

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

Rabbit Angiogenesis

Cat. no. 330231 PANZ-024Z

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 Rabbit Angiogenesis RT² Profiler PCR Array profiles the expression of 84 key genes involved in modulating the biological processes of angiogenesis. The array includes growth factors and their receptors, chemokines and cytokines, matrix and adhesion molecules, proteases and their inhibitors, as well as transcription factors, all involved in the development of new blood vessels. Angiogenesis is a hallmark in the pathology of many diseases, including cancer, ischemia, atherosclerosis, and inflammatory diseases. Angiogenesis plays additional roles in normal development and physiological processes in adults, including wound healing and tissue regeneration. A set of controls present on each array enables data analysis using the $\Delta\Delta\text{CT}$ method of relative quantification and assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, research studies can easily and reliably analyze expression of a focused panel of genes related to angiogenesis 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	AKT2	ANG	ANGPT1	ANPEP	BAI3	CCL2	CDH5	COL18A1	COL4A3	CTGF	CXCL10	CXCL9
B	EDN1	EDNRA	EFNA1	EFNB2	EGF	ENG	EPAS1	EPHB2	ERBB2	F2	F3	FGF1
C	FGF2	FGF6	FIGF	FLT1	FN1	HGF	HIF1A	HPSE	ID1	IFNG	IGF1	IL1B
D	IL6	CXCL8	ITGA5	ITGAV	ITGB3	JAG1	KDR	LEP	MAPK14	MDK	MMP14	MMP19
E	MMP2	MMP3	MMP9	NOS3	NOTCH4	NRP1	NRP2	PDGFA	PDGFB	PECAM1	PGF	PLAU
F	PLG	PROK2	PTGS1	S1PR1	SERPINE5	SERPINE1	SERPINE2	SERPINF1	SPHK1	TEK	TGFA	TGFB1
G	TGFB2	TGFB3	TGFBRI	THBS1	TIE1	TIMP1	TIMP2	TIMP3	TNF	TYMP	VEGFA	VEGFC
H	ACTA2	ACTB	GAPDH	LDHA	LOC1003469 36	NGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description	Assay
A01	N/A	XM_008251526	AKT2	V-akt murine thymoma viral oncogene homolog 2	PPN14542A
A02	N/A	XM_002717878	ANG	Angiogenin, ribonuclease, RNase A family, 5	PPN12454A
A03	N/A	XM_008255827	ANGPT1	Angiopoietin 1	PPN14543A
A04	Ocu.2069	NM_001082326	ANPEP	Alanyl (membrane) aminopeptidase	PPN00462A
A05	N/A	XM_002714524	BAI3	Brain-specific angiogenesis inhibitor 3	PPN03244A
A06	Ocu.1921	NM_001082294	CCL2	Chemokine (C-C motif) ligand 2	PPN00430A
A07	N/A	XM_008257382	CDH5	Cadherin 5, type 2 (vascular endothelium)	PPN14544A
A08	N/A	XM_008253234	COL18A1	Collagen, type XVIII, alpha 1	PPN14545A
A09	Ocu.2053	XM_002712620	COL4A3	Collagen, type IV, alpha 3 (Goodpasture antigen)	PPN00385A
A10	Ocu.3361	NM_008263527	CTGF	Connective tissue growth factor	PPN00040A
A11	N/A	XM_002717106	CXCL10	Chemokine (C-X-C motif) ligand 10	PPN11983A
A12	N/A	XM_008267727	CXCL9	Chemokine (C-X-C motif) ligand 9	PPN14546A
B01	Ocu.5758	NM_001101696	EDN1	Endothelin 1	PPN00553A
B02	Ocu.2503	NM_001105674	EDNRA	Endothelin receptor type A	PPN00867A
B03	N/A	XM_002715333	EFNA1	Ephrin-A1	PPN08555A
B04	N/A	XM_008260170	EFNB2	Ephrin-B2	PPN13757A
B05	Ocu.2532	XM_008267485	EGF	Epidermal growth factor	PPN05162A
B06	N/A	XM_008251029	ENG	Endoglin	PPN04808A
B07	N/A	XM_008254453	EPAS1	Endothelial PAS domain protein 1	PPN10204A
B08	N/A	XM_008265706	EPHB2	EPH receptor B2	PPN14478A
B09	Ocu.2529	XM_002719343	ERBB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)	PPN00781A
B10	Ocu.1969	XM_002709082	F2	Coagulation factor II (thrombin)	PPN00443A
B11	Ocu.2020	NM_001082291	F3	Coagulation factor III (thromboplastin, tissue factor)	PPN00427A
B12	Ocu.7605	NM_001171488	FGF1	Fibroblast growth factor 1 (acidic)	PPN01362A
C01	Ocu.1874	XM_002717238	FGF2	Fibroblast growth factor 2 (basic)	PPN00371A
C02	N/A	XM_002712836	FGF6	Fibroblast growth factor 6	PPN09153A
C03	N/A	XM_002719824	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)	PPN01473A
C04	N/A	XM_008275216	FLT1	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)	PPN02380A
C05	Ocu.1875	XM_008259120	FN1	Fibronectin 1	PPN01149A
C06	Ocu.7547	NM_001168707	HGF	Hepatocyte growth factor (hepapoietin A; scatter factor)	PPN01119A
C07	Ocu.3329	NM_001082782	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)	PPN00805A
C08	Ocu.7172	XM_002716982	HPSE	Heparanase	PPN05259A
C09	N/A	XM_002710858	ID1	Inhibitor of DNA binding 1, dominant negative helix-loop-helix protein	PPN09558A
C10	Ocu.2149	NM_001081991	IFNG	Interferon, gamma	PPN00009A
C11	Ocu.2125	NM_001082026	IGF1	Insulin-like growth factor 1 (somatomedin C)	PPN00061A
C12	Ocu.1993	NM_001082201	IL1B	Interleukin 1, beta	PPN00304A
D01	Ocu.2447	NM_001082064	IL6	Interleukin 6 (interferon, beta 2)	PPN00115A
D02	Ocu.1938	NM_001082293	CXCL8	Interleukin 8	PPN00429A
D03	Ocu.3321	XM_002711037	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)	PPN00466A

Position	UniGene	GenBank	Symbol	Description	Assay
D04	Ocu.3178	XM_002712329	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)	PPN00276A
D05	Ocu.2373	NM_001082066	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	PPN00117A
D06	N/A	XM_002710971	JAG1	Jagged 1	PPN01730A
D07	Ocu.2346	NM_001195670	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)	PPN00012A
D08	Ocu.2587	NM_001163069	LEP	Leptin	PPN00125A
D09	N/A	XM_002714645	MAPK14	Mitogen-activated protein kinase 14	PPN02120A
D10	Ocu.3299	NM_001082167	MDK	Midkine (neurite growth-promoting factor 2)	PPN00260A
D11	Ocu.6250	NM_001082793	MMP14	Matrix metalloproteinase 14 (membrane-inserted)	PPN00823A
D12	N/A	XM_002711168	MMP19	Matrix metalloproteinase 19	PPN02194A
E01	Ocu.6274	NM_001082209	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)	PPN00314A
E02	Ocu.1964	NM_001082280	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)	PPN00412A
E03	Ocu.1773	NM_001082203	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)	PPN00307A
E04	Ocu.2500	NM_001082733	NOS3	Nitric oxide synthase 3 (endothelial cell)	PPN00740A
E05	N/A	XM_008262627	NOTCH4	Notch 4	PPN02388A
E06	N/A	XM_008274740	NRP1	Neuropilin 1	PPN08707A
E07	N/A	XM_008259014	NRP2	Neuropilin 2	PPN14548A
E08	N/A	XM_008253665	PDGFA	Platelet-derived growth factor alpha polypeptide	PPN11695A
E09	N/A	XM_008257019	PDGFB	Platelet-derived growth factor beta polypeptide	PPN14298A
E10	N/A	XM_008271715	PECAM1	Platelet/endothelial cell adhesion molecule 1	PPN13804A
E11	N/A	XM_002719644	PGF	Placental growth factor	PPN06178A
E12	Ocu.2313	NM_001082011	PLAU	Plasminogen activator, urokinase	PPN00036A
F01	N/A	XM_008263751	PLG	Plasminogen	PPN04879A
F02	N/A	XM_008260967	PROK2	Prokineticin 2	PPN14549A
F03	Ocu.2320	NM_001082681	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)	PPN00673A
F04	Ocu.2871	NM_001198946	S1PR1	Sphingosine-1-phosphate receptor 1	PPN00173A
F05	N/A	XM_002713632	SERPINB5	Serpin peptidase inhibitor, clade B (ovalbumin), member 5	PPN05679A
F06	Ocu.2301	XM_002722823	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1	PPN00813A
F07	N/A	XM_008259238	SERPINE2	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2	PPN05592A
F08	N/A	XM_002718883	SERPINF1	Serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1	PPN13380A
F09	Ocu.3183	XM_002722929	SPHK1	Sphingosine kinase 1	PPN13875A
F10	N/A	XM_008251051	TEK	TEK tyrosine kinase, endothelial	PPN13414A
F11	Ocu.2030	XM_008254277	TGFA	Transforming growth factor, alpha	PPN14358A
F12	Ocu.2133	XM_008249704	TGFB1	Transforming growth factor, beta 1	PPN00045B
G01	Ocu.3100	NM_001082660	TGFB2	Transforming growth factor, beta 2	PPN00638A
G02	N/A	XM_002719635	TGFB3	Transforming growth factor, beta 3	PPN05060A
G03	N/A	XM_008262084	TGFBR1	Transforming growth factor, beta receptor 1	PPN08910A
G04	N/A	XM_002717799	THBS1	Thrombospondin 1	PPN03605A
G05	N/A	XM_008265418	TIE1	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1	PPN14551A
G06	Ocu.178	NM_001082232	TIMP1	TIMP metalloproteinase inhibitor 1	PPN05198A
G07	Ocu.2314	XM_008252508	TIMP2	TIMP metalloproteinase inhibitor 2	PPN00078A
G08	Ocu.2315	NM_001195682	TIMP3	TIMP metalloproteinase inhibitor 3	PPN00079A
G09	Ocu.1971	NM_001082263	TNF	Tumor necrosis factor	PPN00391A
G10	N/A	XM_002723887	TYMP	Thymidine phosphorylase	PPN10047A
G11	Ocu.2339	XM_008262970	VEGFA	Vascular endothelial growth factor A	PPN00239A
G12	N/A	XM_002709481	VEGFC	Vascular endothelial growth factor C	PPN01498A
H01	Ocu.2090	NM_001101682	ACTA2	Actin, alpha 2, smooth muscle, aorta	PPN00554B
H02	Ocu.734	NM_001101683	ACTB	Actin, beta	PPN00555A
H03	Ocu.87	NM_001082253	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	PPN00377A
H04	Ocu.1108	NM_001082277	LDHA	Lactate dehydrogenase A	PPN00409A
H05	N/A	XM_002723383	LOC100346936	Non-POU domain containing, octamer-binding-like	PPN09413A
H06	N/A	SA_00511	NGDC	Rabbit Genomic DNA Contamination	PPN00001A
H07	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H08	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H09	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H10	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H11	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H12	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A

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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

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

Australia ■ 1-800-243-800

Austria ■ 0800/281010

Belgium ■ 0800-79612

Brazil ■ 0800-557779



Sample & Assay Technologies