RT² Profiler PCR Array (Rotor-Gene® Format)

Human Endothelial Cell Biology

Cat. no. 330231 PAHS-015ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Human Endothelial Cell Biology RT² Profiler PCR Array profiles the expression of 84 genes related to endothelial cell biology. Endothelial cells play a critical role in the progression of disease processes including inflammation, atherosclerosis, and tumor angiogenesis. This array includes genes involved in permissibility and vessel tone, angiogenesis, endothelial cell activation and endothelial cell injury. 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 the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

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

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc™ (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.654434	NM_000789	ACE	Angiotensin I converting enzyme (peptidyl-dipeptidase A) 1
A02	Hs.404914	NM_003183	ADAM17	ADAM metallopeptidase domain 17
A03	Hs.19383	NM_000029	AGT	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A04	Hs.728754	NM_031850	AGTR1	Angiotensin II receptor, type 1
A05	Hs.89499	NM_000698	ALOX5	Arachidonate 5-lipoxygenase
A06	Hs.369675	NM_001146	ANGPT1	Angiopoietin 1
A07	Hs.480653	NM_001154	ANXA5	Annexin A5
A08	Hs.654439	NM_000041	APOE	Apolipoprotein E
A09	Hs.624291	NM_004324	BAX	BCL2-associated X protein
A10	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A11	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
A12	Hs.37058	NM_001741	CALCA	Calcitonin-related polypeptide alpha
B01	Hs.2490	NM_033292	CASP1	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
B02	Hs.141125	NM_004346	CASP3	Caspase 3, apoptosis-related cysteine peptidase
B03	Hs.74034	NM_001753	CAV1	Caveolin 1, caveolae protein, 22kDa
B04	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
B05	Hs.514821	NM_002985	CCL5	Chemokine (C-C motif) ligand 5
B06	Hs.76206	NM_001795	CDH5	Cadherin 5, type 2 (vascular endothelium)
B07	Hs.390736	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator
B08	Hs.517356	NM_030582	COL18A1	Collagen, type XVIII, alpha 1
B09	Hs.531668	NM_002996	CX3CL1	Chemokine (C-X3-C motif) ligand 1
B10	Hs.511899	NM_001955	EDN1	Endothelin 1
B11	Hs.1407	NM_001956	EDN2	Endothelin 2
B12	Hs.183713	NM_001957	EDNRA	Endothelin receptor type A
C01	Hs.76753	NM_000118	ENG	Endoglin
C02	Hs.482562	NM_001992	F2R	Coagulation factor II (thrombin) receptor
C03	Hs.62192	NM_001993	F3	Coagulation factor III (thromboplastin, tissue factor)
C04	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
C05	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
C06	Hs.483635	NM_000800	FGF1	Fibroblast growth factor 1 (acidic)
C07	Hs.284244	NM_002006	FGF2	Fibroblast growth factor 2 (basic)
C08	Hs.654360	NM_002019	FLT1	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)
C09	Hs.203717	NM_002026	FN1	Fibronectin 1
C10	Hs.597216	NM_001530	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
C11	Hs.517581	NM_002133	HMOX1	Heme oxygenase (decycling) 1
C12	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
D01	Hs.467304	NM_000641	IL11	Interleukin 11
D02	Hs.126256	NM_000576	IL1B	Interleukin 1, beta
D03	Hs.694	NM_000588	IL3	Interleukin 3 (colony-stimulating factor, multiple)
D04	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
D05	Hs.591873	NM_000880	IL7	Interleukin 7
D06	Hs.505654	NM_002205	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
D07	Hs.436873	NM_002210	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)
D08	Hs.643813	NM_002211	ITGB1	Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)
D09	Hs.218040	NM_000212	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
D10	Hs.479756	NM_002253	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)
D11	Hs.479754	NM_000222	KIT	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
D12	Hs.171995	NM_001648	KLK3	Kallikrein-related peptidase 3
E01	Hs.83169	NM_002421	MMP1	Matrix metallopeptidase 1 (interstitial collagenase)
E02	Hs.513617	NM_004530	MMP2	Matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
E03	Hs.297413	NM_004994	MMP9	Matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
E04	Hs.707978	NM_000603	NOS3	Nitric oxide synthase 3 (endothelial cell)

Position	UniGene	GenBank	Symbol	Description
E05	Hs.219140	NM_002521	NPPB	Natriuretic peptide B
E06	Hs.490330	NM_000906	NPR1	Natriuretic peptide receptor A/guanylate cyclase A (atrionatriuretic peptide receptor A)
E07	Hs.592605	NM_002538	OCLN	Occludin
E08	Hs.74615	NM_006206	PDGFRA	Platelet-derived growth factor receptor, alpha polypeptide
E09	Hs.514412	NM_000442	PECAM1	Platelet/endothelial cell adhesion molecule
E10	Hs.81564	NM_002619	PF4	Platelet factor 4
E11	Hs.252820	NM_002632	PGF	Placental growth factor
E12	Hs.491582	NM_000930	PLAT	Plasminogen activator, tissue
F01	Hs.77274	NM_002658	PLAU	Plasminogen activator, urokinase
F02	Hs.143436	NM_000301	PLG	Plasminogen
F03	Hs.647450	NM_006404	PROCR	Protein C receptor, endothelial
F04	Hs.302085	NM_000961	PTGIS	Prostaglandin I2 (prostacyclin) synthase
F05	Hs.196384	NM_000963	PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
F06	Hs.395482	NM_005607	PTK2	PTK2 protein tyrosine kinase 2
F07	Hs.89546	NM_000450	SELE	Selectin E
F08	Hs.728756	NM_000655	SELL	Selectin L
F09	Hs.591014	NM_003006	SELPLG	Selectin P ligand
F10	Hs.414795	NM_000602	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
F11	Hs.443914	NM_000454	SOD1	Superoxide dismutase 1, soluble
F12	Hs.68061	NM_021972	SPHK1	Sphingosine kinase 1
G01	Hs.89640	NM_000459	TEK	TEK tyrosine kinase, endothelial
G02	Hs.516578	NM_006287	TFPI	Tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor)
G03	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
G04	Hs.2030	NM_000361	THBD	Thrombomodulin
G05	Hs.164226	NM_003246	THBS1	Thrombospondin 1
G06	Hs.522632	NM_003254	TIMP1	TIMP metallopeptidase inhibitor 1
G07	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G08	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G09	Hs.592212	NM_001953	TYMP	Thymidine phosphorylase
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² SYBR Green ROX™ FAST Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers	330620

* 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

www.qiagen.com

Australia ▪ 1-800-243-800
Austria ▪ 0800/281010
Belgium ▪ 0800-79612
Brazil ▪ 0800-557779
Canada ▪ 800-572-9613
China ▪ 8621-3865-3865
Denmark ▪ 80-885945
Finland ▪ 0800-914416
France ▪ 01-60-920-930
Germany ▪ 02103-29-12000
Hong Kong ▪ 800 933 965
Ireland ▪ 1800 555 049
Italy ▪ 800-787980
Japan ▪ 03-6890-7300
Korea (South) ▪ 080-000-7145
Luxembourg ▪ 8002 2076
Mexico ▪ 01-800-7742-436
The Netherlands ▪ 0800 0229592
Norway ▪ 800-18859
Singapore ▪ 1800-742-4368
Spain ▪ 91-630-7050
Sweden ▪ 020-790282
Switzerland ▪ 055-254-22-11
UK ▪ 01293-422-911
USA ▪ 800-426-8157