

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

Human Atherosclerosis

Cat. no. 330231 PAHS-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™



Description

The Human 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	APOA1	APOB	APOE	BAX	BCL2	BCL2A1	BCL2L1	BID	BIRC3	CCL2
B	CCL5	CCR1	CCR2	CD44	CDH5	CFLAR	COL3A1	CSF1	CSF2	CTGF	EGR1	ELN
C	ENG	FABP3	FAS	FGA	FGF2	FN1	HBEGF	ICAM1	IFNAR2	IFNG	IL1A	IL1R1
D	IL1R2	IL2	IL3	IL4	IL5	ITGA2	ITGA5	ITGAX	ITGB2	KDR	KLF2	LAMA1
E	LDLR	LIF	LPA	LPL	MMP1	MMP3	MSR1	NFKB1	NOS3	NPY	NR1H3	PDGFA
F	PDGFB	PDGFRB	PLIN2	PPARA	PPARD	PPARG	PTGS1	RXRA	SELE	SELL	SELP1G	SERPINB2
G	SERPINE1	SOD1	SPP1	TGFB1	TGFB2	THBS4	TNC	TNF	TNFAIP3	VCAM1	VEGFA	VWF
H	ACTB	B2M	GAPDH	HRPT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.429294	NM_005502	ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1
A02	Hs.654434	NM_000789	ACE	Angiotensin I converting enzyme (peptidyl-dipeptidase A) 1
A03	Hs.633003	NM_000039	APOA1	Apolipoprotein A-1
A04	Hs.120759	NM_000384	APOB	Apolipoprotein B (including Ag(x) antigen)
A05	Hs.654439	NM_000041	APOE	Apolipoprotein E
A06	Hs.624291	NM_004324	BAX	BCL2-associated X protein
A07	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A08	Hs.227817	NM_004049	BCL2A1	BCL2-related protein A1
A09	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
A10	Hs.591054	NM_001196	BID	BH3 interacting domain death agonist
A11	Hs.127799	NM_001165	BIRC3	Baculoviral IAP repeat containing 3
A12	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
B01	Hs.514821	NM_002985	CCL5	Chemokine (C-C motif) ligand 5
B02	Hs.301921	NM_001295	CCR1	Chemokine (C-C motif) receptor 1
B03	Hs.511794	NM_001123396	CCR2	Chemokine (C-C motif) receptor 2
B04	Hs.502328	NM_000610	CD44	CD44 molecule (Indian blood group)
B05	Hs.76206	NM_001795	CDH5	Cadherin 5, type 2 (vascular endothelium)
B06	Hs.390736	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator
B07	Hs.443625	NM_000090	COL3A1	Collagen, type III, alpha 1
B08	Hs.591402	NM_000757	CSF1	Colony stimulating factor 1 (macrophage)
B09	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B10	Hs.591346	NM_001901	CTGF	Connective tissue growth factor
B11	Hs.326035	NM_001964	EGR1	Early growth response 1
B12	Hs.647061	NM_000501	ELN	Elastin
C01	Hs.76753	NM_000118	ENG	Endoglin
C02	Hs.657242	NM_004102	FABP3	Fatty acid binding protein 3, muscle and heart (mammary-derived growth inhibitor)
C03	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
C04	Hs.351593	NM_000508	FGA	Fibrinogen alpha chain
C05	Hs.284244	NM_002006	FGF2	Fibroblast growth factor 2 (basic)
C06	Hs.203717	NM_002026	FN1	Fibronectin 1
C07	Hs.799	NM_001945	HBEGF	Heparin-binding EGF-like growth factor
C08	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
C09	Hs.708195	NM_000874	IFNAR2	Interferon (alpha, beta and omega) receptor 2
C10	Hs.856	NM_000619	IFNG	Interferon, gamma
C11	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
C12	Hs.701982	NM_000877	IL1R1	Interleukin 1 receptor, type I
D01	Hs.25333	NM_004633	IL1R2	Interleukin 1 receptor, type II
D02	Hs.89679	NM_000586	IL2	Interleukin 2
D03	Hs.694	NM_000588	IL3	Interleukin 3 (colony-stimulating factor, multiple)
D04	Hs.73917	NM_000589	IL4	Interleukin 4
D05	Hs.2247	NM_000879	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
D06	Hs.482077	NM_002203	ITGA2	Integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)
D07	Hs.505654	NM_002205	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
D08	Hs.248472	NM_000887	ITGAX	Integrin, alpha X (complement component 3 receptor 4 subunit)

Position	UniGene	GenBank	Symbol	Description
D09	Hs.375957	NM_000211	ITGB2	Integrin, beta 2 (complement component 3 receptor 3 and 4 subunit)
D10	Hs.479756	NM_002253	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)
D11	Hs.715677	NM_016270	KLF2	Kruppel-like factor 2 (lung)
D12	Hs.270364	NM_005559	LAMA1	Laminin, alpha 1
E01	Hs.213289	NM_000527	LDLR	Low density lipoprotein receptor
E02	Hs.2250	NM_002309	LIF	Leukemia inhibitory factor (cholinergic differentiation factor)
E03	Hs.520120	NM_005577	LPA	Lipoprotein, Lp(a)
E04	Hs.180878	NM_000237	LPL	Lipoprotein lipase
E05	Hs.83169	NM_002421	MMP1	Matrix metalloproteinase 1 (interstitial collagenase)
E06	Hs.375129	NM_002422	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
E07	Hs.147635	NM_002445	MSR1	Macrophage scavenger receptor 1
E08	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E09	Hs.707978	NM_000603	NOS3	Nitric oxide synthase 3 (endothelial cell)
E10	Hs.1832	NM_000905	NPY	Neuropeptide Y
E11	Hs.438863	NM_005693	NR1H3	Nuclear receptor subfamily 1, group H, member 3
E12	Hs.535898	NM_002607	PDGFA	Platelet-derived growth factor alpha polypeptide
F01	Hs.1976	NM_002608	PDGFB	Platelet-derived growth factor beta polypeptide
F02	Hs.509067	NM_002609	PDGFRB	Platelet-derived growth factor receptor, beta polypeptide
F03	Hs.3416	NM_001122	PLIN2	Perilipin 2
F04	Hs.103110	NM_005036	PPARA	Peroxisome proliferator-activated receptor alpha
F05	Hs.696032	NM_006238	PPARD	Peroxisome proliferator-activated receptor delta
F06	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
F07	Hs.201978	NM_000962	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)
F08	Hs.590886	NM_002957	RXRA	Retinoid X receptor, alpha
F09	Hs.89546	NM_000450	SELE	Selectin E
F10	Hs.728756	NM_000655	SELL	Selectin L
F11	Hs.591014	NM_003006	SELPLG	Selectin P ligand
F12	Hs.594481	NM_002575	SERPINB2	Serpin peptidase inhibitor, clade B (ovalbumin), member 2
G01	Hs.414795	NM_000602	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G02	Hs.443914	NM_000454	SOD1	Superoxide dismutase 1, soluble
G03	Hs.313	NM_000582	SPP1	Secreted phosphoprotein 1
G04	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
G05	Hs.133379	NM_003238	TGFB2	Transforming growth factor, beta 2
G06	Hs.211426	NM_003248	THBS4	Thrombospondin 4
G07	Hs.143250	NM_002160	TNC	Tenascin C
G08	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G09	Hs.211600	NM_006290	TNFAIP3	Tumor necrosis factor, alpha-induced protein 3
G10	Hs.109225	NM_001078	VCAM1	Vascular cell adhesion molecule 1
G11	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
G12	Hs.440848	NM_000552	VWF	Von Willebrand factor
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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