

# RT<sup>2</sup> Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

## Mouse NFκB Signaling Pathway

Cat. no. 330231 PAMM-025ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> 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 <sup>2</sup> Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT <sup>2</sup> Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT <sup>2</sup> Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT <sup>2</sup> Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT <sup>2</sup> Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT <sup>2</sup> Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

## Description

The Mouse NFκB Signaling Pathway RT<sup>2</sup> 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. Using real-time PCR, you 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 *RT<sup>2</sup> Profiler PCR Array Handbook*.

## Shipping and storage

RT<sup>2</sup> 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. RT<sup>2</sup> 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 RT<sup>2</sup> Profiler PCR Array format for your real-time cycler (see table above).

**Note:** Open the package and store the products appropriately immediately on receipt.

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## Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT<sup>2</sup> Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Agf	Akt1	Afl1	Afl2	Bcl10	Bcl2a1a	Bcl2l1	Bcl3	Birc3	Card10	Card11	Casp1
<b>B</b>	Casp8	Ccl2	Ccl5	Cd27	Cd40	Cflar	Chuk	Crebbp	Csf1	Csf2	Csf3	Egfr
<b>C</b>	Egr1	Eif2ak2	Elk1	F2r	Fadd	Fasl	Fos	Hmox1	Icam1	Ifng	Ikbkb	Ikbke
<b>D</b>	Ikbkg	Il10	Il1a	Il1b	Il1r1	Irak1	Irak2	Irf1	Jun	Lta	Ltbr	Map3k1
<b>E</b>	Mapk3	Myd88	Nfkbl	Nfkb2	Nfkbia	Nod1	Raf1	Rel	Rela	Relb	Ripk1	Ripk2
<b>F</b>	Slc20a1	Smad3	Stat1	Tbk1	Tlr1	Tlr2	Tlr3	Tlr4	Tlr6	Tlr9	Tnf	Tnfrsf3
<b>G</b>	Tnfrsf10b	Tnfrsf1a	Tnfrsf1b	Tnfrsf10	Tnfrsf14	Tollip	Tradd	Traf2	Traf3	Traf5	Traf6	Zap70
<b>H</b>	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

## Gene table: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.301626	NM_007428	Agf	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A02	Mm.6645	NM_009652	Akt1	Thymoma viral proto-oncogene 1
A03	Mm.473546	NM_007497	Afl1	Activating transcription factor 1
A04	Mm.209903	NM_009715	Afl2	Activating transcription factor 2
A05	Mm.239141	NM_009740	Bcl10	B-cell leukemia/lymphoma 10
A06	Mm.425593	NM_009742	Bcl2a1a	B-cell leukemia/lymphoma 2 related protein A1a
A07	Mm.238213	NM_009743	Bcl2l1	Bcl2-like 1
A08	Mm.439658	NM_033601	Bcl3	B-cell leukemia/lymphoma 3
A09	Mm.2026	NM_007464	Birc3	Baculoviral IAP repeat-containing 3
A10	Mm.17629	NM_130859	Card10	Caspase recruitment domain family, member 10
A11	Mm.46187	NM_175362	Card11	Caspase recruitment domain family, member 11
A12	Mm.1051	NM_009807	Casp1	Caspase 1
B01	Mm.336851	NM_009812	Casp8	Caspase 8
B02	Mm.290320	NM_011333	Ccl2	Chemokine (C-C motif) ligand 2
B03	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
B04	Mm.367714	NM_001033126	Cd27	CD27 antigen
B05	Mm.271833	NM_011611	Cd40	CD40 antigen
B06	Mm.336848	NM_009805	Cflar	CASP8 and FADD-like apoptosis regulator
B07	Mm.3996	NM_007700	Chuk	Conserved helix-loop-helix ubiquitous kinase
B08	Mm.132238	NM_001025432	Crebbp	CREB binding protein
B09	Mm.795	NM_007778	Csf1	Colony stimulating factor 1 (macrophage)
B10	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B11	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
B12	Mm.8534	NM_007912	Egfr	Epidermal growth factor receptor
C01	Mm.181959	NM_007913	Egr1	Early growth response 1
C02	Mm.378990	NM_011163	Eif2ak2	Eukaryotic translation initiation factor 2-alpha kinase 2
C03	Mm.405823	NM_007922	Elk1	ELK1, member of ETS oncogene family
C04	Mm.24816	NM_010169	F2r	Coagulation factor II (thrombin) receptor
C05	Mm.5126	NM_010175	Fadd	Fas (TNFRSF6)-associated via death domain
C06	Mm.3355	NM_010177	Fasl	Fas ligand (TNF superfamily, member 6)
C07	Mm.246513	NM_010234	Fos	FBJ osteosarcoma oncogene
C08	Mm.276389	NM_010442	Hmox1	Heme oxygenase (decycling) 1
C09	Mm.435508	NM_010493	Icam1	Intercellular adhesion molecule 1
C10	Mm.240327	NM_008337	Ifng	Interferon gamma
C11	Mm.277886	NM_010546	Ikbkb	Inhibitor of kappaB kinase beta
C12	Mm.386783	NM_019777	Ikbke	Inhibitor of kappaB kinase epsilon
D01	Mm.12967	NM_010547	Ikbkg	Inhibitor of kappaB kinase gamma
D02	Mm.874	NM_010548	Il10	Interleukin 10
D03	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
D04	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D05	Mm.896	NM_008362	Il1r1	Interleukin 1 receptor, type I
D06	Mm.38241	NM_008363	Irak1	Interleukin-1 receptor-associated kinase 1
D07	Mm.152142	NM_172161	Irak2	Interleukin-1 receptor-associated kinase 2
D08	Mm.105218	NM_008390	Irf1	Interferon regulatory factor 1
D09	Mm.275071	NM_010591	Jun	Jun oncogene

Position	UniGene	GenBank	Symbol	Description
D10	Mm.87787	NM_010735	Lta	Lymphotoxin A
D11	Mm.3122	NM_010736	Ltbr	Lymphotoxin B receptor
D12	Mm.15918	NM_011945	Map3k1	Mitogen-activated protein kinase kinase kinase 1
E01	Mm.8385	NM_011952	Mapk3	Mitogen-activated protein kinase 3
E02	Mm.213003	NM_010851	Myd88	Myeloid differentiation primary response gene 88
E03	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E04	Mm.102365	NM_019408	Nfkb2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, p49/p100
E05	Mm.170515	NM_010907	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E06	Mm.28498	NM_172729	Nod1	Nucleotide-binding oligomerization domain containing 1
E07	Mm.184163	NM_029780	Raf1	V-raf-leukemia viral oncogene 1
E08	Mm.4869	NM_009044	Rel	Reticuloendotheliosis oncogene
E09	Mm.249966	NM_009045	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
E10	Mm.1741	NM_009046	Relb	Avian reticuloendotheliosis viral (v-rel) oncogene related B
E11	Mm.374799	NM_009068	Ripk1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
E12	Mm.112765	NM_138952	Ripk2	Receptor (TNFRSF)-interacting serine-threonine kinase 2
F01	Mm.272675	NM_015747	Slc20a1	Solute carrier family 20, member 1
F02	Mm.7320	NM_016769	Smad3	MAD homolog 3 (Drosophila)
F03	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
F04	Mm.34580	NM_019786	Tbk1	TANK-binding kinase 1
F05	Mm.273024	NM_030682	Tlr1	Toll-like receptor 1
F06	Mm.87596	NM_011905	Tlr2	Toll-like receptor 2
F07	Mm.33874	NM_126166	Tlr3	Toll-like receptor 3
F08	Mm.38049	NM_021297	Tlr4	Toll-like receptor 4
F09	Mm.42146	NM_011604	Tlr6	Toll-like receptor 6
F10	Mm.44889	NM_031178	Tlr9	Toll-like receptor 9
F11	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
F12	Mm.116683	NM_009397	Tnfaip3	Tumor necrosis factor, alpha-induced protein 3
G01	Mm.193430	NM_020275	Tnfrsf10b	Tumor necrosis factor receptor superfamily, member 10b
G02	Mm.1258	NM_011609	Tnfrsf1a	Tumor necrosis factor receptor superfamily, member 1a
G03	Mm.235328	NM_011610	Tnfrsf1b	Tumor necrosis factor receptor superfamily, member 1b
G04	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G05	Mm.483369	NM_019418	Tnfsf14	Tumor necrosis factor (ligand) superfamily, member 14
G06	Mm.103551	NM_023764	Tollip	Toll interacting protein
G07	Mm.264255	NM_001033161	Tradd	TNFRSF1A-associated via death domain
G08	Mm.3399	NM_009422	Traf2	Tnf receptor-associated factor 2
G09	Mm.27431	NM_011632	Traf3	Tnf receptor-associated factor 3
G10	Mm.380491	NM_011633	Traf5	Tnf receptor-associated factor 5
G11	Mm.292729	NM_009424	Traf6	Tnf receptor-associated factor 6
G12	Mm.8038	NM_009539	Zap70	Zeta-chain (TCR) associated protein kinase
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> 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 <sup>2</sup> 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 <sup>2</sup> 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.

RT<sup>2</sup> 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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