

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

Rat Lymphoma

Cat. no. 330231 PARN-139ZA

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 Lymphoma RT² Profiler PCR Array profiles the expression of 84 key genes commonly involved in lymphoma development, classification, prognosis, and therapeutic response. Lymphoma is a cancer of lymphatic cells in the immune system. The major clinical and pathological subtypes of adulthood lymphoma include follicular lymphoma and diffuse large B-cell lymphoma (DLBCL). Lymphoma affects molecular and biological pathways responsible for cell adhesion, cell cycle, immune and inflammatory responses, PI-3-Kinase/AKT signaling, and T cell differentiation. This array represents many genes in these pathways as well as a number of common lymphoma therapeutic targets derived from the same pathways. The array also includes dysregulated genes detected routinely in molecular analysis of lymphoma samples and in high-throughput microarray profiling studies, especially those associated with lymphoma survival. Genes known to have differentially methylated promoters in lymphoma are also represented. The profiling results from this array may lead to a better understanding of the molecular mechanisms behind lymphoma. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in lymphoma initiation and progression 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	Aff1	Alk	Asb13	Atm	Bcl2	Bcl6	Birc5	Blk	C1qa	C4b	Cadm1	Cbp
B	Ccnd1	Ccr1	Cd2	Cd22	Cd34	Cd3d	Cd4	Cd40	Cd40lg	Cd47	Cd5	Cd79a
C	Cd80	Cd8a	Cdh1	Cdh13	Cdkn1c	Cdkn2b	Cdkn2c	Csf3	Cxcr4	Dapk1	Dlc1	Dntf
D	F8	Fcer2	Fcgr1a	Fhit	Fli3	Gstp1	Hic1	Hrk	Hsp90aa1	Ifng	Ii2	Ii6
E	Itpkb	Lmo2	Lrmp	Lrp1b	Mcl1	Mki67	Mlh1	Mme	Msd4a1	Mtor	Mybl1	Myc
F	Myod1	Ncam1	Nfkb1	Notch1	Nr0b2	Parp1	Pdlim7	Plk2	Ptprc	Rassf1	Rbp1	Slc19a1
G	Src	Stat4	Syk	Tgfb1	Timp2	Timp3	Tlr5	Tnf	Tnfrsf1b	Tp53	Ttc9	Vgll4
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.214148	NM_001107206	Aff1	AF4/FMR2 family, member 1
A02	Rn.202143	NM_001169101	Alk	Anaplastic lymphoma kinase
A03	Rn.69263	NM_001108420	Asb13	Ankyrin repeat and SOCS box-containing 13
A04	Rn.214048	NM_001106821	Atm	Ataxia telangiectasia mutated homolog (human)
A05	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A06	Rn.20571	NM_001107084	Bcl6	B-cell CLL/lymphoma 6
A07	Rn.54471	NM_022274	Birc5	Baculoviral IAP repeat-containing 5
A08	Rn.26996	NM_001007798	Blk	Bruton agammaglobulinemia tyrosine kinase
A09	Rn.105647	NM_001008515	C1qa	Complement component 1, q subcomponent, A chain
A10	Rn.81052	NM_031504	C4b	Complement component 4B (Chido blood group)
A11	Rn.19928	NM_001012201	Cadm1	Cell adhesion molecule 1
A12	Rn.127786	NM_022253	Cbp	Csk binding protein
B01	Rn.22279	NM_171992	Ccnd1	Cyclin D1
B02	Rn.34673	NM_020542	Ccr1	Chemokine (C-C motif) receptor 1
B03	Rn.10328	NM_012830	Cd2	Cd2 molecule
B04	Rn.25921	NM_001107503	Cd22	CD22 molecule
B05	Rn.219720	NM_001107202	Cd34	CD34 molecule
B06	Rn.10329	NM_013169	Cd3d	CD3 molecule, delta
B07	Rn.10748	NM_012705	Cd4	Cd4 molecule
B08	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
B09	Rn.44218	NM_053353	Cd40lg	CD40 ligand
B10	Rn.7409	NM_019195	Cd47	Cd47 molecule
B11	Rn.11337	NM_019295	Cd5	Cd5 molecule
B12	Rn.178258	XM_001060872	Cd79a	Cd79a molecule, immunoglobulin-associated alpha
C01	Rn.10138	NM_012926	Cd80	Cd80 molecule
C02	Rn.10306	NM_031538	Cd8a	CD8a molecule
C03	Rn.1303	NM_031334	Cdh1	Cadherin 1
C04	Rn.23806	NM_138889	Cdh13	Cadherin 13
C05	Rn.162507	NM_182735	Cdkn1c	Cyclin-dependent kinase inhibitor 1C
C06	Rn.105626	NM_130812	Cdkn2b	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)
C07	Rn.63865	NM_131902	Cdkn2c	Cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)
C08	Rn.53973	NM_017104	Csf3	Colony stimulating factor 3 (granulocyte)
C09	Rn.44431	NM_022205	Cxcr4	Chemokine (C-X-C motif) receptor 4
C10	Rn.23108	NM_001107335	Dapk1	Death associated protein kinase 1
C11	Rn.7255	NM_001127446	Dlc1	Deleted in liver cancer 1
C12	Rn.143741	NM_001012461	Dntf	Deoxynucleotidyltransferase, terminal
D01	Rn.95452	NM_183331	F8	Coagulation factor VIII, procoagulant component
D02	Rn.10326	NM_133550	Fcer2	Fc fragment of IgE, low affinity II, receptor for (CD23)
D03	Rn.16643	NM_001100836	Fcgr1a	Fc fragment of IgG, high affinity Ia, receptor (CD64)
D04	Rn.45598	NM_021774	Fhit	Fragile histidine triad gene
D05	Rn.6774	NM_001100822	Fli3	Fms-related tyrosine kinase 3
D06	Rn.87063	NM_012577	Gstp1	Glutathione S-transferase pi 1
D07	Rn.11570	NM_001107021	Hic1	Hypermethylated in cancer 1
D08	Rn.89639	NM_057130	Hrk	Harakiri, BCL2 interacting protein (contains only BH3 domain)
D09	Rn.119867	NM_175761	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1

Position	UniGene	GenBank	Symbol	Description
D10	Rn.10795	NM_138880	Iifng	Interferon gamma
D11	Rn.9871	NM_053836	Il2	Interleukin 2
D12	Rn.9873	NM_012589	Il6	Interleukin 6
E01	Rn.22498	NM_019312	Itpkb	Inositol 1,4,5-trisphosphate 3-kinase B
E02	Rn.155591	NM_001037358	Lmo2	LIM domain only 2
E03	Rn.154961	XM_001074768	Lrmp	Lymphoid-restricted membrane protein
E04	Rn.218549	NM_001107843	Lrp1b	Low density lipoprotein-related protein 1B (deleted in tumors)
E05	Rn.129914	NM_021846	Mcl1	Myeloid cell leukemia sequence 1
E06	Rn.73551	XM_225460	Mki67	Antigen identified by monoclonal antibody Ki-67
E07	Rn.20391	NM_031053	Mlh1	MutL homolog 1 (E. coli)
E08	Rn.33598	NM_012608	Mme	Membrane metallo-endopeptidase
E09	Rn.16385	NM_001107578	Ms4a1	Membrane-spanning 4-domains, subfamily A, member 1
E10	Rn.11008	NM_019906	Mtor	Mechanistic target of rapamycin (serine/threonine kinase)
E11	Rn.218701	NM_001106632	Mybl1	Myeloblastosis oncogene-like 1
E12	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
F01	Rn.9493	NM_176079	Myod1	Myogenic differentiation 1
F02	Rn.11283	NM_031521	Ncam1	Neural cell adhesion molecule 1
F03	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F04	Rn.25046	NM_001105721	Notch1	Notch homolog 1, translocation-associated (Drosophila)
F05	Rn.10712	NM_057133	NrOb2	Nuclear receptor subfamily 0, group B, member 2
F06	Rn.11327	NM_013063	Parp1	Poly (ADP-ribose) polymerase 1
F07	Rn.7274	NM_173125	Pdlim7	PDZ and LIM domain 7
F08	Rn.2809	NM_013081	Ptk2	PTK2 protein tyrosine kinase 2
F09	Rn.90166	NM_001109887	Ptpcr	Protein tyrosine phosphatase, receptor type, C
F10	Rn.83042	NM_001007754	Rassf1	Ras association (RalGDS/AF-6) domain family member 1
F11	Rn.902	NM_012733	Rbp1	Retinol binding protein 1, cellular
F12	Rn.9042	NM_017299	Slc19a1	Solute carrier family 19 (folate transporter), member 1
G01	Rn.112600	NM_031977	Src	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
G02	Rn.137580	NM_001012226	Stat4	Signal transducer and activator of transcription 4
G03	Rn.87407	NM_012758	Syk	Spleen tyrosine kinase
G04	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
G05	Rn.10161	NM_021989	Timp2	TIMP metalloproteinase inhibitor 2
G06	Rn.119634	NM_012886	Timp3	TIMP metalloproteinase inhibitor 3
G07	Rn.198962	NM_001145828	Tlr5	Toll-like receptor 5
G08	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G09	Rn.83633	NM_130426	Tnfrsf1b	Tumor necrosis factor receptor superfamily, member 1b
G10	Rn.54443	NM_030989	Tp53	Tumor protein p53
G11	Rn.8149	NM_001134731	Ttc9	Tetratricopeptide repeat domain 9
G12	Rn.23131	NM_001015004	Vgll4	Vestigial like 4 (Drosophila)
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

Ireland ■ 1800 555 049

Norway ■ 800-18859

China ■ 8621-3865-3865

Italy ■ 800-787980

Singapore ■ 1800-742-4368

Denmark ■ 80-885945

Japan ■ 03-6890-7300

Spain ■ 91-630-7050

Australia ■ 1-800-243-800

Finland ■ 0800-914416

Korea (South) ■ 080-000-7145

Sweden ■ 020-790282

Austria ■ 0800/281010

France ■ 01-60-920-930

Luxembourg ■ 8002 2076

Switzerland ■ 055-254-22-11

Belgium ■ 0800-79612

Germany ■ 02103-29-12000

Mexico ■ 01-800-7742-436

UK ■ 01293-422-911

Brazil ■ 0800-557779

Hong Kong ■ 800 933 965

The Netherlands ■ 0800 0229592

USA ■ 800-426-8157



Sample & Assay Technologies