

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

Rhesus Macaque Th17 Response

Cat. no. 330231 PAQQ-073ZA

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 Rhesus macaque Th17 Response RT² Profiler PCR Array profiles the expression of 84 genes related to the Th17 Regulatory Network. Th17 is a newly defined subset of CD4(+) T cells that is distinct from the traditional Th1, Th2, and Treg. Th17 is highly proinflammatory and induces severe autoimmunity. This array contains surface molecules, cytokines and receptors, chemokines, matrix metalloproteinases, cell signaling molecules, and transcriptional factors. Using real-time PCR, research studies can easily and reliably analyze expression of a focused panel of genes related to the Th17 regulatory network 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	CCL1	CCL2	CCL20	CCR2B	CCR4	CCR6	CD28	CD4	CD40LG	CLEC7A	CRP	CSF2
B	CSF3	CX3CL1	CXCL1	CXCL12	CXCL2	CXCL5	CXCL6	FOXP3	GATA3	ICAM1	ICOS	IFNG
C	IL10	IL12B	IL12RB1	IL12RB2	IL13	IL15	IL17A	IL17F	IL17RA	IL17RB	IL17RC	IL17RE
D	IL18	IL1B	IL1R1	IL2	IL21	IL22	IL23A	IL23R	IL3	IL4	IL5	IL6
E	IL6R	IL7R	IL8	IRF4	ISG20	JAK1	JAK2	LOC708678	LOC710618	LOC712292	LOC713191	LOC713858
F	IL25	LOC714751	LOC716907	MMP3	MMP9	MYD88	NFATC2	NFKB1	RORA	RORC	RUNX1	S1PR1
G	SOCS1	SOCS3	STAT3	STAT4	STAT5A	STAT6	SYK	TBX21	TGFB1	TLR4	TNF	TNFSF11
H	ACTB	B2M	GAPDH	LOC709186	RPL13A	QGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mmu.3702	NM_001032849	CCL1	Chemokine (C-C motif) ligand 1
A02	Mmu.3491	NM_001032821	CCL2	Chemokine (C-C motif) ligand 2
A03	Mmu.3708	NM_001032854	CCL20	Chemokine (C-C motif) ligand 20
A04	Mmu.3460	NM_001032806	CCR2B	Chemokine receptor
A05	Mmu.14927	XM_001098807	CCR4	Chemokine (C-C motif) receptor 4
A06	Mmu.3681	NM_001032935	CCR6	Chemokine (C-C motif) receptor 6
A07	Mmu.3578	NM_001042641	CD28	CD28 molecule
A08	Mmu.3291	NM_001042662	CD4	CD4 molecule
A09	Mmu.3581	NM_001032839	CD40LG	CD40 ligand
A10	Mmu.3680	NM_001032943	CLEC7A	C-type lectin domain family 7, member A
A11	Mmu.3013	XM_001117250	CRP	C-reactive protein, pentraxin-related
A12	Mmu.3665	NM_001032949	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B01	Mmu.15567	XM_001095097	CSF3	Colony stimulating factor 3 (granulocyte)
B02	Mmu.3716	NM_001032881	CX3CL1	Chemokine (C-X3-C motif) ligand 1
B03	Mmu.3712	NM_001032878	CXCL1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
B04	Mmu.3714	NM_001032934	CXCL12	Chemokine (C-X-C motif) ligand 12
B05	N/A	XM_001092240	CXCL2	Chemokine (C-X-C motif) ligand 2
B06	N/A	XM_001091762	CXCL5	Chemokine (C-X-C motif) ligand 5
B07	Mmu.1051	XM_001103136	CXCL6	Chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2)
B08	Mmu.3791	NM_001032918	FOXP3	Forkhead box P3
B09	Mmu.16194	XM_001108337	GATA3	GATA binding protein 3
B10	Mmu.3807	XM_001100841	ICAM1	Intercellular adhesion molecule 1
B11	Mmu.15916	XM_001104581	ICOS	Inducible T-cell co-stimulator
B12	Mmu.3373	NM_001032905	IFNG	Interferon-gamma
C01	Mmu.3374	NM_001044727	IL10	Interleukin 10
C02	Mmu.3413	NM_001044725	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
C03	Mmu.3505	XM_001115186	IL12RB1	Interleukin 12 receptor, beta 1
C04	Mmu.12301	XM_001094235	IL12RB2	Interleukin 12 receptor, beta 2
C05	Mmu.3675	NM_001032929	IL13	Interleukin 13
C06	Mmu.3414	NM_001044731	IL15	Interleukin 15
C07	Mmu.14785	XM_001106391	IL17A	Interleukin 17A
C08	N/A	XM_001106517	IL17F	Interleukin-17F-like
C09	Mmu.16084	XM_001102483	IL17RA	Interleukin 17 receptor A
C10	N/A	XM_001082504	IL17RB	Interleukin 17 receptor B
C11	Mmu.18387	XM_001092448	IL17RC	Interleukin 17 receptor C
C12	Mmu.162	XM_001091392	IL17RE	Interleukin 17 receptor E
D01	Mmu.3545	NM_001032834	IL18	Interleukin 18 (interferon-gamma-inducing factor)
D02	Mmu.648	NM_001042756	IL1B	Interleukin 1, beta
D03	Mmu.12735	XM_001107510	IL1R1	Interleukin 1 receptor, type I
D04	Mmu.3415	NM_001047130	IL2	Interleukin 2
D05	Mmu.18852	XM_001103613	IL21	Interleukin 21
D06	Mmu.18853	XM_001117159	IL22	Interleukin 22
D07	Mmu.18854	XM_001115026	IL23A	Interleukin 23, alpha subunit p19
D08	N/A	XM_001093896	IL23R	Interleukin 23 receptor

Position	UniGene	GenBank	Symbol	Description
D09	Mmu.16387	NM_001101734	IL3	Interleukin 3 (colony-stimulating factor, multiple)
D10	Mmu.3375	NM_001032904	IL4	Interleukin 4
D11	Mmu.3362	NM_001047133	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
D12	Mmu.3376	NM_001042733	IL6	Interleukin 6 (interferon, beta 2)
E01	Mmu.13612	XM_001114404	IL6R	Interleukin 6 receptor
E02	Mmu.12488	XM_001092582	IL7R	Interleukin 7 receptor
E03	Mmu.3363	NM_001032965	IL8	Interleukin 8
E04	Mmu.15461	XM_001094391	IRF4	Interferon regulatory factor 4
E05	Mmu.13407	XM_001090239	ISG20	Interferon stimulated exonuclease gene 20kDa
E06	Mmu.2703	XM_002801620	JAK1	Janus kinase 1
E07	Mmu.12996	XM_001082883	JAK2	Janus kinase 2
E08	N/A	XM_001097165	LOC708678	Interleukin-27 subunit alpha-like
E09	N/A	XM_001099282	LOC710618	Hypothetical LOC710618
E10	Mmu.16382	XM_001110897	LOC712292	Interleukin-9-like
E11	Mmu.808	XM_001102454	LOC713191	CCAAT/enhancer-binding protein beta-like
E12	Mmu.2683	XM_001111016	LOC713858	Hematopoietic progenitor cell antigen CD34-like
F01	N/A	XM_001107906	IL25	Interleukin-25
F02	N/A	XM_001113381	LOC714751	C-C motif chemokine 7-like
F03	Mmu.13554	NM_001135796	LOC716907	TNF receptor-associated factor 6
F04	N/A	XM_001098400	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
F05	Mmu.16121	XM_001104871	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
F06	Mmu.17494	NM_001130681	MYD88	Myeloid differentiation primary response gene (88)
F07	N/A	XM_001099268	NFATC2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
F08	Mmu.12391	XM_001109277	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F09	N/A	XM_001100971	RORA	RAR-related orphan receptor A
F10	N/A	XM_002801778	RORC	RAR-related orphan receptor C
F11	Mmu.14911	XM_001086981	RUNX1	Runt-related transcription factor 1
F12	Mmu.16632	XM_001107778	S1PR1	Sphingosine-1-phosphate receptor 1
G01	Mmu.12396	XM_001104595	SOCS1	Suppressor of cytokine signaling 1
G02	Mmu.19403	XM_001106015	SOCS3	Suppressor of cytokine signaling 3
G03	Mmu.2929	XM_001109505	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G04	Mmu.13224	XM_001082561	STAT4	Signal transducer and activator of transcription 4
G05	Mmu.3515	XM_001109557	STAT5A	Signal transducer and activator of transcription 5A
G06	Mmu.11577	XM_001115686	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
G07	Mmu.15644	XM_001101034	SYK	Spleen tyrosine kinase
G08	Mmu.13939	XM_001082367	TBX21	T-box 21
G09	Mmu.3765	XM_001100842	TGFB1	Transforming growth factor, beta 1
G10	Mmu.3814	NM_001037092	TLR4	Toll-like receptor 4
G11	Mmu.3364	NM_001047149	TNF	Tumor necrosis factor
G12	Mmu.15509	XM_001092669	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11
H01	Mmu.4974	NM_001033084	ACTB	Actin, beta
H02	Mmu.5037	NM_001047137	B2M	Beta-2-microglobulin
H03	Mmu.3145	XM_001105471	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mmu.12316	XM_001097691	LOC709186	Hypoxanthine-guanine phosphoribosyltransferase-like
H05	Mmu.2512	XM_001115079	RPL13A	Ribosomal protein L13A
H06	N/A	SA_00125	QGDC	Rhesus Macaque 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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