

RT² Profiler PCR Array (Rotor-Gene® Format)

Rhesus Macaque NFκB Signaling Pathway

Cat. no. 330231 PAQQ-025ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

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 the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

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.



Sample & Assay Technologies

Array layout

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc™ (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

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
D07	Mmu.8758	XM_002802530	LOC698160	Tumor necrosis factor receptor type 1-associated DEATH domain 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
				Nuclear factor of kappa light polypeptide gene enhancer in B-cells	

Position	UniGene	GenBank	Symbol	Description	Assay
E05	Mmu.3512	XM_001109277	NFKB1	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	PPQ19048
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 ROX [™] FAST Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers	330620

* 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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