

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

Human Type I Interferon Response

Cat. no. 330231 PAHS-016ZA

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 Type I Interferon Response RT² Profiler PCR Array profiles the expression of genes involved in the interferon- α and interferon- β immune responses. This array contains the alpha and beta interferons (IFNs) and their receptors. It also includes signaling molecules involved in the interferon α , β response and IFN-responsive genes. Genes associated with virally induced and intrinsic interferon resistance are included as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to Interferon α , β Response 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	ADAR	BAG3	BST2	CASP1	CAV1	CCL2	CCL5	CD70	CD80	CD86	CDKN1B	CIITA
B	CRP	CXCL10	DDX58	EIF2AK2	GBP1	HLA-A	HLA-B	HLA-E	HLA-G	IFI16	IFI27	IFI30
C	IF16	IFIH1	IFIT1	IFIT2	IFIT3	IFITM1	IFITM2	IFITM3	IFNA1	IFNA2	IFNA4	IFNAR1
D	IFNAR2	IFNB1	IFNE	IFNW1	IL10	IL15	IL6	IRF1	IRF2	IRF3	IRF5	IRF7
E	IRF9	ISG15	ISG20	JAK1	JAK2	MAL	MET	MNDA	MX1	MX2	MYD88	NMI
F	NOS2	OAS1	OAS2	PML	PRKCZ	PSME2	SH2D1A	SHB	SOCS1	STAT1	STAT2	STAT3
G	TAP1	TICAM1	TIAP1	TLR3	TLR7	TLR8	TLR9	TMEM173	TNFSF10	TRAF3	TYK2	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.12341	NM_001111	ADAR	Adenosine deaminase, RNA-specific
A02	Hs.523309	NM_004281	BAG3	BCL2-associated athanogene 3
A03	Hs.118110	NM_004335	BST2	Bone marrow stromal cell antigen 2
A04	Hs.2490	NM_033292	CASP1	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
A05	Hs.74034	NM_001753	CAV1	Caveolin 1, caveolae protein, 22kDa
A06	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
A07	Hs.514821	NM_002985	CCL5	Chemokine (C-C motif) ligand 5
A08	Hs.501497	NM_001252	CD70	CD70 molecule
A09	Hs.838	NM_005191	CD80	CD80 molecule
A10	Hs.171182	NM_006889	CD86	CD86 molecule
A11	Hs.238990	NM_004064	CDKN1B	Cyclin-dependent kinase inhibitor 1B (p27, Kip1)
A12	Hs.701991	NM_000246	CIITA	Class II, major histocompatibility complex, transactivator
B01	Hs.709456	NM_000567	CRP	C-reactive protein, pentraxin-related
B02	Hs.632586	NM_001565	CXCL10	Chemokine (C-X-C motif) ligand 10
B03	Hs.190622	NM_014314	DDX58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58
B04	Hs.131431	NM_002759	EIF2AK2	Eukaryotic translation initiation factor 2-alpha kinase 2
B05	Hs.62661	NM_002053	GBP1	Guanylate binding protein 1, interferon-inducible
B06	Hs.181244	NM_002116	HLA-A	Major histocompatibility complex, class I, A
B07	Hs.654404	NM_005514	HLA-B	Major histocompatibility complex, class I, B
B08	Hs.650174	NM_005516	HLA-E	Major histocompatibility complex, class I, E
B09	Hs.512152	NM_002127	HLA-G	Major histocompatibility complex, class I, G
B10	Hs.380250	NM_005531	IFI16	Interferon, gamma-inducible protein 16
B11	Hs.532634	NM_005532	IFI27	Interferon, alpha-inducible protein 27
B12	Hs.14623	NM_006332	IFI30	Interferon, gamma-inducible protein 30
C01	Hs.730125	NM_002038	IF16	Interferon, alpha-inducible protein 6
C02	Hs.163173	NM_022168	IFIH1	Interferon induced with helicase C domain 1
C03	Hs.20315	NM_001548	IFIT1	Interferon-induced protein with tetratricopeptide repeats 1
C04	Hs.437609	NM_001547	IFIT2	Interferon-induced protein with tetratricopeptide repeats 2
C05	Hs.714337	NM_001549	IFIT3	Interferon-induced protein with tetratricopeptide repeats 3
C06	Hs.458414	NM_003641	IFITM1	Interferon induced transmembrane protein 1 (9-27)
C07	Hs.709321	NM_006435	IFITM2	Interferon induced transmembrane protein 2 (1-8D)
C08	Hs.374650	NM_021034	IFITM3	Interferon induced transmembrane protein 3
C09	Hs.37026	NM_024013	IFNA1	Interferon, alpha 1
C10	Hs.211575	NM_000605	IFNA2	Interferon, alpha 2
C11	Hs.1510	NM_021068	IFNA4	Interferon, alpha 4
C12	Hs.529400	NM_000629	IFNAR1	Interferon (alpha, beta and omega) receptor 1
D01	Hs.708195	NM_000874	IFNAR2	Interferon (alpha, beta and omega) receptor 2
D02	Hs.93177	NM_002176	IFNB1	Interferon, beta 1, fibroblast
D03	Hs.682604	NM_176891	IFNE	Interferon, epsilon
D04	Hs.73010	NM_002177	IFNW1	Interferon, omega 1
D05	Hs.193717	NM_000572	IL10	Interleukin 10
D06	Hs.654378	NM_000585	IL15	Interleukin 15
D07	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
D08	Hs.436061	NM_002198	IRF1	Interferon regulatory factor 1
D09	Hs.654566	NM_002199	IRF2	Interferon regulatory factor 2

Position	UniGene	GenBank	Symbol	Description
D10	Hs.75254	NM_001571	IRF3	Interferon regulatory factor 3
D11	Hs.521181	NM_001098629	IRF5	Interferon regulatory factor 5
D12	Hs.166120	NM_001572	IRF7	Interferon regulatory factor 7
E01	Hs.1706	NM_006084	IRF9	Interferon regulatory factor 9
E02	Hs.458485	NM_005101	ISG15	ISG15 ubiquitin-like modifier
E03	Hs.459265	NM_002201	ISG20	Interferon stimulated exonuclease gene 20kDa
E04	Hs.207538	NM_002227	JAK1	Janus kinase 1
E05	Hs.656213	NM_004972	JAK2	Janus kinase 2
E06	Hs.80395	NM_002371	MAL	Mal, T-cell differentiation protein
E07	Hs.132966	NM_000245	MET	Met proto-oncogene (hepatocyte growth factor receptor)
E08	Hs.153837	NM_002432	MNDA	Myeloid cell nuclear differentiation antigen
E09	Hs.517307	NM_002462	MX1	Myxovirus (influenza virus) resistance 1, interferon-inducible protein p78 (mouse)
E10	Hs.926	NM_002463	MX2	Myxovirus (influenza virus) resistance 2 (mouse)
E11	Hs.82116	NM_002468	MYD88	Myeloid differentiation primary response gene (88)
E12	Hs.54483	NM_004688	NMI	N-myc (and STAT) interactor
F01	Hs.709191	NM_000625	NOS2	Nitric oxide synthase 2, inducible
F02	Hs.524760	NM_002534	OAS1	2'-5'-oligoadenylate synthetase 1, 40/46kDa
F03	Hs.414332	NM_002535	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa
F04	Hs.526464	NM_033238	PML	Promyelocytic leukemia
F05	Hs.496255	NM_002744	PRKCZ	Protein kinase C, zeta
F06	Hs.434081	NM_002818	PSME2	Proteasome (prosome, macropain) activator subunit 2 (PA28 beta)
F07	Hs.349094	NM_002351	SH2D1A	SH2 domain containing 1A
F08	Hs.521482	NM_003028	SHB	Src homology 2 domain containing adaptor protein B
F09	Hs.50640	NM_003745	SOCS1	Suppressor of cytokine signaling 1
F10	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
F11	Hs.530595	NM_005419	STAT2	Signal transducer and activator of transcription 2, 113kDa
F12	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G01	Hs.352018	NM_000593	TAP1	Transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)
G02	Hs.29344	NM_182919	TICAM1	Toll-like receptor adaptor molecule 1
G03	Hs.522632	NM_003254	TIMP1	TIMP metalloproteinase inhibitor 1
G04	Hs.657724	NM_003265	TLR3	Toll-like receptor 3
G05	Hs.659215	NM_016562	TLR7	Toll-like receptor 7
G06	Hs.660543	NM_138636	TLR8	Toll-like receptor 8
G07	Hs.87968	NM_017442	TLR9	Toll-like receptor 9
G08	Hs.379754	NM_198282	TMEM173	Transmembrane protein 173
G09	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G10	Hs.510528	NM_003300	TRAF3	TNF receptor-associated factor 3
G11	Hs.75516	NM_003331	TYK2	Tyrosine kinase 2
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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