

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

Human Cell Surface Markers

Cat. no. 330231 PAHS-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™



Description

The Human 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	CD160	CD163	CD19	CD1A	CD1C	CD1D	CD2	CD209	CD22	CD24
B	CD244	CD247	CD28	CD37	CD38	CD3D	CD3G	CD4	CD40	CD40LG	CD5	CD6
C	CD63	CD69	CD7	CD70	CD72	CD74	CD79A	CD79B	CD80	CD83	CD86	CD8A
D	CD8B	CD96	CHST10	COL1A1	COL1A2	CR2	CSF1R	CTLA4	DPP4	ENG	EPCAM	FAS
E	FCER1A	FCER2	FCGR1A	HLA-A	HLA-DRA	ICAM2	IL12RB1	IL1R2	IL2RA	ITGA1	ITGA2	ITGA3
F	KLRB1	KLRC1	KLRD1	KRT18	KRT5	KRT8	MS4A1	MYH10	MYH9	MYOCD	NCAM1	NOS3
G	NTSE	PECAM1	RETN	S100A8	SELP	ST6GAL1	TEK	TNFRSF4	TNFRSF8	TPSAB1	VCAM1	VWF
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.591293	NM_001627	ALCAM	Activated leukocyte cell adhesion molecule
A02	Hs.2161	NM_001736	C5AR1	Complement component 5a receptor 1
A03	Hs.488237	NM_007053	CD160	CD160 molecule
A04	Hs.504641	NM_004244	CD163	CD163 molecule
A05	Hs.652262	NM_001770	CD19	CD19 molecule
A06	Hs.1309	NM_001763	CD1A	CD1a molecule
A07	Hs.132448	NM_001765	CD1C	CD1c molecule
A08	Hs.1799	NM_001766	CD1D	CD1d molecule
A09	Hs.523500	NM_001767	CD2	CD2 molecule
A10	Hs.278694	NM_021155	CD209	CD209 molecule
A11	Hs.579691	NM_001771	CD22	CD22 molecule
A12	Hs.644105	NM_013230	CD24	CD24 molecule
B01	Hs.157872	NM_016382	CD244	CD244 molecule, natural killer cell receptor 2B4
B02	Hs.156445	NM_000734	CD247	CD247 molecule
B03	Hs.591629	NM_006139	CD28	CD28 molecule
B04	Hs.166556	NM_001774	CD37	CD37 molecule
B05	Hs.479214	NM_001775	CD38	CD38 molecule
B06	Hs.504048	NM_000732	CD3D	CD3d molecule, delta (CD3-TCR complex)
B07	Hs.2259	NM_000073	CD3G	CD3g molecule, gamma (CD3-TCR complex)
B08	Hs.631659	NM_000616	CD4	CD4 molecule
B09	Hs.472860	NM_001250	CD40	CD40 molecule, TNF receptor superfamily member 5
B10	Hs.592244	NM_000074	CD40LG	CD40 ligand
B11	Hs.58685	NM_014207	CD5	CD5 molecule
B12	Hs.729486	NM_006725	CD6	CD6 molecule
C01	Hs.445570	NM_001780	CD63	CD63 molecule
C02	Hs.208854	NM_001781	CD69	CD69 molecule
C03	Hs.36972	NM_006137	CD7	CD7 molecule
C04	Hs.501497	NM_001252	CD70	CD70 molecule
C05	Hs.116481	NM_001782	CD72	CD72 molecule
C06	Hs.436568	NM_004355	CD74	CD74 molecule, major histocompatibility complex, class II invariant chain
C07	Hs.631567	NM_001783	CD79A	CD79a molecule, immunoglobulin-associated alpha
C08	Hs.89575	NM_000626	CD79B	CD79b molecule, immunoglobulin-associated beta
C09	Hs.838	NM_005191	CD80	CD80 molecule
C10	Hs.595133	NM_004233	CD83	CD83 molecule
C11	Hs.171182	NM_006889	CD86	CD86 molecule
C12	Hs.85258	NM_001768	CD8A	CD8a molecule
D01	Hs.405667	NM_004931	CD8B	CD8b molecule
D02	Hs.142023	NM_005816	CD96	CD96 molecule
D03	Hs.516370	NM_004854	CHST10	Carbohydrate sulfotransferase 10
D04	Hs.172928	NM_000088	COL1A1	Collagen, type I, alpha 1
D05	Hs.489142	NM_000089	COL1A2	Collagen, type I, alpha 2
D06	Hs.445757	NM_001877	CR2	Complement component (3d/Epstein Barr virus) receptor 2
D07	Hs.654394	NM_005211	CSF1R	Colony stimulating factor 1 receptor
D08	Hs.247824	NM_005214	CTLA4	Cytotoxic T-lymphocyte-associated protein 4
D09	Hs.368912	NM_001935	DPP4	Dipeptidyl-peptidase 4

Position	UniGene	GenBank	Symbol	Description
D10	Hs.76753	NM_000118	ENG	Endoglin
D11	Hs.542050	NM_002354	EPCAM	Epithelial cell adhesion molecule
D12	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
E01	Hs.897	NM_002001	FCERT1A	Fc fragment of IgE, high affinity I, receptor for; alpha polypeptide
E02	Hs.465778	NM_002002	FCER2	Fc fragment of IgE, low affinity II, receptor for (CD23)
E03	Hs.77424	NM_000566	FCGR1A	Fc fragment of IgG, high affinity Ia, receptor (CD64)
E04	Hs.181244	NM_002116	HLA-A	Major histocompatibility complex, class I, A
E05	Hs.520048	NM_019111	HLA-DRA	Major histocompatibility complex, class II, DR alpha
E06	Hs.431460	NM_000873	ICAM2	Intercellular adhesion molecule 2
E07	Hs.567294	NM_005535	IL12RB1	Interleukin 12 receptor, beta 1
E08	Hs.25333	NM_004633	IL1R2	Interleukin 1 receptor, type II
E09	Hs.231367	NM_000417	IL2RA	Interleukin 2 receptor, alpha
E10	Hs.644352	NM_181501	ITGA1	Integrin, alpha 1
E11	Hs.482077	NM_002203	ITGA2	Integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)
E12	Hs.265829	NM_002204	ITGA3	Integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor)
F01	Hs.169824	NM_002258	KLRB1	Killer cell lectin-like receptor subfamily B, member 1
F02	Hs.512576	NM_002259	KLRC1	Killer cell lectin-like receptor subfamily C, member 1
F03	Hs.562457	NM_002262	KLRD1	Killer cell lectin-like receptor subfamily D, member 1
F04	Hs.406013	NM_000224	KRT18	Keratin 18
F05	Hs.433845	NM_000424	KRT5	Keratin 5
F06	Hs.533782	NM_002273	KRT8	Keratin 8
F07	Hs.712553	NM_021950	MS4A1	Membrane-spanning 4-domains, subfamily A, member 1
F08	Hs.16355	NM_005964	MYH10	Myosin, heavy chain 10, non-muscle
F09	Hs.474751	NM_002473	MYH9	Myosin, heavy chain 9, non-muscle
F10	Hs.567641	NM_153604	MYOCD	Myocardin
F11	Hs.503878	NM_000615	NCAM1	Neural cell adhesion molecule 1
F12	Hs.707978	NM_000603	NOS3	Nitric oxide synthase 3 (endothelial cell)
G01	Hs.153952	NM_002526	NT5E	5'-nucleotidase, ecto (CD73)
G02	Hs.514412	NM_000442	PECAM1	Platelet/endothelial cell adhesion molecule
G03	Hs.283091	NM_020415	RETN	Resistin
G04	Hs.416073	NM_002964	S100A8	S100 calcium binding protein A8
G05	Hs.73800	NM_003005	SELP	Selectin P (granule membrane protein 140kDa, antigen CD62)
G06	Hs.207459	NM_003032	ST6GAL1	ST6 beta-galactosamide alpha-2,6-sialyltransferase 1
G07	Hs.89640	NM_000459	TEK	TEK tyrosine kinase, endothelial
G08	Hs.129780	NM_003327	TNFRSF4	Tumor necrosis factor receptor superfamily, member 4
G09	Hs.1314	NM_001243	TNFRSF8	Tumor necrosis factor receptor superfamily, member 8
G10	Hs.405479	NM_003294	TPSAB1	Tryptase alpha/beta 1
G11	Hs.109225	NM_001078	VCAM1	Vascular cell adhesion molecule 1
G12	Hs.440848	NM_000552	VWF	Von Willebrand factor
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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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