

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

Human Th17 Response

Cat. no. 330231 PAHS-073ZA

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 Th17 Response RT² Profiler PCR Array profiles the expression of 84 genes related to the Th17 Regulatory Network. Th17 is a newly defined subset of CD4(+) T cells that is distinct from the traditional Th1, Th2 and Treg. Th17 is highly proinflammatory and induces severe autoimmunity. This array contains surface molecules, cytokines and receptors, chemokines, matrix metalloproteinases, cell signaling molecules and transcriptional factors. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the Th17 regulatory network 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	CCL1	CCL2	CCL20	CCL22	CCL7	CCR2	CCR4	CCR6	CD28	CD34	CD4	CD40LG
B	CD8A	CEBPB	CLEC7A	CSF2	CSF3	CX3CL1	CXCL1	CXCL12	CXCL2	CXCL5	CXCL6	FOXP3
C	GATA3	ICAM1	ICOS	IFNG	IL10	IL12B	IL12RB1	IL12RB2	IL13	IL15	IL17A	IL17C
D	IL17D	IL17F	IL17RA	IL17RB	IL17RC	IL17RE	IL18	IL1B	IL1R1	IL2	IL21	IL22
E	IL23A	IL23R	IL25	IL27	IL3	IL4	IL5	IL6	IL6R	IL7R	IL8	IL9
F	IRF4	ISG20	JAK1	JAK2	MMP3	MMP9	NFATC2	NFKB1	RORA	RORC	RUNX1	S1PR1
G	SOCS1	SOCS3	STAT3	STAT4	STAT5A	STAT6	SYK	TBX21	TGFB1	TLR4	TNF	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.72918	NM_002981	CCL1	Chemokine (C-C motif) ligand 1
A02	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
A03	Hs.75498	NM_004591	CCL20	Chemokine (C-C motif) ligand 20
A04	Hs.534347	NM_002990	CCL22	Chemokine (C-C motif) ligand 22
A05	Hs.251526	NM_006273	CCL7	Chemokine (C-C motif) ligand 7
A06	Hs.511794	NM_001123396	CCR2	Chemokine (C-C motif) receptor 2
A07	Hs.184926	NM_005508	CCR4	Chemokine (C-C motif) receptor 4
A08	Hs.46468	NM_004367	CCR6	Chemokine (C-C motif) receptor 6
A09	Hs.591629	NM_006139	CD28	CD28 molecule
A10	Hs.374990	NM_001773	CD34	CD34 molecule
A11	Hs.631659	NM_000616	CD4	CD4 molecule
A12	Hs.592244	NM_000074	CD40LG	CD40 ligand
B01	Hs.85258	NM_001768	CD8A	CD8a molecule
B02	Hs.517106	NM_005194	CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
B03	Hs.143929	NM_022570	CLEC7A	C-type lectin domain family 7, member A
B04	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B05	Hs.2233	NM_000759	CSF3	Colony stimulating factor 3 (granulocyte)
B06	Hs.531668	NM_002996	CX3CL1	Chemokine (C-X3-C motif) ligand 1
B07	Hs.789	NM_001511	CXCL1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
B08	Hs.522891	NM_000609	CXCL12	Chemokine (C-X-C motif) ligand 12
B09	Hs.590921	NM_002089	CXCL2	Chemokine (C-X-C motif) ligand 2
B10	Hs.89714	NM_002994	CXCL5	Chemokine (C-X-C motif) ligand 5
B11	Hs.164021	NM_002993	CXCL6	Chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2)
B12	Hs.247700	NM_014009	FOXP3	Forkhead box P3
C01	Hs.524134	NM_002051	GATA3	GATA binding protein 3
C02	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
C03	Hs.56247	NM_012092	ICOS	Inducible T-cell co-stimulator
C04	Hs.856	NM_000619	IFNG	Interferon, gamma
C05	Hs.193717	NM_000572	IL10	Interleukin 10
C06	Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
C07	Hs.567294	NM_005535	IL12RB1	Interleukin 12 receptor, beta 1
C08	Hs.479347	NM_001559	IL12RB2	Interleukin 12 receptor, beta 2
C09	Hs.845	NM_002188	IL13	Interleukin 13
C10	Hs.654378	NM_000585	IL15	Interleukin 15
C11	Hs.41724	NM_002190	IL17A	Interleukin 17A
C12	Hs.278911	NM_013278	IL17C	Interleukin 17C
D01	Hs.655142	NM_138284	IL17D	Interleukin 17D
D02	Hs.272295	NM_052872	IL17F	Interleukin 17F
D03	Hs.129751	NM_014339	IL17RA	Interleukin 17 receptor A
D04	Hs.654970	NM_018725	IL17RB	Interleukin 17 receptor B
D05	Hs.129959	NM_032732	IL17RC	Interleukin 17 receptor C
D06	Hs.390823	NM_153480	IL17RE	Interleukin 17 receptor E
D07	Hs.83077	NM_001562	IL18	Interleukin 18 (interferon-gamma-inducing factor)
D08	Hs.126256	NM_000576	IL1B	Interleukin 1, beta

Position	UniGene	GenBank	Symbol	Description
D09	Hs.701982	NM_000877	IL1R1	Interleukin 1 receptor, type I
D10	Hs.89679	NM_000586	IL2	Interleukin 2
D11	Hs.567559	NM_021803	IL21	Interleukin 21
D12	Hs.287369	NM_020525	IL22	Interleukin 22
E01	Hs.98309	NM_016584	IL23A	Interleukin 23, alpha subunit p19
E02	Hs.677426	NM_144701	IL23R	Interleukin 23 receptor
E03	Hs.302036	NM_022789	IL25	Interleukin 25
E04	Hs.528111	NM_145659	IL27	Interleukin 27
E05	Hs.694	NM_000588	IL3	Interleukin 3 (colony-stimulating factor, multiple)
E06	Hs.73917	NM_000589	IL4	Interleukin 4
E07	Hs.2247	NM_000879	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
E08	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
E09	Hs.709210	NM_000565	IL6R	Interleukin 6 receptor
E10	Hs.591742	NM_002185	IL7R	Interleukin 7 receptor
E11	Hs.624	NM_000584	IL8	Interleukin 8
E12	Hs.960	NM_000590	IL9	Interleukin 9
F01	Hs.401013	NM_002460	IRF4	Interferon regulatory factor 4
F02	Hs.459265	NM_002201	ISG20	Interferon stimulated exonuclease gene 20kDa
F03	Hs.207538	NM_002227	JAK1	Janus kinase 1
F04	Hs.656213	NM_004972	JAK2	Janus kinase 2
F05	Hs.375129	NM_002422	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
F06	Hs.297413	NM_004994	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
F07	Hs.713650	NM_012340	NFATC2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
F08	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F09	Hs.560343	NM_134260	RORA	RAR-related orphan receptor A
F10	Hs.256022	NM_005060	RORC	RAR-related orphan receptor C
F11	Hs.149261	NM_001754	RUNX1	Runt-related transcription factor 1
F12	Hs.154210	NM_001400	S1PR1	Sphingosine-1-phosphate receptor 1
G01	Hs.50640	NM_003745	SOCS1	Suppressor of cytokine signaling 1
G02	Hs.527973	NM_003955	SOCS3	Suppressor of cytokine signaling 3
G03	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G04	Hs.80642	NM_003151	STAT4	Signal transducer and activator of transcription 4
G05	Hs.437058	NM_003152	STAT5A	Signal transducer and activator of transcription 5A
G06	Hs.524518	NM_003153	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
G07	Hs.371720	NM_003177	SYK	Spleen tyrosine kinase
G08	Hs.272409	NM_013351	TBX21	T-box 21
G09	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
G10	Hs.174312	NM_138554	TLR4	Toll-like receptor 4
G11	Hs.241570	NM_000594	TNF	Tumor necrosis factor
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.

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

Ireland ■ 1800 555 049

Norway ■ 800-18859

China ■ 8621-3865-3865

Italy ■ 800-787980

Singapore ■ 1800-742-4368

Denmark ■ 80-885945

Japan ■ 03-6890-7300

Spain ■ 91-630-7050

Australia ■ 1-800-243-800

Finland ■ 0800-914416

Korea (South) ■ 080-000-7145

Sweden ■ 020-790282

Austria ■ 0800/281010

France ■ 01-60-920-930

Luxembourg ■ 8002 2076

Switzerland ■ 055-254-22-11

Belgium ■ 0800-79612

Germany ■ 02103-29-12000

Mexico ■ 01-800-7742-436

UK ■ 01293-422-911

Brazil ■ 0800-557779

Hong Kong ■ 800 933 965

The Netherlands ■ 0800 0229592

USA ■ 800-426-8157



Sample & Assay Technologies