

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

Rhesus Macaque NFκB Signaling Pathway

Cat. no. 330231 PAQQ-025ZA

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 NFκB Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 key genes related to NFκB-mediated signal transduction. The array includes genes that encode members of the Rel, NFκB, and IκB families, NFκB-responsive genes, extracellular ligands and receptors that activate the pathway, and kinases and transcription factors that propagate the signal. NFκB-mediated signal transduction has been implicated in the regulation of viral replication, autoimmune diseases, the inflammatory response, tumorigenesis and apoptosis. A set of controls present on each array enables data analysis using the $\Delta\Delta\text{CT}$ method of relative quantification and assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, research studies can easily and reliably analyze expression of a focused panel of genes involved in the NFκB signal transduction pathway 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	AGT	AKT1	ATF1	BCL2A1	BCL2L1	BCL3	BIRC2	BIRC3	CARD11	CASP1	CASP8	CCL2
B	CCL20	CCL5	CD40	CD40LG	CD83	CFLAR	CHUK	CSF1	CSF2	CSF3	CXCL2	EGFR
C	EGR1	FASLG	FOS	HMOX1	ICAM1	IFNG	IKBKB	IKBKG	IL10	IL1A	IL1B	IL1R1
D	CXCL8	IRAK1	IRAK2	IRF1	JUN	LOC694631	LOC698160	RHOA	LOC708606	TNFRSF10B	LOC722713	LTA
E	LTBR	MALT1	MAP3K1	MYD88	NFKB1	NFKB2	NFKBIA	NFKBIE	NOD1	PLAU	PSIP1	RAF1
F	REL	RELA	RELB	RIPK1	STAT1	STX11	TBK1	TICAM1	TIFA	TIMP1	TLR1	TLR2
G	TLR3	TLR4	TLR6	TLR9	TNF	TNFAIP3	TNFRSF10A	TNFRSF1A	TNFSF10	TRAF2	TRAF3	TRAF6
H	ACTB	B2M	GAPDH	LOC709186	RPL13A	QGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description	Assay
A01	Mmu.11931	XM_001107374	AGT	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)	PPQ14431B
A02	Mmu.28543	XM_001085265	AKT1	V-akt murine thymoma viral oncogene homolog 1	PPQ03596A
A03	Mmu.20748	XM_001083228	ATF1	Activating transcription factor 1	PPQ00717A
A04	Mmu.20714	XM_001109281	BCL2A1	BCL2-related protein A1	PPQ13356D
A05	Mmu.23280	XM_001110285	BCL2L1	BCL2-like 1	PPQ13656C
A06	Mmu.25483	XM_001109319	BCL3	B-cell CLL/lymphoma 3	PPQ13667B
A07	Mmu.1906	XM_001097089	BIRC2	Baculoviral IAP repeat containing 2	PPQ06839B
A08	Mmu.2837	XM_001096429	BIRC3	Baculoviral IAP repeat containing 3	PPQ06761B
A09	Mmu.20735	XM_001104636	CARD11	Caspase recruitment domain family, member 11	PPQ14773B
A10	Mmu.20264	XM_015115567	CASP1	Caspase 1	PPQ09482B
A11	Mmu.26920	XM_001091080	CASP8	Caspase 8, apoptosis-related cysteine peptidase	PPQ06961A
A12	Mmu.3491	NM_001032821	CCL2	Chemokine (C-C motif) ligand 2	PPQ00041A
B01	Mmu.3708	NM_001032854	CCL20	Chemokine (C-C motif) ligand 20	PPQ00084A
B02	Mmu.3698	NM_001032850	CCL5	Chemokine (C-C motif) ligand 5	PPQ00080A
B03	Mmu.32748	XM_001104333	CD40	CD40 molecule, TNF receptor superfamily member 5	PPQ10248B
B04	Mmu.3581	NM_001032839	CD40LG	CD40 ligand	PPQ00062B
B05	Mmu.4253	XM_001093591	CD83	CD83 molecule	PPQ06346A
B06	Mmu.3649	XM_001096860	CFLAR	CASP8 and FADD-like apoptosis regulator	PPQ00134B
B07	Mmu.16157	XM_001107171	CHUK	Conserved helix-loop-helix ubiquitous kinase	PPQ11400B
B08	Mmu.21808	XM_001090841	CSF1	Colony stimulating factor 1 (macrophage)	PPQ06801A
B09	Mmu.3665	NM_001032949	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)	PPQ00266A
B10	N/A	XM_001095097	CSF3	Colony stimulating factor 3 (granulocyte)	PPQ04421A
B11	N/A	XM_001092240	CXCL2	Chemokine (C-X-C motif) ligand 2	PPQ69053B
B12	Mmu.3397	XM_001107305	EGFR	Epidermal growth factor receptor	PPQ00297A
C01	Mmu.20936	XM_001107731	EGR1	Early growth response 1	PPQ16102B
C02	Mmu.3579	NM_001032838	FASLG	Fas ligand (TNF superfamily, member 6)	PPQ00061A
C03	Mmu.1563	NM_001098399	FOS	FBJ murine osteosarcoma viral oncogene homolog	PPQ06511B
C04	Mmu.10024	XM_001113241	HMOX1	Heme oxygenase (decycling) 1	PPQ17695A
C05	Mmu.3807	NM_001047135	ICAM1	Intercellular adhesion molecule 1	PPQ13168A
C06	Mmu.3373	NM_001032905	IFNG	Interferon-gamma	PPQ00179A
C07	Mmu.11069	XM_001096913	IKBKB	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta	PPQ08227B
C08	Mmu.22171	XM_001095498	IKBKG	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma	PPQ05948A
C09	Mmu.3374	NM_001044727	IL10	Interleukin 10	PPQ01623B
C10	Mmu.3361	NM_001042757	IL1A	Interleukin 1, alpha	PPQ05235B
C11	Mmu.648	NM_001042756	IL1B	Interleukin 1, beta	PPQ08239B
C12	Mmu.26718	XM_001107510	IL1R1	Interleukin 1 receptor, type I	PPQ12806B
D01	Mmu.3363	NM_001032965	CXCL8	Interleukin 8	PPQ00298A
D02	Mmu.8469	XM_015128547	IRAK1	Interleukin 1 receptor associated kinase 1	PPQ69088A
D03	Mmu.21858	XM_001090790	IRAK2	Interleukin-1 receptor-associated kinase 2	PPQ03841B
D04	Mmu.20324	XM_001104294	IRF1	Interferon regulatory factor 1	PPQ10274A
D05	Mmu.18417	XM_001114665	JUN	Transcription factor AP-1-like	PPQ15891B
D06	N/A	XM_001082177	LOC694631	Interferon alpha-1/13-like	PPQ01419A
				Tumor necrosis factor receptor type 1-associated DEATH domain	

Position	UniGene	GenBank	Symbol	Description	Assay
D07	Mmu.8758	XM_002802530	LOC698160	protein-like	PPQ69016A
D08	Mmu.1984	XM_015130909	RHOA	Ras homolog family member A	PPQ09408A
D09	Mmu.26644	XM_001100468	LOC708606	Protein FADD-like	PPQ10827B
D10	Mmu.27783	XM_015144972	TNFRSF10B	TNF receptor superfamily member 10b	PPQ16015B
D11	N/A	XM_001118826	LOC722713	ELK1, member of ETS oncogene family	PPQ19728A
D12	Mmu.10857	NM_001047148	LTA	Lymphotoxin alpha (TNF superfamily, member 1)	PPQ15229B
E01	Mmu.20240	XM_001103746	LTBR	Lymphotoxin beta receptor (TNFR superfamily, member 3)	PPQ13342C
E02	Mmu.25765	XM_001086151	MALT1	Mucosa associated lymphoid tissue lymphoma translocation gene 1	PPQ02631A
E03	Mmu.9865	XM_002804368	MAP3K1	Mitogen-activated protein kinase kinase kinase 1, E3 ubiquitin protein ligase	PPQ69112A
E04	Mmu.17494	NM_001130681	MYD88	Myeloid differentiation primary response gene (88)	PPQ02736C
E05	Mmu.3512	XM_001109277	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	PPQ11928B
E06	Mmu.21046	XM_001104566	NFKB2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	PPQ14743A
E07	Mmu.12474	XM_001087842	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	PPQ01904B
E08	Mmu.28947	XM_002808387	NFKBIE	NF-kappa-B inhibitor epsilon-like	PPQ06781B
E09	Mmu.10897	XM_001085719	NOD1	Nucleotide-binding oligomerization domain containing 1	PPQ02138B
E10	Mmu.27593	XM_001099459	PLAU	Plasminogen activator, urokinase	PPQ09010A
E11	Mmu.2405	XM_001110685	PSIP1	Lens epithelium-derived growth factor	PPQ00356A
E12	Mmu.9777	XM_001086154	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1	PPQ01482B
F01	Mmu.26776	XM_001115312	REL	V-rel reticuloendotheliosis viral oncogene homolog (avian)	PPQ16755B
F02	Mmu.12145	XM_001113258	RELA	V-rel reticuloendotheliosis viral oncogene homolog A (avian)	PPQ15551A
F03	Mmu.25473	XM_001104559	RELB	V-rel reticuloendotheliosis viral oncogene homolog B	PPQ14737B
F04	Mmu.22220	XM_001091986	RIPK1	Receptor (TNFRSF)-interacting serine-threonine kinase 1	PPQ10424B
F05	Mmu.3514	XM_002799015	STAT1	Signal transducer and activator of transcription 1, 91kDa	PPQ68779B
F06	Mmu.13968	XM_001087826	STX11	Syntaxin 11	PPQ04928A
F07	Mmu.21677	XM_001116924	TBK1	TANK-binding kinase 1	PPQ16518B
F08	Mmu.3854	NM_001130428	TICAM1	Toll-like receptor adaptor molecule 1	PPQ00191B
F09	Mmu.21979	XM_001092116	TIFA	TRAF-interacting protein with FHA domain-containing protein A-like	PPQ05689A
F10	Mmu.3563	NM_001032939	TIMP1	TIMP metalloproteinase inhibitor 1	PPQ00244A
F11	Mmu.4217	NM_001130424	TLR1	Toll-like receptor 1	PPQ00186B
F12	Mmu.3812	NM_001130425	TLR2	Toll-like receptor 2	PPQ00187B
G01	Mmu.3813	NM_001036685	TLR3	Toll-like receptor 3	PPQ00273A
G02	Mmu.3527	NM_001037092	TLR4	Toll-like receptor 4	PPQ68780A
G03	Mmu.3816	NM_001130430	TLR6	Toll-like receptor 6	PPQ00238B
G04	Mmu.3819	NM_001130431	TLR9	Toll-like receptor 9	PPQ00287B
G05	Mmu.3364	NM_001047149	TNF	Tumor necrosis factor	PPQ15261B
G06	Mmu.20794	XM_001096457	TNFAIP3	Tumor necrosis factor, alpha-induced protein 3	PPQ07875B
G07	Mmu.27782	XM_001107790	TNFRSF10A	Tumor necrosis factor receptor superfamily, member 10a	PPQ16130B
G08	Mmu.20674	XM_001118232	TNFRSF1A	Tumor necrosis factor receptor superfamily, member 1A	PPQ19344B
G09	Mmu.1012	XM_001084768	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10	PPQ01300B
G10	Mmu.18775	NM_001194792	TRAF2	TNF receptor-associated factor 2	PPQ69126A
G11	Mmu.1370	XM_001082535	TRAF3	TNF receptor-associated factor 3	PPQ00956B
G12	Mmu.17706	NM_001135796	TRAF6	TNF receptor-associated factor 6	PPQ16183B
H01	Mmu.11089	NM_001033084	ACTB	Actin, beta	PPQ00182A
H02	Mmu.5037	NM_001047137	B2M	Beta-2-microglobulin	PPQ13262B
H03	Mmu.3145	NM_001195426	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	PPQ00249A
H04	Mmu.12316	XM_001097691	LOC709186	Hypoxanthine-guanine phosphoribosyltransferase-like	PPQ11206B
H05	Mmu.2512	XM_001115079	RPL13A	Ribosomal protein L13A	PPQ00210B
H06	N/A	SA_00125	QGDC	Rhesus Macaque Genomic DNA Contamination	PPQ66718A
H07	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H08	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H09	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H10	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H11	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H12	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A

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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