

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

Rat NFkB Signaling Pathway

Cat. no. 330231 PARN-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 Rat 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. 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 *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	Agf	Akt1	Aif1	Aif2	Bcl10	Bcl2a1d	Bcl2l1	Bcl3	Birc3	Card10	Card11	Casp1
B	Casp8	Ccl2	Ccl5	Cd40	Cflar	Chuk	Crebbp	Csf1	Csf2	Csf3	Egfr	Egr1
C	Eif2ak2	F2r	Fadd	Faslg	Fos	Hmx1	Icam1	Ifna1	Ifng	Ikbb	Ikke	Ikbkg
D	Il10	Il1a	Il1b	Il1r1	Irak1	Irak2	Irak4	Irf1	Jun	LOC687813	Lta	Ltbr
E	Map2k3	Map3k1	Mapk3	Myd88	Nfkb1	Nfkb2	Nfkbia	Pcaf	Paip1	Raf1	Rel	Rela
F	Ripk1	Ripk2	Smad4	Stat1	Tbk1	Timp1	Tlr1	Tlr2	Tlr3	Tlr4	Tlr6	Tlr9
G	Tnf	Tnfrsf10b	Tnfrsf1a	Tnfrsf1b	Tnfrsf10	Tnfrsf14	Tollip	Tradd	Traf2	Traf3	Traf6	Zap70
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.6319	NM_134432	Agf	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A02	Rn.11422	NM_033230	Akt1	V-akt murine thymoma viral oncogene homolog 1
A03	Rn.105304	NM_001100895	Aif1	Activating transcription factor 1
A04	Rn.9825	NM_031018	Aif2	Activating transcription factor 2
A05	Rn.13007	NM_031328	Bcl10	B-cell CLL/lymphoma 10
A06	Rn.19770	NM_133416	Bcl2a1d	B-cell leukemia/lymphoma 2 related protein A1d
A07	Rn.10323	NM_031535	Bcl2l1	Bcl2-like 1
A08	Rn.23000	NM_001109422	Bcl3	B-cell CLL/lymphoma 3
A09	Rn.64578	NM_023987	Birc3	Baculoviral IAP repeat-containing 3
A10	Rn.138066	NM_001130554	Card10	Caspase recruitment domain family, member 10
A11	Rn.7904	XM_001073551	Card11	Caspase recruitment domain family, member 11
A12	Rn.37508	NM_012762	Casp1	Caspase 1
B01	Rn.54474	NM_022277	Casp8	Caspase 8
B02	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
B03	Rn.8019	NM_031116	Ccl5	Chemokine (C-C motif) ligand 5
B04	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
B05	Rn.204752	NM_057138	Cflar	CASP8 and FADD-like apoptosis regulator
B06	Rn.23019	NM_001107588	Chuk	Conserved helix-loop-helix ubiquitous kinase
B07	Rn.108128	NM_133381	Crebbp	CREB binding protein
B08	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
B09	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B10	Rn.53973	NM_017104	Csf3	Colony stimulating factor 3 (granulocyte)
B11	Rn.37227	NM_031507	Egfr	Epidermal growth factor receptor
B12	Rn.9096	NM_012551	Egr1	Early growth response 1
C01	Rn.10022	NM_019335	Eif2ak2	Eukaryotic translation initiation factor 2-alpha kinase 2
C02	Rn.2609	NM_012950	F2r	Coagulation factor II (thrombin) receptor
C03	Rn.16183	NM_152937	Fadd	Fas (TNFRSF6)-associated via death domain
C04	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
C05	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
C06	Rn.3160	NM_012580	Hmx1	Heme oxygenase (decycling) 1
C07	Rn.12	NM_012967	Icam1	Intercellular adhesion molecule 1
C08	Rn.196548	NM_001014786	Ifna1	Interferon-alpha 1
C09	Rn.10795	NM_138880	Ifng	Interferon gamma
C10	Rn.19222	NM_053355	Ikbb	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
C11	Rn.18567	NM_001108854	Ikke	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon
C12	Rn.214715	NM_199103	Ikbkg	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
D01	Rn.9868	NM_012854	Il10	Interleukin 10
D02	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
D03	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
D04	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type I
D05	Rn.22238	NM_001127555	Irak1	Interleukin-1 receptor-associated kinase 1
D06	Rn.17123	NM_001025422	Irak2	Interleukin-1 receptor-associated kinase 2
D07	Rn.61427	NM_001106791	Irak4	Interleukin-1 receptor-associated kinase 4
D08	Rn.6396	NM_012591	Irf1	Interferon regulatory factor 1
D09	Rn.93714	NM_021835	Jun	Jun oncogene

Position	UniGene	GenBank	Symbol	Description
D10	Rn.136874	XM_001080233	LOC687813	Similar to Tnf receptor-associated factor 1
D11	Rn.160577	NM_080769	Lta	Lymphotoxin alpha (TNF superfamily, member 1)
D12	Rn.19329	NM_001008315	Ltbr	Lymphotoxin beta receptor (TNFR superfamily, member 3)
E01	Rn.100064	NM_001100674	Map2k3	Mitogen activated protein kinase kinase 3
E02	Rn.11081	NM_053887	Map3k1	Mitogen activated protein kinase kinase kinase 1
E03	Rn.2592	NM_017347	Mapk3	Mitogen activated protein kinase 3
E04	Rn.37341	NM_198130	Myd88	Myeloid differentiation primary response gene 88
E05	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E06	Rn.204814	NM_001008349	Nfkb2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, p49/p100
E07	Rn.12550	NM_001105720	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E08	Rn.4126	NM_001024252	Pcaf	P300/CBP-associated factor
E09	Rn.93075	NM_175765	Psip1	PC4 and SFRS1 interacting protein 1
E10	Rn.33262	NM_012639	Raf1	V-raf-leukemia viral oncogene 1
E11	Rn.106948	XM_223688	Rel	V-rel reticuloendotheliosis viral oncogene homolog (avian)
E12	Rn.19480	NM_199267	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F01	Rn.7572	NM_001107350	Ripk1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
F02	Rn.102179	XM_342810	Ripk2	Receptor-interacting serine-threonine kinase 2
F03	Rn.9774	NM_019275	Smad4	SMAD family member 4
F04	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
F05	Rn.30683	NM_001106786	Tbk1	TANK-binding kinase 1
F06	Rn.25754	NM_053819	Timp1	TIMP metalloproteinase inhibitor 1
F07	Rn.107212	NM_001172120	Tlr1	Toll-like receptor 1
F08	Rn.46387	NM_198769	Tlr2	Toll-like receptor 2
F09	Rn.15273	NM_198791	Tlr3	Toll-like receptor 3
F10	Rn.14534	NM_019178	Tlr4	Toll-like receptor 4
F11	Rn.163249	NM_207604	Tlr6	Toll-like receptor 6
F12	Rn.92495	NM_198131	Tlr9	Toll-like receptor 9
G01	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G02	Rn.105558	NM_001108873	Tnfrsf10b	Tumor necrosis factor receptor superfamily, member 10b
G03	Rn.11119	NM_013091	Tnfrsf1a	Tumor necrosis factor receptor superfamily, member 1a
G04	Rn.83633	NM_130426	Tnfrsf1b	Tumor necrosis factor receptor superfamily, member 1b
G05	Rn.83627	NM_145681	Tnfrsf10	Tumor necrosis factor (ligand) superfamily, member 10
G06	N/A	XM_236794	Tnfrsf14	Tumor necrosis factor (ligand) superfamily, member 14
G07	Rn.137040	NM_001109668	Tollip	Toll interacting protein
G08	Rn.18545	NM_001100480	Tradd	TNFRSF1A-associated via death domain
G09	Rn.105232	NM_001107815	Traf2	Tnf receptor-associated factor 2
G10	Rn.12033	NM_001108724	Traf3	Tnf receptor-associated factor 3
G11	Rn.220435	NM_001107754	Traf6	Tnf receptor-associated factor 6
G12	Rn.17862	NM_001012002	Zap70	Zeta-chain (TCR) associated protein kinase
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

China ■ 8621-3865-3865

Denmark ■ 80-885945

Finland ■ 0800-914416

France ■ 01-60-920-930

Germany ■ 02103-29-12000

Hong Kong ■ 800 933 965

Ireland ■ 1800 555 049

Italy ■ 800-787980

Japan ■ 03-6890-7300

Korea (South) ■ 080-000-7145

Luxembourg ■ 8002 2076

Mexico ■ 01-800-7742-436

The Netherlands ■ 0800 0229592

Norway ■ 800-18859

Singapore ■ 1800-742-4368

Spain ■ 91-630-7050

Sweden ■ 020-790282

Switzerland ■ 055-254-22-11

UK ■ 01293-422-911

USA ■ 800-426-8157

Australia ■ 1-800-243-800

Austria ■ 0800/281010

Belgium ■ 0800-79612

Brazil ■ 0800-557779



Sample & Assay Technologies