12	Rn.198197	XM_234063	Hdac9	Histone deacetylase 9
D01	Rn.209614	NM_001100787	Hoxb4	Homeo box B4
D02	Rn.9868	NM_012854	Il10	Interleukin 10
D03	Rn.198483	NM_133519	Il11	Interleukin 11
D04	Rn.48686	NM_022611	Il12b	Interleukin 12b
D05	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
D06	Rn.9871	NM_053836	Il2	Interleukin 2
D07	Rn.222008	NM_001143881	Il20	Interleukin 20
D08	Rn.141273	XM_577423	Il25	Interleukin 25
D09	Rn.12138	NM_001008725	Il6st	Interleukin 6 signal transducer

Position	UniGene	GenBank	Symbol	Description
D10	Rn.8831	NM_012590	Inha	Inhibin alpha
D11	Rn.9874	NM_017128	Inhba	Inhibin beta-A
D12	Rn.82114	NM_001106108	Irf4	Interferon regulatory factor 4
E01	Rn.3765	NM_001008722	Irf8	Interferon regulatory factor 8
E02	Rn.88804	NM_019147	Jag1	Jagged 1
E03	Rn.22459	XM_343119	Jag2	Jagged 2
E04	Rn.88869	NM_013062	Kdr	Kinase insert domain receptor
E05	Rn.54004	NM_022264	Kit	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
E06	Rn.44216	NM_021843	Kitlg	KIT ligand
E07	Rn.163355	NM_031642	Klf6	Kruppel-like factor 6
E08	Rn.21926	NM_130429	Lef1	Lymphoid enhancer binding factor 1
E09	Rn.155591	NM_001037358	Lmo2	LIM domain only 2
E10	Rn.10174	NM_012798	Mal	Mal, T-cell differentiation protein
E11	Rn.137063	NM_001106243	Map4k1	Mitogen activated protein kinase kinase kinase kinase 1
E12	Rn.10209	NM_031055	Mmp9	Matrix metalloproteinase 9
F01	Rn.9077	XM_342552	Ncoa6	Nuclear receptor coactivator 6
F02	Rn.10400	NM_012611	Nos2	Nitric oxide synthase 2, inducible
F03	Rn.25046	NM_001105721	Notch1	Notch homolog 1, translocation-associated (Drosophila)
F04	Rn.65930	NM_024358	Notch2	Notch homolog 2 (Drosophila)
F05	Rn.12967	NM_001002827	Notch4	Notch homolog 4 (Drosophila)
F06	Rn.1878	NM_031591	Pecam1	Platelet/endothelial cell adhesion molecule 1
F07	Rn.6800	NM_001007729	Pf4	Platelet factor 4
F08	Rn.90166	NM_001109887	Ptpnc	Protein tyrosine phosphatase, receptor type, C
F09	Rn.20618	NM_001013430	Rhoh	Ras homolog gene family, member H
F10	Rn.11201	NM_017325	Runx1	Runt-related transcription factor 1
F11	Rn.115752	NM_001012213	Sfn1	Sideroflexin 1
F12	Rn.47568	NM_001109274	Socs5	Suppressor of cytokine signaling 5
G01	Rn.8871	NM_012881	Spp1	Secreted phosphoprotein 1
G02	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
G03	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G04	Rn.162277	NM_001105750	Stim2	Stromal interaction molecule 2
G05	Rn.9434	NM_001107958	Tal1	T-cell acute lymphocytic leukemia 1
G06	Rn.9159	NM_001105737	Tek	TEK tyrosine kinase, endothelial
G07	Rn.15273	NM_198791	Tlr3	Toll-like receptor 3
G08	Rn.14534	NM_019178	Tlr4	Toll-like receptor 4
G09	Rn.64517	NM_057149	Tnfrsf11	Tumor necrosis factor (ligand) superfamily, member 11
G10	Rn.48861	NM_012759	Vav1	Vav 1 guanine nucleotide exchange factor
G11	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
G12	Rn.218621	XM_220546	Wnt3a	Wingless-type MMTV integration site family, member 3A
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

China ■ 8621-3865-3865

Denmark ■ 80-885945

Finland ■ 0800-914416

France ■ 01-60-920-930

Germany ■ 02103-29-12000

Hong Kong ■ 800 933 965

Ireland ■ 1800 555 049

Italy ■ 800-787980

Japan ■ 03-6890-7300

Korea (South) ■ 080-000-7145

Luxembourg ■ 8002 2076

Mexico ■ 01-800-7742-436

The Netherlands ■ 0800 0229592

Norway ■ 800-18859

Singapore ■ 1800-742-4368

Spain ■ 91-630-7050

Sweden ■ 020-790282

Switzerland ■ 055-254-22-11

UK ■ 01293-422-911

USA ■ 800-426-8157

Australia ■ 1-800-243-800

Austria ■ 0800/281010

Belgium ■ 0800-79612

Brazil ■ 0800-557779



Sample & Assay Technologies