

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

Rat Atherosclerosis

Cat. no. 330231 PARN-038ZA

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 Atherosclerosis RT² Profiler PCR Array profiles the expression of 84 genes related to atherosclerosis. Genes involved in the processes of blood coagulation and circulation are included as well as genes involved in cell-adhesion and lipid transport and metabolism. Genes involved in the stress response, cell growth and proliferation, and apoptosis are represented as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the atherosclerosis 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	Abca1	Ace	Adfp	Apoa1	Apob	Apoe	Bax	Bcl2	Bcl2a1d	Bcl2l1	Bid	Birc3
B	Ccl2	Ccl5	Ccr1	Ccr2	Cd44	Cdh5	Cflar	Col3a1	Csf1	Csf2	Ctgf	Cxcl1
C	Egr1	Eln	Eng	Fabp3	Fas	Fga	Fgb	Fgf2	Fn1	Hbegf	Icam1	Ifng
D	Il1a	Il1b	Il1r1	Il1r2	Il2	Il3	Il4	Il5	Itga2	Itga5	Itgax	Itgb2
E	Kdr	Klf2	Lama1	Ldlr	Lif	Lpl	Lyp1a1	Mmp3	Nfkb1	Nos3	Npy	Nr1h3
F	Pdgfa	Pdgfb	Pdgfrb	Ppara	Ppard	Pparg	Ptgs1	Rxra	Sela	Sell	Selp	Selpg
G	Serp1b2	Serpine1	Sod1	Spp1	Tgfb1	Tgfb2	Thbs4	Tnc	Tnf	Vcam1	Vegfa	Vwf
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.148916	NM_178095	Abca1	ATP-binding cassette, subfamily A (ABC1), member 1
A02	Rn.10149	NM_012544	Ace	Angiotensin I converting enzyme (peptidyl-dipeptidase A) 1
A03	Rn.101967	NM_001007144	Adfp	Adipose differentiation related protein
A04	Rn.10308	NM_012738	Apoa1	Apolipoprotein A-I
A05	Rn.33815	NM_019287	Apob	Apolipoprotein B
A06	Rn.32351	NM_138828	Apoe	Apolipoprotein E
A07	Rn.10668	NM_017059	Bax	Bcl2-associated X protein
A08	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A09	Rn.19770	NM_133416	Bcl2a1d	B-cell leukemia/lymphoma 2 related protein A1d
A10	Rn.10323	NM_031535	Bcl2l1	Bcl2-like 1
A11	Rn.31142	NM_022684	Bid	BH3 interacting domain death agonist
A12	Rn.64578	NM_023987	Birc3	Baculoviral IAP repeat-containing 3
B01	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
B02	Rn.8019	NM_031116	Ccl5	Chemokine (C-C motif) ligand 5
B03	Rn.34673	NM_020542	Ccr1	Chemokine (C-C motif) receptor 1
B04	Rn.211983	NM_021866	Ccr2	Chemokine (C-C motif) receptor 2
B05	Rn.1120	NM_012924	Cd44	Cd44 molecule
B06	Rn.164510	NM_001107407	Cdh5	Cadherin 5
B07	Rn.204752	NM_057138	Cflar	CASP8 and FADD-like apoptosis regulator
B08	Rn.3247	NM_032085	Col3a1	Collagen, type III, alpha 1
B09	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
B10	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B11	Rn.17145	NM_022266	Ctgf	Connective tissue growth factor
B12	Rn.10907	NM_030845	Cxcl1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
C01	Rn.9096	NM_012551	Egr1	Early growth response 1
C02	Rn.54384	NM_012722	Eln	Elastin
C03	Rn.187025	NM_001010968	Eng	Endoglin
C04	Rn.32566	NM_024162	Fabp3	Fatty acid binding protein 3, muscle and heart
C05	Rn.162521	NM_139194	Fas	Fas (TNF receptor superfamily, member 6)
C06	Rn.98846	NM_001008724	Fga	Fibrinogen alpha chain
C07	Rn.11416	NM_020071	Fgb	Fibrinogen beta chain
C08	Rn.31808	NM_019305	Fgf2	Fibroblast growth factor 2
C09	Rn.1604	NM_019143	Fn1	Fibronectin 1
C10	Rn.10148	NM_012945	Hbegf	Heparin-binding EGF-like growth factor
C11	Rn.12	NM_012967	Icam1	Intercellular adhesion molecule 1
C12	Rn.10795	NM_138880	Ifng	Interferon gamma
D01	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
D02	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
D03	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type I
D04	Rn.10758	NM_053953	Il1r2	Interleukin 1 receptor, type II
D05	Rn.9871	NM_053836	Il2	Interleukin 2
D06	Rn.10652	NM_031513	Il3	Interleukin 3
D07	Rn.108255	NM_201270	Il4	Interleukin 4
D08	Rn.44227	NM_021834	Il5	Interleukin 5
D09	Rn.83597	XM_345156	Itga2	Integrin, alpha 2

Position	UniGene	GenBank	Symbol	Description
D10	Rn.100796	NM_001108118	Itga5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
D11	Rn.215658	XM_001080404	Itgax	Integrin, alpha X
D12	Rn.42962	NM_001037780	Itgb2	Integrin, beta 2
E01	Rn.88869	NM_013062	Kdr	Kinase insert domain receptor
E02	Rn.92653	NM_001007684	Klf2	Kruppel-like factor 2 (lung)
E03	Rn.2807	NM_001108237	Lama1	Laminin, alpha 1
E04	Rn.10483	NM_175762	Ldlr	Low density lipoprotein receptor
E05	Rn.44379	NM_022196	Lif	Leukemia inhibitory factor
E06	Rn.3834	NM_012598	Lpl	Lipoprotein lipase
E07	Rn.3594	NM_013006	Lypla1	Lysophospholipase 1
E08	Rn.32086	NM_133523	Mmp3	Matrix metalloproteinase 3
E09	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E10	Rn.44265	NM_021838	Nos3	Nitric oxide synthase 3, endothelial cell
E11	Rn.9714	NM_012614	Npy	Neuropeptide Y
E12	Rn.11209	NM_031627	Nr1h3	Nuclear receptor subfamily 1, group H, member 3
F01	Rn.10999	NM_012801	Pdgfa	Platelet-derived growth factor alpha polypeptide
F02	Rn.198230	NM_031524	Pdgfb	Platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog)
F03	Rn.98311	NM_031525	Pdgfrb	Platelet derived growth factor receptor, beta polypeptide
F04	Rn.9753	NM_013196	Ppara	Peroxisome proliferator activated receptor alpha
F05	Rn.96181	NM_013141	Ppard	Peroxisome proliferator-activated receptor delta
F06	Rn.23443	NM_013124	Pparg	Peroxisome proliferator-activated receptor gamma
F07	Rn.44404	NM_017043	Ptgs1	Prostaglandin-endoperoxide synthase 1
F08	Rn.108206	NM_012805	Rxra	Retinoid X receptor alpha
F09	Rn.10359	NM_138879	Sele	Selectin E
F10	Rn.10461	NM_019177	Sell	Selectin L
F11	Rn.10012	NM_013114	Selp	Selectin P
F12	Rn.215585	NM_001013230	Selplg	Selectin P ligand
G01	Rn.42912	NM_021696	Serpib2	Serpin peptidase inhibitor, clade B (ovalbumin), member 2
G02	Rn.29367	NM_012620	Serpine1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G03	Rn.6059	NM_017050	Sod1	Superoxide dismutase 1, soluble
G04	Rn.8871	NM_012881	Spp1	Secreted phosphoprotein 1
G05	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
G06	Rn.24539	NM_031131	Tgfb2	Transforming growth factor, beta 2
G07	Rn.11207	XM_342172	Thbs4	Thrombospondin 4
G08	Rn.12723	NM_053861	Tnc	Tenascin C
G09	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G10	Rn.11267	NM_012889	Vcam1	Vascular cell adhesion molecule 1
G11	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
G12	Rn.35561	XM_342759	Vwf	Von Willebrand factor
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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