

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

Rat Type I Interferon Response

Cat. no. 330231 PARN-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 Rat 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	Adm	Bag3	Bst2	Casp1	Cav1	Cd2	Ccl4	Ccl5	Cd38	Cd69	Cd70
B	Cd80	Cd86	Cd9	Cdc37	Cdkn1a	Cdkn1b	Ciita	Crp	Cxcl10	Cxcl9	Ddx58	Eif2ak2
C	Gbp1	Ifi204	Ifi30	Ifi1	Ifi2	Ifi3	Ifitm1	Ifitm2	Ifitm3	Ifna1	Ifna2	Ifna4
D	Ifnar1	Ifnb1	Il10	Il15	Il1r1	Il1rn	Il6	Irf1	Irf2	Irf3	Irf5	Irf7
E	Irf9	Isg15	Isg20	Jak1	Jak2	Mal	Met	Mx1	Mx2	Myd88	Nmi	Nos2
F	Oas1a	Oas1b	Oas2	Pml	Prkcz	Psme2	RT1-CE16	RT1-M10-1	RT1-M3-1	Slc11a1	Socs1	Sp100
G	Star1	Star2	Star3	Top1	Timp1	Tlr3	Tlr7	Tlr9	Tnfrsf10	Traf3	Tyk2	Vegfa
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.10056	NM_031006	Adar	Adenosine deaminase, RNA-specific
A02	Rn.10232	NM_012715	Adm	Adrenomedullin
A03	Rn.46304	NM_001011936	Bag3	Bcl2-associated athanogene 3
A04	Rn.32168	NM_198134	Bst2	Bone marrow stromal cell antigen 2
A05	Rn.37508	NM_012762	Casp1	Caspase 1
A06	Rn.22518	NM_031556	Cav1	Caveolin 1, caveolae protein
A07	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
A08	Rn.37880	NM_053858	Ccl4	Chemokine (C-C motif) ligand 4
A09	Rn.8019	NM_031116	Ccl5	Chemokine (C-C motif) ligand 5
A10	Rn.11414	NM_013127	Cd38	CD38 molecule
A11	Rn.23779	NM_134327	Cd69	Cd69 molecule
A12	Rn.103013	NM_001106878	Cd70	Cd70 molecule
B01	Rn.10138	NM_012926	Cd80	Cd80 molecule
B02	Rn.6734	NM_020081	Cd86	CD86 molecule
B03	Rn.2091	NM_053018	Cd9	CD9 molecule
B04	Rn.17982	NM_053743	Cdc37	Cell division cycle 37 homolog (S. cerevisiae)
B05	Rn.10089	NM_080782	Cdkn1a	Cyclin-dependent kinase inhibitor 1A
B06	Rn.29897	NM_031762	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
B07	Rn.162013	NM_053529	Ciita	Class II, major histocompatibility complex, transactivator
B08	Rn.16463	NM_017096	Crp	C-reactive protein, pentraxin-related
B09	Rn.10584	NM_139089	Cxcl10	Chemokine (C-X-C motif) ligand 10
B10	Rn.7391	NM_145672	Cxcl9	Chemokine (C-X-C motif) ligand 9
B11	Rn.38642	NM_001106645	Ddx58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58
B12	Rn.10022	NM_019335	Eif2ak2	Eukaryotic translation initiation factor 2-alpha kinase 2
C01	N/A	XM_221882	Gbp1	Guanylate binding protein 1
C02	Rn.15194	NM_001012029	Ifi204	Interferon activated gene 204
C03	Rn.3370	NM_001030026	Ifi30	Interferon gamma inducible protein 30
C04	Rn.48677	NM_020096	Ifi1	Interferon-induced protein with tetratricopeptide repeats 1
C05	Rn.6175	NM_001024753	Ifi2	Interferon-induced protein with tetratricopeptide repeats 2
C06	Rn.35775	NM_001007694	Ifi3	Interferon-induced protein with tetratricopeptide repeats 3
C07	Rn.22087	NM_001106314	Ifitm1	Interferon induced transmembrane protein 1
C08	Rn.108174	NM_030833	Ifitm2	Interferon induced transmembrane protein 2
C09	Rn.145191	NM_001136124	Ifitm3	Interferon induced transmembrane protein 3
C10	Rn.196548	NM_001014786	Ifna1	Interferon-alpha 1
C11	N/A	XM_233152	Ifna2	Interferon alpha family, gene 2
C12	Rn.218577	NM_001106667	Ifna4	Interferon, alpha 4
D01	Rn.105738	NM_001105893	Ifnar1	Interferon (alpha, beta and omega) receptor 1
D02	Rn.138105	NM_019127	Ifnb1	Interferon beta 1, fibroblast
D03	Rn.9868	NM_012854	Il10	Interleukin 10
D04	Rn.2490	NM_013129	Il15	Interleukin 15
D05	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type 1
D06	Rn.162640	NM_022194	Il1rn	Interleukin 1 receptor antagonist
D07	Rn.9873	NM_012589	Il6	Interleukin 6
D08	Rn.6396	NM_012591	Irf1	Interferon regulatory factor 1
D09	Rn.107887	NM_001047086	Irf2	Interferon regulatory factor 2

Position	UniGene	GenBank	Symbol	Description
D10	Rn.1499	NM_001006969	Irf3	Interferon regulatory factor 3
D11	Rn.203787	NM_001106586	Irf5	Interferon regulatory factor 5
D12	Rn.101159	NM_001033691	Irf7	Interferon regulatory factor 7
E01	Rn.163277	NM_001012041	Irf9	Interferon regulatory factor 9
E02	Rn.198318	NM_001106700	Isg15	ISG15 ubiquitin-like modifier
E03	Rn.16103	NM_001008510	Isg20	Interferon stimulated exonuclease gene 20
E04	Rn.90191	NM_053466	Jak1	Janus kinase 1
E05	Rn.18909	NM_031514	Jak2	Janus kinase 2
E06	Rn.10174	NM_012798	Mal	Mal, T-cell differentiation protein
E07	Rn.10617	NM_031517	Met	Met proto-oncogene
E08	Rn.10373	NM_173096	Mx1	Myxovirus (influenza virus) resistance 1
E09	Rn.10374	NM_134350	Mx2	Myxovirus (influenza virus) resistance 2
E10	Rn.37341	NM_198130	Myd88	Myeloid differentiation primary response gene 88
E11	Rn.18496	NM_001034148	Nmi	N-myc (and STAT) interactor
E12	Rn.10400	NM_012611	Nos2	Nitric oxide synthase 2, inducible
F01	Rn.10383	NM_138913	Oas1a	2'-5' oligoadenylate synthetase 1A
F02	Rn.14530	NM_144752	Oas1b	2-5 oligoadenylate synthetase 1B
F03	Rn.136740	NM_001009715	Oas2	2'-5' oligoadenylate synthetase 2
F04	Rn.214058	XM_236296	Pml	Promyelocytic leukemia
F05	Rn.1109	NM_022507	Prkcz	Protein kinase C, zeta
F06	Rn.127779	NM_017257	Psme2	Proteasome (prosome, macropain) activator subunit 2
F07	Rn.116785	NM_001008839	RT1-CE16	RT1 class I, locus CE16
F08	Rn.128911	NM_001008851	RT1-M10-1	RT1 class I, locus M10, gene 1
F09	Rn.92606	NM_022921	RT1-M3-1	RT1 class Ib, locus M3, gene 1
F10	Rn.105919	NM_001031658	Slc11a1	Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1
F11	Rn.82754	NM_145879	Socs1	Suppressor of cytokine signaling 1
F12	Rn.15232	NM_001014220	Sp100	SP100 nuclear antigen
G01	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
G02	Rn.24237	NM_001011905	Stat2	Signal transducer and activator of transcription 2
G03	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G04	Rn.10763	NM_032055	Tap1	Transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)
G05	Rn.25754	NM_053819	Timp1	TIMP metalloproteinase inhibitor 1
G06	Rn.15273	NM_198791	Tlr3	Toll-like receptor 3
G07	Rn.219862	NM_001097582	Tlr7	Toll-like receptor 7
G08	Rn.92495	NM_198131	Tlr9	Toll-like receptor 9
G09	Rn.83627	NM_145681	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G10	Rn.12033	NM_001108724	Traf3	Tnf receptor-associated factor 3
G11	Rn.140313	XM_233741	Tyk2	Tyrosine kinase 2
G12	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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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