

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

Human Common Cytokines

Cat. no. 330231 PAHS-021ZA

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 Common Cytokines RT² Profiler PCR Array profiles the expression of 84 important cytokine genes. This array includes interferons and interleukins as well as the bone morphogenetic proteins (BMP) and members of the TGF- β family. Also represented are platelet-derived and vascular endothelial growth factors. Tumor necrosis factors are included as well as other cytokine-related genes. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to cytokines 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	ADIPOQ	BMP1	BMP2	BMP3	BMP4	BMP5	BMP6	BMP7	CD40LG	CD70	CNTF	CSF1
B	CSF2	CSF3	FAM3B	FASLG	FIGF	GDF2	GDF5	GDF9	IFNA1	IFNA2	IFNA4	IFNA5
C	IFNB1	IFNG	IL10	IL11	IL12A	IL12B	IL13	IL15	IL16	IL17A	IL17B	IL17C
D	IL18	IL19	IL1A	IL1B	IL1RN	IL2	IL20	IL21	IL22	IL23A	IL24	IL25
E	IL27	IL3	IL4	IL5	IL6	IL7	IL8	IL9	INHBA	INHBA	LEFTY2	LIF
F	LTA	LTB	MSTN	NODAL	OSM	PDGFA	SPP1	TGFA	TGFB1	TGFB2	TGFB3	THPO
G	TNF	TNFRSF11B	TNFSF10	TNFSF11	TNFSF12	TNFSF13	TNFSF13B	TNFSF14	TNFSF4	TNFSF8	TXLNA	VEGFA
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.80485	NM_004797	ADIPOQ	Adiponectin, C1Q and collagen domain containing
A02	Hs.1274	NM_006129	BMP1	Bone morphogenetic protein 1
A03	Hs.73853	NM_001200	BMP2	Bone morphogenetic protein 2
A04	Hs.387411	NM_001201	BMP3	Bone morphogenetic protein 3
A05	Hs.68879	NM_130851	BMP4	Bone morphogenetic protein 4
A06	Hs.296648	NM_021073	BMP5	Bone morphogenetic protein 5
A07	Hs.285671	NM_001718	BMP6	Bone morphogenetic protein 6
A08	Hs.473163	NM_001719	BMP7	Bone morphogenetic protein 7
A09	Hs.592244	NM_000074	CD40LG	CD40 ligand
A10	Hs.501497	NM_001252	CD70	CD70 molecule
A11	Hs.715806	NM_000614	CNTF	Ciliary neurotrophic factor
A12	Hs.591402	NM_000757	CSF1	Colony stimulating factor 1 (macrophage)
B01	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B02	Hs.2233	NM_000759	CSF3	Colony stimulating factor 3 (granulocyte)
B03	Hs.473877	NM_058186	FAM3B	Family with sequence similarity 3, member B
B04	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
B05	Hs.11392	NM_004469	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)
B06	Hs.279463	NM_016204	GDF2	Growth differentiation factor 2
B07	Hs.1573	NM_000557	GDF5	Growth differentiation factor 5
B08	Hs.25022	NM_005260	GDF9	Growth differentiation factor 9
B09	Hs.37026	NM_024013	IFNA1	Interferon, alpha 1
B10	Hs.211575	NM_000605	IFNA2	Interferon, alpha 2
B11	Hs.1510	NM_021068	IFNA4	Interferon, alpha 4
B12	Hs.37113	NM_002169	IFNA5	Interferon, alpha 5
C01	Hs.93177	NM_002176	IFNB1	Interferon, beta 1, fibroblast
C02	Hs.856	NM_000619	IFNG	Interferon, gamma
C03	Hs.193717	NM_000572	IL10	Interleukin 10
C04	Hs.467304	NM_000641	IL11	Interleukin 11
C05	Hs.673	NM_000882	IL12A	Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)
C06	Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
C07	Hs.845	NM_002188	IL13	Interleukin 13
C08	Hs.654378	NM_000585	IL15	Interleukin 15
C09	Hs.459095	NM_004513	IL16	Interleukin 16
C10	Hs.41724	NM_002190	IL17A	Interleukin 17A
C11	Hs.156979	NM_014443	IL17B	Interleukin 17B
C12	Hs.278911	NM_013278	IL17C	Interleukin 17C
D01	Hs.83077	NM_001562	IL18	Interleukin 18 (interferon-gamma-inducing factor)
D02	Hs.661017	NM_013371	IL19	Interleukin 19
D03	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
D04	Hs.126256	NM_000576	IL1B	Interleukin 1, beta
D05	Hs.81134	NM_000577	IL1RN	Interleukin 1 receptor antagonist
D06	Hs.89679	NM_000586	IL2	Interleukin 2
D07	Hs.272373	NM_018724	IL20	Interleukin 20

Position	UniGene	GenBank	Symbol	Description
D08	Hs.567559	NM_021803	IL21	Interleukin 21
D09	Hs.287369	NM_020525	IL22	Interleukin 22
D10	Hs.98309	NM_016584	IL23A	Interleukin 23, alpha subunit p19
D11	Hs.411311	NM_006850	IL24	Interleukin 24
D12	Hs.302036	NM_022789	IL25	Interleukin 25
E01	Hs.528111	NM_145659	IL27	Interleukin 27
E02	Hs.694	NM_000588	IL3	Interleukin 3 (colony-stimulating factor, multiple)
E03	Hs.73917	NM_000589	IL4	Interleukin 4
E04	Hs.2247	NM_000879	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
E05	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
E06	Hs.591873	NM_000880	IL7	Interleukin 7
E07	Hs.624	NM_000584	IL8	Interleukin 8
E08	Hs.960	NM_000590	IL9	Interleukin 9
E09	Hs.407506	NM_002191	INHHA	Inhibin, alpha
E10	Hs.583348	NM_002192	INHBA	Inhibin, beta A
E11	Hs.520187	NM_003240	LEFTY2	Left-right determination factor 2
E12	Hs.2250	NM_002309	LIF	Leukemia inhibitory factor (cholinergic differentiation factor)
F01	Hs.36	NM_000595	LTA	Lymphotoxin alpha (TNF superfamily, member 1)
F02	Hs.376208	NM_002341	LTB	Lymphotoxin beta (TNF superfamily, member 3)
F03	Hs.41565	NM_005259	MSTN	Myostatin
F04	Hs.370414	NM_018055	NODAL	Nodal homolog (mouse)
F05	Hs.248156	NM_020530	OSM	Oncostatin M
F06	Hs.535898	NM_002607	PDGFA	Platelet-derived growth factor alpha polypeptide
F07	Hs.313	NM_000582	SPP1	Secreted phosphoprotein 1
F08	Hs.170009	NM_003236	TGFA	Transforming growth factor, alpha
F09	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
F10	Hs.133379	NM_003238	TGFB2	Transforming growth factor, beta 2
F11	Hs.592317	NM_003239	TGFB3	Transforming growth factor, beta 3
F12	Hs.1166	NM_000460	THPO	Thrombopoietin
G01	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G02	Hs.81791	NM_002546	TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b
G03	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G04	Hs.333791	NM_003701	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11
G05	Hs.415839	NM_003809	TNFSF12	Tumor necrosis factor (ligand) superfamily, member 12
G06	Hs.54673	NM_003808	TNFSF13	Tumor necrosis factor (ligand) superfamily, member 13
G07	Hs.525157	NM_006573	TNFSF13B	Tumor necrosis factor (ligand) superfamily, member 13b
G08	Hs.129708	NM_003807	TNFSF14	Tumor necrosis factor (ligand) superfamily, member 14
G09	Hs.181097	NM_003326	TNFSF4	Tumor necrosis factor (ligand) superfamily, member 4
G10	Hs.654445	NM_001244	TNFSF8	Tumor necrosis factor (ligand) superfamily, member 8
G11	Hs.699306	NM_175852	TXLNA	Taxilin alpha
G12	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
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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