

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

Rat Cell Surface Markers

Cat. no. 330231 PARN-055ZA

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 Cell Surface Markers RT² Profiler PCR Array profiles the expression of 84 genes relevant to research at the cell surface marker level. These markers have been used in studies including: 1) determination of the extent of leukocyte infiltration among cancer tissues; 2) characterization of cell populations isolated from patients with chronic inflammatory diseases such as atherosclerosis, asthma, inflammatory bowel disease, and arthritis; 3) determination of T- and B-cell lineage and clonality; 4) characterization of leukocyte populations for use in the prognosis of disease stage and progression; and 5) analysis of the composition of immune infiltrates and their association with organ rejection. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to cell surface markers 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	Alcam	C5ar1	Cd163	Cd19	Cd1d1	Cd2	Cd200r1	Cd22	Cd24	Cd244	Cd247	Cd28
B	Cd34	Cd36	Cd37	Cd38	Cd3d	Cd3e	Cd3g	Cd4	Cd40	Cd40lg	Cd44	Cd48
C	Cd5	Cd6	Cd63	Cd69	Cd7	Cd70	Cd72	Cd74	Cd79a	Cd79b	Cd80	Cd83
D	Cd86	Cd8a	Cd8b	Cd96	Chst10	Col1a1	Col1a2	Cr2	Csf1r	Ctla4	Dpp4	Eng
E	Epcam	Fas	Fcer1a	Fcer2	Fcgr1a	Icam2	Il12rb1	Il1r2	Il2ra	Ilgα1	Ilgα2	Ilgα3
F	Klrc1	Klrd1	Krt18	Krt5	Krt8	Ms4a1	Myh10	Myh9	Myocd	Ncam1	Nas3	Nt5e
G	Pecam1	Reln	RT1-Da	S100a8	Selp	Sl6gal1	Tek	Tnfrsf4	Tnfrsf8	Tpsab1	Vcam1	Vwf
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.5789	NM_031753	Alcam	Activated leukocyte cell adhesion molecule
A02	Rn.10680	NM_053619	C5ar1	Complement component 5a receptor 1
A03	Rn.221900	NM_001107887	Cd163	CD163 molecule
A04	Rn.105569	NM_001013237	Cd19	CD19 molecule
A05	Rn.11120	NM_017079	Cd1d1	CD1d1 molecule
A06	Rn.10328	NM_012830	Cd2	Cd2 molecule
A07	Rn.124439	NM_023953	Cd200r1	CD200 receptor 1
A08	Rn.25921	NM_001107503	Cd22	CD22 molecule
A09	Rn.6007	NM_012752	Cd24	CD24 molecule
A10	Rn.53994	NM_022259	Cd244	CD244 molecule, natural killer cell receptor 2B4
A11	Rn.9997	NM_170789	Cd247	CD247 molecule
A12	Rn.10327	NM_013121	Cd28	CD28 molecule
B01	Rn.219720	NM_001107202	Cd34	CD34 molecule
B02	Rn.102418	NM_031561	Cd36	CD36 molecule (thrombospondin receptor)
B03	Rn.2357	NM_017124	Cd37	CD37 molecule
B04	Rn.11414	NM_013127	Cd38	CD38 molecule
B05	Rn.10329	NM_013169	Cd3d	CD3 molecule, delta
B06	Rn.96221	NM_001108140	Cd3e	CD3 molecule, epsilon
B07	Rn.202653	NM_001077646	Cd3g	CD3 molecule, gamma
B08	Rn.10748	NM_012705	Cd4	Cd4 molecule
B09	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
B10	Rn.44218	NM_053353	Cd40lg	CD40 ligand
B11	Rn.1120	NM_012924	Cd44	Cd44 molecule
B12	Rn.3705	NM_139103	Cd48	Cd48 molecule
C01	Rn.11337	NM_019295	Cd5	Cd5 molecule
C02	Rn.57361	NM_175577	Cd6	Cd6 molecule
C03	Rn.11068	NM_017125	Cd63	Cd63 molecule
C04	Rn.23779	NM_134327	Cd69	Cd69 molecule
C05	Rn.8175	NM_001107074	Cd7	Cd7 molecule
C06	Rn.103013	NM_001106878	Cd70	Cd70 molecule
C07	Rn.162392	NM_001015016	Cd72	Cd72 molecule
C08	Rn.33804	NM_013069	Cd74	CD74 molecule, major histocompatibility complex, class II invariant chain
C09	Rn.178258	XM_001060872	Cd79a	CD79a molecule, immunoglobulin-associated alpha
C10	Rn.62607	NM_133533	Cd79b	CD79b molecule, immunoglobulin-associated beta
C11	Rn.10138	NM_012926	Cd80	Cd80 molecule
C12	Rn.20096	NM_001108410	Cd83	CD83 molecule
D01	Rn.6734	NM_020081	Cd86	CD86 molecule
D02	Rn.10306	NM_031538	Cd8a	CD8a molecule
D03	Rn.10330	NM_031539	Cd8b	CD8b molecule
D04	Rn.55482	NM_001025032	Cd96	CD96 molecule
D05	Rn.11224	NM_080397	Chst10	Carbohydrate sulfotransferase 10
D06	Rn.2953	NM_053304	Col1a1	Collagen, type I, alpha 1
D07	Rn.107239	NM_053356	Col1a2	Collagen, type I, alpha 2
D08	Rn.23490	NM_001105989	Cr2	Complement receptor 2
D09	Rn.72599	NM_001029901	Csf1r	Colony stimulating factor 1 receptor

Position	UniGene	GenBank	Symbol	Description
D10	Rn.10259	NM_031674	Ctla4	Cytotoxic T-lymphocyte-associated protein 4
D11	Rn.91364	NM_012789	Dpp4	Dipeptidylpeptidase 4
D12	Rn.187025	NM_001010968	Eng	Endoglin
E01	Rn.106481	NM_138541	Epcam	Epithelial cell adhesion molecule
E02	Rn.162521	NM_139194	Fas	Fas (TNF receptor superfamily, member 6)
E03	Rn.9677	NM_012724	Fcgr1a	Fc fragment of IgE, high affinity I, receptor for; alpha polypeptide
E04	Rn.10326	NM_133550	Fcgr2	Fc fragment of IgE, low affinity II, receptor for (CD23)
E05	Rn.16643	NM_001100836	Fcgr1a	Fc fragment of IgG, high affinity Ia, receptor (CD64)
E06	Rn.162206	NM_001007725	Icam2	Intercellular adhesion molecule 2
E07	Rn.162266	XM_344493	Il12rb1	Interleukin 12 receptor, beta 1
E08	Rn.10758	NM_053953	Il1r2	Interleukin 1 receptor, type II
E09	Rn.9872	NM_013163	Il2ra	Interleukin 2 receptor, alpha
E10	Rn.91044	NM_030994	Itga1	Integrin, alpha 1
E11	Rn.83597	XM_345156	Itga2	Integrin, alpha 2
E12	Rn.154664	NM_001108292	Itga3	Integrin, alpha 3
F01	Rn.9895	NM_001037441	Klrc1	Killer cell lectin-like receptor subfamily C, member 1
F02	Rn.6025	NM_012745	Klrd1	Killer cell lectin-like receptor, subfamily D, member 1
F03	Rn.103924	NM_053976	Krt18	Keratin 18
F04	Rn.120205	NM_183333	Krt5	Keratin 5
F05	Rn.11083	NM_199370	Krt8	Keratin 8
F06	Rn.16385	NM_001107578	Ms4a1	Membrane-spanning 4-domains, subfamily A, member 1
F07	Rn.98166	NM_031520	Myh10	Myosin, heavy chain 10, non-muscle
F08	Rn.11385	NM_013194	Myh9	Myosin, heavy chain 9, non-muscle
F09	Rn.163103	NM_182667	Myocd	Myocardin
F10	Rn.11283	NM_031521	Ncam1	Neural cell adhesion molecule 1
F11	Rn.44265	NM_021838	Nos3	Nitric oxide synthase 3, endothelial cell
F12	Rn.40132	NM_021576	Nt5e	5' nucleotidase, ecto
G01	Rn.1878	NM_031591	Pecam1	Platelet/endothelial cell adhesion molecule 1
G02	Rn.16746	NM_144741	Retn	Resistin
G03	Rn.103146	NM_001008847	RT1-Da	RT1 class II, locus Da
G04	Rn.31839	NM_053822	S100a8	S100 calcium binding protein A8
G05	Rn.10012	NM_013114	Selp	Selectin P
G06	Rn.54567	NM_147205	St6gal1	ST6 beta-galactosamide alpha-2,6-sialyltransferase 1
G07	Rn.9159	NM_001105737	Tek	TEK tyrosine kinase, endothelial
G08	Rn.48883	NM_013049	Tnfrsf4	Tumor necrosis factor receptor superfamily, member 4
G09	Rn.11322	NM_019135	Tnfrsf8	Tumor necrosis factor receptor superfamily, member 8
G10	Rn.10699	NM_019322	Tpsab1	Tryptase alpha/beta 1
G11	Rn.11267	NM_012889	Vcam1	Vascular cell adhesion molecule 1
G12	Rn.35561	XM_342759	Vwf	Von Willebrand factor
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