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

Human TNF Signaling Pathway

Cat. no. 330231 PAHS-063ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² 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
RT² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT² Profiler PCR Array, Format H	Fluidigm® BioMark™

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Description

The Human TNF Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes whose expression is controlled by or involved in the TNF ligand and TNF receptor signaling pathways. Members of the TNF Superfamily and TNF Receptor Superfamily are represented on this array. Genes involved in the TNFR1 and TNFR2 Signaling Pathways are also included. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the TNF signaling 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	AGFG1	ARHGDIB	BAG4	CAD	CASP2	CASP3	CASP8	CD27	CD40	CD40LG	CD70	CHUK
B	CRADD	DFFA	DUSP1	EDA2R	FADD	FAS	FASLG	IKBKAP	IKBKB	IKBKG	JUN	LMNA
C	LMNB1	LMNB2	LTA	LTB	LTBR	MADD	MAP2K4	MAP3K1	MAP3K7	MAPK8	NFKB1	NFKBIA
D	NGFR	PAK1	PAK2	PARP1	PGLYRP1	PRKDC	PSMG2	RB1	RELT	SPTAN1	TNF	TNFAIP3
E	TNFRSF10A	TNFRSF10B	TNFRSF10C	TNFRSF10D	TNFRSF11A	TNFRSF11B	TNFRSF12A	TNFRSF13B	TNFRSF13C	TNFRSF14	TNFRSF17	TNFRSF18
F	TNFRSF19	TNFRSF1A	TNFRSF1B	TNFRSF21	TNFRSF25	TNFRSF4	TNFRSF6B	TNFRSF8	TNFRSF9	TNFSF10	TNFSF11	TNFSF12
G	TNFSF13	TNFSF13B	TNFSF14	TNFSF15	TNFSF18	TNFSF4	TNFSF8	TNFSF9	TRADD	TRAF1	TRAF2	TRAF3
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.352962	NM_004504	AGFG1	ArfGAP with FG repeats 1
A02	Hs.504877	NM_001175	ARHGDIB	Rho GDP dissociation inhibitor (GDI) beta
A03	Hs.194726	NM_004874	BAG4	BCL2-associated athanogene 4
A04	Hs.377010	NM_004341	CAD	Carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase
A05	Hs.368982	NM_032982	CASP2	Caspase 2, apoptosis-related cysteine peptidase
A06	Hs.141125	NM_004346	CASP3	Caspase 3, apoptosis-related cysteine peptidase
A07	Hs.599762	NM_001228	CASP8	Caspase 8, apoptosis-related cysteine peptidase
A08	Hs.355307	NM_001242	CD27	CD27 molecule
A09	Hs.472860	NM_001250	CD40	CD40 molecule, TNF receptor superfamily member 5
A10	Hs.592244	NM_000074	CD40LG	CD40 ligand
A11	Hs.501497	NM_001252	CD70	CD70 molecule
A12	Hs.198998	NM_001278	CHUK	Conserved helix-loop-helix ubiquitous kinase
B01	Hs.38533	NM_003805	CRADD	CASP2 and RIPK1 domain containing adaptor with death domain
B02	Hs.484782	NM_004401	DFFA	DNA fragmentation factor, 45kDa, alpha polypeptide
B03	Hs.171695	NM_004417	DUSP1	Dual specificity phosphatase 1
B04	Hs.302017	NM_021783	EDA2R	Ectodysplasin A2 receptor
B05	Hs.86131	NM_003824	FADD	Fas (TNFRSF6)-associated via death domain
B06	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
B07	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
B08	Hs.494738	NM_003640	IKBKAP	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein
B09	Hs.597664	NM_001556	IKBKB	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
B10	Hs.43505	NM_003639	IKBKG	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
B11	Hs.714791	NM_002228	JUN	Jun proto-oncogene
B12	Hs.594444	NM_005572	LMNA	Lamin A/C
C01	Hs.89497	NM_005573	LMNB1	Lamin B1
C02	Hs.728836	NM_032737	LMNB2	Lamin B2
C03	Hs.36	NM_000595	LTA	Lymphotoxin alpha (TNF superfamily, member 1)
C04	Hs.376208	NM_002341	LTB	Lymphotoxin beta (TNF superfamily, member 3)
C05	Hs.1116	NM_002342	LTBR	Lymphotoxin beta receptor (TNFR superfamily, member 3)
C06	Hs.82548	NM_003682	MADD	MAP-kinase activating death domain
C07	Hs.514681	NM_003010	MAP2K4	Mitogen-activated protein kinase kinase 4
C08	Hs.657756	NM_005921	MAP3K1	Mitogen-activated protein kinase kinase kinase 1
C09	Hs.644143	NM_003188	MAP3K7	Mitogen-activated protein kinase kinase kinase 7
C10	Hs.138211	NM_002750	MAPK8	Mitogen-activated protein kinase 8
C11	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
C12	Hs.81328	NM_020529	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
D01	Hs.415768	NM_002507	NGFR	Nerve growth factor receptor
D02	Hs.435714	NM_002576	PAK1	P21 protein (Cdc42/Rac)-activated kinase 1
D03	Hs.518530	NM_002577	PAK2	P21 protein (Cdc42/Rac)-activated kinase 2
D04	Hs.177766	NM_001618	PARP1	Poly (ADP-ribose) polymerase 1
D05	Hs.137583	NM_005091	PGLYRP1	Peptidoglycan recognition protein 1
D06	Hs.491682	NM_006904	PRKDC	Protein kinase, DNA-activated, catalytic polypeptide

Position	UniGene	GenBank	Symbol	Description
D07	Hs.464652	NM_020232	PSMG2	Proteasome (prosome, macropain) assembly chaperone 2
D08	Hs.408528	NM_000321	RB1	Retinoblastoma 1
D09	Hs.533720	NM_032871	RELT	RELT tumor necrosis factor receptor
D10	Hs.372331	NM_003127	SPTAN1	Spectrin, alpha, non-erythrocytic 1 (alpha-fodrin)
D11	Hs.241570	NM_000594	TNF	Tumor necrosis factor
D12	Hs.211600	NM_006290	TNFAIP3	Tumor necrosis factor, alpha-induced protein 3
E01	Hs.591834	NM_003844	TNFRSF10A	Tumor necrosis factor receptor superfamily, member 10a
E02	Hs.521456	NM_003842	TNFRSF10B	Tumor necrosis factor receptor superfamily, member 10b
E03	Hs.655801	NM_003841	TNFRSF10C	Tumor necrosis factor receptor superfamily, member 10c, decoy without an intracellular domain
E04	Hs.213467	NM_003840	TNFRSF10D	Tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain
E05	Hs.204044	NM_003839	TNFRSF11A	Tumor necrosis factor receptor superfamily, member 11a, NFKB activator
E06	Hs.81791	NM_002546	TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b
E07	Hs.355899	NM_016639	TNFRSF12A	Tumor necrosis factor receptor superfamily, member 12A
E08	Hs.158341	NM_012452	TNFRSF13B	Tumor necrosis factor receptor superfamily, member 13B
E09	Hs.344088	NM_052945	TNFRSF13C	Tumor necrosis factor receptor superfamily, member 13C
E10	Hs.512898	NM_003820	TNFRSF14	Tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator)
E11	Hs.2556	NM_001192	TNFRSF17	Tumor necrosis factor receptor superfamily, member 17
E12	Hs.212680	NM_004195	TNFRSF18	Tumor necrosis factor receptor superfamily, member 18
F01	Hs.149168	NM_018647	TNFRSF19	Tumor necrosis factor receptor superfamily, member 19
F02	Hs.279594	NM_001065	TNFRSF1A	Tumor necrosis factor receptor superfamily, member 1A
F03	Hs.256278	NM_001066	TNFRSF1B	Tumor necrosis factor receptor superfamily, member 1B
F04	Hs.443577	NM_014452	TNFRSF21	Tumor necrosis factor receptor superfamily, member 21
F05	Hs.462529	NM_003790	TNFRSF25	Tumor necrosis factor receptor superfamily, member 25
F06	Hs.129780	NM_003327	TNFRSF4	Tumor necrosis factor receptor superfamily, member 4
F07	Hs.434878	NM_003823	TNFRSF6B	Tumor necrosis factor receptor superfamily, member 6b, decoy
F08	Hs.1314	NM_001243	TNFRSF8	Tumor necrosis factor receptor superfamily, member 8
F09	Hs.654459	NM_001561	TNFRSF9	Tumor necrosis factor receptor superfamily, member 9
F10	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
F11	Hs.333791	NM_003701	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11
F12	Hs.415839	NM_003809	TNFSF12	Tumor necrosis factor (ligand) superfamily, member 12
G01	Hs.54673	NM_003808	TNFSF13	Tumor necrosis factor (ligand) superfamily, member 13
G02	Hs.525157	NM_006573	TNFSF13B	Tumor necrosis factor (ligand) superfamily, member 13b
G03	Hs.129708	NM_003807	TNFSF14	Tumor necrosis factor (ligand) superfamily, member 14
G04	Hs.241382	NM_005118	TNFSF15	Tumor necrosis factor (ligand) superfamily, member 15
G05	Hs.248197	NM_005092	TNFSF18	Tumor necrosis factor (ligand) superfamily, member 18
G06	Hs.181097	NM_003326	TNFSF4	Tumor necrosis factor (ligand) superfamily, member 4
G07	Hs.654445	NM_001244	TNFSF8	Tumor necrosis factor (ligand) superfamily, member 8
G08	Hs.1524	NM_003811	TNFSF9	Tumor necrosis factor (ligand) superfamily, member 9
G09	Hs.460996	NM_003789	TRADD	TNFRSF1A-associated via death domain
G10	Hs.531251	NM_005658	TRAF1	TNF receptor-associated factor 1
G11	Hs.522506	NM_021138	TRAF2	TNF receptor-associated factor 2
G12	Hs.510528	NM_003300	TRAF3	TNF receptor-associated factor 3
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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
RT² 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
RT² 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.

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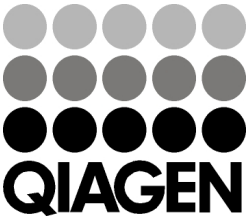

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