

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

Human NFkB Signaling Pathway

Cat. no. 330231 PAHS-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 Human 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	AGT	AKT1	ATF1	BCL10	BCL2A1	BCL2L1	BCL3	BIRC2	BIRC3	CARD11	CASP1	CASP8
B	CCL2	CCL5	CD27	CD40	CFLAR	CHUK	CSF1	CSF2	CSF3	EGFR	EGR1	ELK1
C	F2R	FADD	FASLG	FOS	HMOX1	ICAM1	IFNA1	IFNG	IKKB	IKBKE	IKBKG	IL10
D	IL1A	IL1B	IL1R1	IL8	IRAK1	IRAK2	IRF1	JUN	LTA	LTBR	MALT1	MAP3K1
E	MYD88	NFKB1	NFKB2	NFKBIA	NFKBIB	NFKBIE	NOD1	PSIP1	RAF1	REL	RELA	RELB
F	RHOA	RIPK1	STAT1	TBK1	TICAM1	TICAM2	TIMP1	TLR1	TLR2	TLR3	TLR4	TLR6
G	TLR9	TNF	TNFAIP3	TNFRSF10A	TNFRSF10B	TNFRSF1A	TNFSF10	TNFSF14	TRADD	TRAF2	TRAF3	TRAF6
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.19383	NM_000029	AGT	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A02	Hs.525622	NM_005163	AKT1	V-akt murine thymoma viral oncogene homolog 1
A03	Hs.648565	NM_005171	ATF1	Activating transcription factor 1
A04	Hs.193516	NM_003921	BCL10	B-cell CLL/lymphoma 10
A05	Hs.227817	NM_004049	BCL2A1	BCL2-related protein A1
A06	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
A07	Hs.31210	NM_005178	BCL3	B-cell CLL/lymphoma 3
A08	Hs.696238	NM_001166	BIRC2	Baculoviral IAP repeat containing 2
A09	Hs.127799	NM_001165	BIRC3	Baculoviral IAP repeat containing 3
A10	Hs.648101	NM_032415	CARD11	Caspase recruitment domain family, member 11
A11	Hs.2490	NM_033292	CASP1	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
A12	Hs.599762	NM_001228	CASP8	Caspase 8, apoptosis-related cysteine peptidase
B01	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
B02	Hs.514821	NM_002985	CCL5	Chemokine (C-C motif) ligand 5
B03	Hs.355307	NM_001242	CD27	CD27 molecule
B04	Hs.472860	NM_001250	CD40	CD40 molecule, TNF receptor superfamily member 5
B05	Hs.390736	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator
B06	Hs.198998	NM_001278	CHUK	Conserved helix-loop-helix ubiquitous kinase
B07	Hs.591402	NM_000757	CSF1	Colony stimulating factor 1 (macrophage)
B08	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B09	Hs.2233	NM_000759	CSF3	Colony stimulating factor 3 (granulocyte)
B10	Hs.488293	NM_005228	EGFR	Epidermal growth factor receptor
B11	Hs.326035	NM_001964	EGR1	Early growth response 1
B12	Hs.181128	NM_005229	ELK1	ELK1, member of ETS oncogene family
C01	Hs.482562	NM_001992	F2R	Coagulation factor II (thrombin) receptor
C02	Hs.86131	NM_003824	FADD	Fas (TNFRSF6)-associated via death domain
C03	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
C04	Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
C05	Hs.517581	NM_002133	HMOX1	Heme oxygenase (decycling) 1
C06	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
C07	Hs.37026	NM_024013	IFNA1	Interferon, alpha 1
C08	Hs.856	NM_000619	IFNG	Interferon, gamma
C09	Hs.597664	NM_001556	IKKB	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
C10	Hs.321045	NM_014002	IKBKE	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon
C11	Hs.43505	NM_003639	IKBKG	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
C12	Hs.193717	NM_000572	IL10	Interleukin 10
D01	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
D02	Hs.126256	NM_000576	IL1B	Interleukin 1, beta
D03	Hs.701982	NM_000877	IL1R1	Interleukin 1 receptor, type I
D04	Hs.624	NM_000584	IL8	Interleukin 8
D05	Hs.522819	NM_001569	IRAK1	Interleukin-1 receptor-associated kinase 1
D06	Hs.449207	NM_001570	IRAK2	Interleukin-1 receptor-associated kinase 2
D07	Hs.436061	NM_002198	IRF1	Interferon regulatory factor 1
D08	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D09	Hs.36	NM_000595	LTA	Lymphotoxin alpha (TNF superfamily, member 1)

Position	UniGene	GenBank	Symbol	Description
D10	Hs.11116	NM_002342	LTBR	Lymphotoxin beta receptor (TNFR superfamily, member 3)
D11	Hs.601217	NM_173844	MALT1	Mucosa associated lymphoid tissue lymphoma translocation gene 1
D12	Hs.657756	NM_005921	MAP3K1	Mitogen-activated protein kinase kinase kinase 1
E01	Hs.82116	NM_002468	MYD88	Myeloid differentiation primary response gene (88)
E02	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E03	Hs.73090	NM_002502	NFKB2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)
E04	Hs.81328	NM_020529	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E05	Hs.9731	NM_002503	NFKBIB	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, beta
E06	Hs.458276	NM_004556	NFKBIE	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon
E07	Hs.405153	NM_006092	NOD1	Nucleotide-binding oligomerization domain containing 1
E08	Hs.658434	NM_021144	PSIP1	PC4 and SFRS1 interacting protein 1
E09	Hs.159130	NM_002880	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1
E10	Hs.631886	NM_002908	REL	V-rel reticuloendotheliosis viral oncogene homolog (avian)
E11	Hs.502875	NM_021975	RELA	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
E12	Hs.654402	NM_006509	RELB	V-rel reticuloendotheliosis viral oncogene homolog B
F01	Hs.247077	NM_001664	RHOA	Ras homolog gene family, member A
F02	Hs.519842	NM_003804	RIPK1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
F03	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
F04	Hs.505874	NM_013254	TBK1	TANK-binding kinase 1
F05	Hs.29344	NM_182919	TICAM1	Toll-like receptor adaptor molecule 1
F06	Hs.710895	NM_021649	TICAM2	Toll-like receptor adaptor molecule 2
F07	Hs.522632	NM_003254	TIMP1	TIMP metalloproteinase inhibitor 1
F08	Hs.654532	NM_003263	TLR1	Toll-like receptor 1
F09	Hs.519033	NM_003264	TLR2	Toll-like receptor 2
F10	Hs.657724	NM_003265	TLR3	Toll-like receptor 3
F11	Hs.174312	NM_138554	TLR4	Toll-like receptor 4
F12	Hs.662185	NM_006068	TLR6	Toll-like receptor 6
G01	Hs.87968	NM_017442	TLR9	Toll-like receptor 9
G02	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G03	Hs.211600	NM_006290	TNFAIP3	Tumor necrosis factor, alpha-induced protein 3
G04	Hs.591834	NM_003844	TNFRSF10A	Tumor necrosis factor receptor superfamily, member 10a
G05	Hs.521456	NM_003842	TNFRSF10B	Tumor necrosis factor receptor superfamily, member 10b
G06	Hs.279594	NM_001065	TNFRSF1A	Tumor necrosis factor receptor superfamily, member 1A
G07	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G08	Hs.129708	NM_003807	TNFSF14	Tumor necrosis factor (ligand) superfamily, member 14
G09	Hs.460996	NM_003789	TRADD	TNFRSF1A-associated via death domain
G10	Hs.522506	NM_021138	TRAF2	TNF receptor-associated factor 2
G11	Hs.510528	NM_003300	TRAF3	TNF receptor-associated factor 3
G12	Hs.591983	NM_004620	TRAF6	TNF receptor-associated factor 6
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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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