

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

Rat Inflammatory Response & Autoimmunity

Cat. no. 330231 PARN-077ZA

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 Inflammatory Response & Autoimmunity RT² Profiler PCR Array profiles the expression of 84 key genes involved in autoimmune and inflammatory immune responses. It represents the expression of inflammatory cytokines and chemokines as well as their receptors. It also contains genes related to the metabolism of cytokines and involved in cytokine-cytokine receptor interactions. Thoroughly researched panels of genes involved in the acute-phase response, inflammatory response, and humoral immune responses are represented as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to inflammatory and autoimmune responses 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	Bcl6	C3	C3ar1	C4b	Ccl1	Ccl11	Ccl12	Ccl17	Ccl19	Ccl2	Ccl20	Ccl21
B	Ccl22	Ccl24	Ccl25	Ccl3	Ccl4	Ccl5	Ccl6	Ccl7	Ccr1	Ccr2	Ccr3	Ccr4
C	Ccr7	Cd14	Cd40	Cd40lg	Cebpb	Crp	Csf1	Cxcl1	Cxcl10	Cxcl11	Cxcl2	Cxcl3
D	Cxcl5	Cxcl9	Cxcr2	Cxcr4	Faslg	Fos	Ifng	Il10	Il10rb	Il17a	Il18	Il1a
E	Il1b	Il1r1	Il1rap	Il1rn	Il22	Il23a	Il23r	Il5	Il6	Il6r	Il7	Il8ra
F	Il9	Ilgb2	Kngr1	Lta	Ltb	Ly96	Myd88	Nfkb1	Nos2	Nr3c1	Pigs2	Ripk2
G	Sele	Tirap	Tlr1	Tlr2	Tlr3	Tlr4	Tlr5	Tlr6	Tlr7	Tnf	Tnfrsf14	Tollip
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.20571	NM_001107084	Bcl6	B-cell CLL/lymphoma 6
A02	Rn.11378	NM_016994	C3	Complement component 3
A03	Rn.9772	NM_032060	C3ar1	Complement component 3a receptor 1
A04	Rn.81052	NM_031504	C4b	Complement component 4B (Chido blood group)
A05	Rn.157282	XM_001067590	Ccl1	Chemokine (C-C motif) ligand 1
A06	Rn.10632	NM_019205	Ccl11	Chemokine (C-C motif) ligand 11
A07	Rn.137780	NM_001105822	Ccl12	Chemokine (C-C motif) ligand 12
A08	Rn.46679	NM_057151	Ccl17	Chemokine (C-C motif) ligand 17
A09	Rn.12445	NM_001108661	Ccl19	Chemokine (C-C motif) ligand 19
A10	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
A11	Rn.10722	NM_019233	Ccl20	Chemokine (C-C motif) ligand 20
A12	Rn.39658	NM_001008513	Ccl21	Chemokine (C-C motif) ligand 21
B01	Rn.48727	NM_057203	Ccl22	Chemokine (C-C motif) ligand 22
B02	Rn.138822	NM_001013045	Ccl24	Chemokine (C-C motif) ligand 24
B03	Rn.140677	NM_001037203	Ccl25	Chemokine (C-C motif) ligand 25
B04	Rn.10139	NM_013025	Ccl3	Chemokine (C-C motif) ligand 3
B05	Rn.37880	NM_053858	Ccl4	Chemokine (C-C motif) ligand 4
B06	Rn.8019	NM_031116	Ccl5	Chemokine (C-C motif) ligand 5
B07	Rn.7857	NM_001004202	Ccl6	Chemokine (C-C motif) ligand 6
B08	Rn.26815	NM_001007612	Ccl7	Chemokine (C-C motif) ligand 7
B09	Rn.34673	NM_020542	Ccr1	Chemokine (C-C motif) receptor 1
B10	Rn.211983	NM_021866	Ccr2	Chemokine (C-C motif) receptor 2
B11	Rn.9890	NM_053958	Ccr3	Chemokine (C-C motif) receptor 3
B12	Rn.81076	NM_133532	Ccr4	Chemokine (C-C motif) receptor 4
C01	Rn.16815	NM_199489	Ccr7	Chemokine (C-C motif) receptor 7
C02	Rn.42942	NM_021744	Cd14	CD14 molecule
C03	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
C04	Rn.44218	NM_053353	Cd40lg	CD40 ligand
C05	Rn.6479	NM_024125	Cebpb	CCAAT/enhancer binding protein (C/EBP), beta
C06	Rn.16463	NM_017096	Crp	C-reactive protein, pentraxin-related
C07	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
C08	Rn.10907	NM_030845	Cxcl1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
C09	Rn.10584	NM_139089	Cxcl10	Chemokine (C-X-C motif) ligand 10
C10	Rn.13664	NM_182952	Cxcl11	Chemokine (C-X-C motif) ligand 11
C11	Rn.10230	NM_053647	Cxcl2	Chemokine (C-X-C motif) ligand 2
C12	Rn.10525	NM_138522	Cxcl3	Chemokine (C-X-C motif) ligand 3
D01	Rn.44449	NM_022214	Cxcl5	Chemokine (C-X-C motif) ligand 5
D02	Rn.7391	NM_145672	Cxcl9	Chemokine (C-X-C motif) ligand 9
D03	Rn.90347	NM_017183	Cxcr2	Chemokine (C-X-C motif) receptor 2
D04	Rn.44431	NM_022205	Cxcr4	Chemokine (C-X-C motif) receptor 4
D05	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
D06	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
D07	Rn.10795	NM_138880	Ifng	Interferon gamma
D08	Rn.9868	NM_012854	Il10	Interleukin 10
D09	Rn.22261	NM_001107111	Il10rb	Interleukin 10 receptor, beta

Position	UniGene	GenBank	Symbol	Description
D10	Rn.218513	NM_001106897	Il17a	Interleukin 17A
D11	Rn.111118	NM_019165	Il18	Interleukin 18
D12	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
E01	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
E02	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type I
E03	Rn.10511	NM_012968	Il1rap	Interleukin 1 receptor accessory protein
E04	Rn.162640	NM_022194	Il1rn	Interleukin 1 receptor antagonist
E05	Rn.195879	XM_576228	Il22	Interleukin 22
E06	Rn.81073	NM_130410	Il23a	Interleukin 23, alpha subunit p19
E07	Rn.134349	XM_001072576	Il23r	Interleukin 23 receptor
E08	Rn.44227	NM_021834	Il5	Interleukin 5
E09	Rn.9873	NM_012589	Il6	Interleukin 6
E10	Rn.1716	NM_017020	Il6r	Interleukin 6 receptor
E11	Rn.10793	NM_013110	Il7	Interleukin 7
E12	Rn.138115	NM_019310	Il8ra	Interleukin 8 receptor, alpha
F01	Rn.92374	NM_001105747	Il9	Interleukin 9
F02	Rn.42962	NM_001037780	Itgb2	Integrin, beta 2
F03	Rn.128333	NM_012696	Kng1	Kininogen 1
F04	Rn.160577	NM_080769	Lta	Lymphotoxin alpha (TNF superfamily, member 1)
F05	Rn.203016	NM_212507	Ltb	Lymphotoxin beta (TNF superfamily, member 3)
F06	Rn.141496	NM_001024279	Ly96	Lymphocyte antigen 96
F07	Rn.37341	NM_198130	Myd88	Myeloid differentiation primary response gene 88
F08	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F09	Rn.10400	NM_012611	Nos2	Nitric oxide synthase 2, inducible
F10	Rn.90070	NM_012576	Nr3c1	Nuclear receptor subfamily 3, group C, member 1
F11	Rn.44369	NM_017232	Ptgs2	Prostaglandin-endoperoxide synthase 2
F12	Rn.102179	XM_342810	Ripk2	Receptor-interacting serine-threonine kinase 2
G01	Rn.10359	NM_138879	Sele	Selectin E
G02	N/A	XM_001055833	Tirap	Toll-interleukin 1 receptor (TIR) domain-containing adaptor protein
G03	Rn.107212	NM_001172120	Tlr1	Toll-like receptor 1
G04	Rn.46387	NM_198769	Tlr2	Toll-like receptor 2
G05	Rn.15273	NM_198791	Tlr3	Toll-like receptor 3
G06	Rn.14534	NM_019178	Tlr4	Toll-like receptor 4
G07	Rn.198962	NM_001145828	Tlr5	Toll-like receptor 5
G08	Rn.163249	NM_207604	Tlr6	Toll-like receptor 6
G09	Rn.219862	NM_001097582	Tlr7	Toll-like receptor 7
G10	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G11	N/A	XM_236794	Tnfsf14	Tumor necrosis factor (ligand) superfamily, member 14
G12	Rn.137040	NM_001109668	Tollip	Toll interacting protein
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.

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