RT² Profiler PCR Array (Rotor-Gene® Format)

Rat Lymphoma

Cat. no. 330231 PARN-139ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

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*.

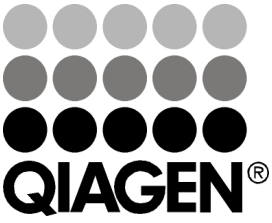
Shipping and storage

RT² Profiler PCR Arrays in the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

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

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc™ (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

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	Btk	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	Dntt	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	Flt3	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
D10	Rn.10795	NM_138880	Ifng	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

Position	UniGene	GenBank	Symbol	Description
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	Nr0b2	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	Ptprc	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 metallopeptidase inhibitor 2
G06	Rn.119634	NM_012886	Timp3	TIMP metallopeptidase 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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² SYBR Green ROX™ FAST Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers	330620

* 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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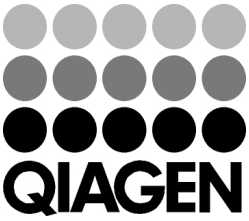

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