

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

Rhesus Macaque Innate & Adaptive Immune Responses

Cat. no. 330231 PAQQ-052ZA

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 Rhesus Macaque Innate & Adaptive Immune Responses RT² Profiler™ PCR Array profiles the expression of 84 genes involved in the host response to bacterial infection and sepsis. This array includes genes related to the IL-1R and Toll-like Receptor (TLR) Signaling Pathways including IL-1R and TLR genes involved in the detection of pathogens. Genes related to the host defense to bacteria are represented on this array including genes involved in the detection of bacteria, and genes involved in the acute-phase response, complement activation, the inflammatory response, and the antibacterial humoral response. Genes involved in the innate immune response and septic shock are also included on this array. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the innate and adaptive immune 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	C3	CASP1	CCL2	CCL5	CCR4	CCR5	CCR6	CCR8	CD14	CD4	CD40	CD40LG
B	CD80	CD86	CRP	CSF2	CXCL10	CXCR3	DDX58	FAS	FASLG	FOXP3	GATA3	ICAM1
C	IFNAR1	IFNB1	IFNG	IFNGR1	IL10	IL13	IL15	IL17A	IL18	IL1A	IL1B	IL1R1
D	IL2	IL23A	IL4	IL5	IL6	IL8	IRF1	IRF3	IRF6	IRF7	JAK2	LBP
E	LOC716452	LOC716907	LOC719421	LY96	LYZ	MAPK1	MAPK8	MBL2	MIF	MPO	MX1	MYD88
F	NFKB1	NFKBIA	NLRP3	NOD1	NOD2	RAG1	SLC11A1	STAT1	STAT3	STAT4	STAT6	TBX21
G	TICAM1	TLR1	TLR2	TLR3	TLR4	TLR5	TLR6	TLR7	TLR8	TLR9	TNF	TYK2
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.3133	XM_001091921	C3	Complement component 3
A02	Mmu.11508	XM_001094943	CASP1	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
A03	Mmu.3491	NM_001032821	CCL2	Chemokine (C-C motif) ligand 2
A04	Mmu.3698	NM_001032850	CCL5	Chemokine (C-C motif) ligand 5
A05	Mmu.14927	XM_001098807	CCR4	Chemokine (C-C motif) receptor 4
A06	Mmu.3440	NM_001042773	CCR5	Chemokine (C-C motif) receptor 5
A07	Mmu.3681	NM_001032935	CCR6	Chemokine (C-C motif) receptor 6
A08	N/A	XM_001084047	CCR8	Chemokine (C-C motif) receptor 8
A09	Mmu.11968	NM_001130433	CD14	CD14 molecule
A10	Mmu.3291	NM_001042662	CD4	CD4 molecule
A11	N/A	XM_001104333	CD40	CD40 molecule, TNF receptor superfamily member 5
A12	Mmu.3581	NM_001032839	CD40LG	CD40 ligand
B01	Mmu.3359	NM_001042642	CD80	CD80 molecule
B02	Mmu.3580	NM_001042644	CD86	CD86 molecule
B03	Mmu.3013	XM_001117250	CRP	C-reactive protein, pentraxin-related
B04	Mmu.3665	NM_001032949	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B05	Mmu.2740	NM_001032892	CXCL10	Chemokine (C-X-C motif) ligand 10
B06	Mmu.8534	NM_001145040	CXCR3	Chemokine (C-X-C motif) receptor 3
B07	Mmu.5165	NM_001042668	DDX58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58
B08	Mmu.649	NM_001032933	FAS	Fas (TNF receptor superfamily, member 6)
B09	Mmu.3579	NM_001032838	FASLG	Fas ligand (TNF superfamily, member 6)
B10	Mmu.3791	NM_001032918	FOXP3	Forkhead box P3
B11	Mmu.16194	XM_001108337	GATA3	GATA binding protein 3
B12	Mmu.3807	XM_001100841	ICAM1	Intercellular adhesion molecule 1
C01	Mmu.14907	XM_001092098	IFNAR1	Interferon (alpha, beta and omega) receptor 1
C02	Mmu.15664	NM_001135795	IFNB1	Interferon, beta 1, fibroblast
C03	Mmu.3373	NM_001032905	IFNG	Interferon-gamma
C04	Mmu.822	XM_002803880	IFNGR1	Interferon gamma receptor 1
C05	Mmu.3374	NM_001044727	IL10	Interleukin 10
C06	Mmu.3675	NM_001032929	IL13	Interleukin 13
C07	Mmu.3414	NM_001044731	IL15	Interleukin 15
C08	Mmu.14785	XM_001106391	IL17A	Interleukin 17A
C09	Mmu.3545	NM_001032834	IL18	Interleukin 18 (interferon-gamma-inducing factor)
C10	Mmu.3361	NM_001042757	IL1A	Interleukin 1, alpha
C11	Mmu.648	NM_001042756	IL1B	Interleukin 1, beta
C12	Mmu.12735	XM_001107510	IL1R1	Interleukin 1 receptor, type I
D01	Mmu.3415	NM_001047130	IL2	Interleukin 2
D02	Mmu.18854	XM_001115026	IL23A	Interleukin 23, alpha subunit p19
D03	Mmu.3375	NM_001032904	IL4	Interleukin 4
D04	Mmu.3362	NM_001047133	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
D05	Mmu.3376	NM_001042733	IL6	Interleukin 6 (interferon, beta 2)
D06	Mmu.3363	NM_001032965	IL8	Interleukin 8
D07	Mmu.11578	XM_001104294	IRF1	Interferon regulatory factor 1
D08	Mmu.925	NM_001135797	IRF3	Interferon regulatory factor 3
D09	Mmu.13081	XM_001110368	IRF6	Interferon regulatory factor 6

Position	UniGene	GenBank	Symbol	Description
D10	Mmu.11935	NM_001136100	IRF7	Interferon regulatory factor 7
D11	Mmu.12996	XM_001082883	JAK2	Janus kinase 2
D12	Mmu.3027	XM_001094451	LBP	Lipopolysaccharide binding protein
E01	Mmu.18417	XM_001114665	LOC716452	Transcription factor AP-1-like
E02	Mmu.13554	NM_001135796	LOC716907	TNF receptor-associated factor 6
E03	Mmu.11930	XM_001117234	LOC719421	Serum amyloid P-component-like
E04	Mmu.17492	NM_001130432	LY96	Lymphocyte antigen 96
E05	Mmu.1820	NM_001101733	LYZ	Lysozyme
E06	Mmu.13662	XM_001089600	MAPK1	Mitogen-activated protein kinase 1
E07	Mmu.3822	XM_001108815	MAPK8	Mitogen-activated protein kinase 8
E08	Mmu.3409	NM_001105535	MBL2	Mannose-binding lectin (protein C) 2, soluble
E09	Mmu.29	NM_001032915	MIF	Macrophage migration inhibitory factor (glycosylation-inhibiting factor)
E10	N/A	XM_001103896	MPO	Myeloperoxidase
E11	Mmu.454	NM_001079693	MX1	Myxovirus (influenza virus) resistance 1, interferon-inducible protein p78 (mouse)
E12	Mmu.17494	NM_001130681	MYD88	Myeloid differentiation primary response gene (88)
F01	Mmu.12391	XM_001109277	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F02	Mmu.12474	XM_001087842	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
F03	Mmu.12334	NM_001114351	NLRP3	NLR family, pyrin domain containing 3
F04	Mmu.10897	XM_001085719	NOD1	Nucleotide-binding oligomerization domain containing 1
F05	N/A	XM_001084287	NOD2	Nucleotide-binding oligomerization domain containing 2
F06	N/A	XM_001084631	RAG1	Recombination activating gene 1
F07	Mmu.12026	XM_001089328	SLC11A1	Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1
F08	Mmu.3514	XM_002799015	STAT1	Signal transducer and activator of transcription 1, 91kDa
F09	Mmu.2929	XM_001109505	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
F10	Mmu.13224	XM_001082561	STAT4	Signal transducer and activator of transcription 4
F11	Mmu.11577	XM_001115686	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
F12	Mmu.13939	XM_001082367	TBX21	T-box 21
G01	Mmu.3854	NM_001130428	TICAM1	Toll-like receptor adaptor molecule 1
G02	Mmu.4217	NM_001130424	TLR1	Toll-like receptor 1
G03	Mmu.3812	NM_001130425	TLR2	Toll-like receptor 2
G04	Mmu.3813	NM_001036685	TLR3	Toll-like receptor 3
G05	Mmu.3814	NM_001037092	TLR4	Toll-like receptor 4
G06	Mmu.3815	NM_001130429	TLR5	Toll-like receptor 5
G07	Mmu.3816	NM_001130430	TLR6	Toll-like receptor 6
G08	Mmu.3817	NM_001130426	TLR7	Toll-like receptor 7
G09	Mmu.3818	NM_001130427	TLR8	Toll-like receptor 8
G10	Mmu.3819	NM_001130431	TLR9	Toll-like receptor 9
G11	Mmu.3364	NM_001047149	TNF	Tumor necrosis factor
G12	Mmu.3516	XM_001101130	TYK2	Tyrosine kinase 2
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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