

RT² Profiler PCR Array (Rotor-Gene® Format)

Rabbit Angiogenesis

Cat. no. 330231 PANZ-024ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

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. Using real-time PCR, you 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 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 cyclers (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
1	N/A	XM_008251526	AKT2	V-akt murine thymoma viral oncogene homolog 2
2	N/A	XM_002717878	ANG	Angiogenin, ribonuclease, RNase A family, 5
3	N/A	XM_008255827	ANGPT1	Angiopoietin 1
4	Ocu.2069	NM_001082326	ANPEP	Alanyl (membrane) aminopeptidase
5	N/A	XM_002714524	BAI3	Brain-specific angiogenesis inhibitor 3
6	Ocu.1921	NM_001082294	CCL2	Chemokine (C-C motif) ligand 2
7	N/A	XM_008257382	CDH5	Cadherin 5, type 2 (vascular endothelium)
8	N/A	XM_008253234	COL18A1	Collagen, type XVIII, alpha 1
9	Ocu.2053	XM_002712620	COL4A3	Collagen, type IV, alpha 3 (Goodpasture antigen)
10	Ocu.3361	XM_008263527	CTGF	Connective tissue growth factor
11	N/A	XM_002717106	CXCL10	Chemokine (C-X-C motif) ligand 10
12	N/A	XM_008267727	CXCL9	Chemokine (C-X-C motif) ligand 9
13	Ocu.5758	NM_001101696	EDN1	Endothelin 1
14	Ocu.2503	NM_001105674	EDNRA	Endothelin receptor type A
15	N/A	XM_002715333	EFNA1	Ephrin-A1
16	N/A	XM_008260170	EFNB2	Ephrin-B2
17	Ocu.2532	XM_008267485	EGF	Epidermal growth factor
18	N/A	XM_008251029	ENG	Endoglin
19	N/A	XM_008254453	EPAS1	Endothelial PAS domain protein 1
20	N/A	XM_008265706	EPHB2	EPH receptor B2
21	Ocu.2529	XM_002719343	ERBB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
22	Ocu.1969	XM_002709082	F2	Coagulation factor II (thrombin)
23	Ocu.2020	NM_001082291	F3	Coagulation factor III (thromboplastin, tissue factor)
24	Ocu.7605	NM_001171488	FGF1	Fibroblast growth factor 1 (acidic)
25	Ocu.1874	XM_002717238	FGF2	Fibroblast growth factor 2 (basic)
26	N/A	XM_002712836	FGF6	Fibroblast growth factor 6
27	N/A	XM_002719824	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)
28	N/A	XM_008275216	FLT1	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)
29	Ocu.1875	XM_008259120	FN1	Fibronectin 1
30	Ocu.7547	NM_001168707	HGF	Hepatocyte growth factor (hepapoietin A; scatter factor)
31	Ocu.3329	NM_001082782	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
32	Ocu.7172	XM_002716982	HPSE	Heparanase
33	N/A	XM_002710858	ID1	Inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
34	Ocu.2149	NM_001081991	IFNG	Interferon, gamma
35	Ocu.2125	NM_001082026	IGF1	Insulin-like growth factor 1 (somatomedin C)
36	Ocu.1993	NM_001082201	IL1B	Interleukin 1, beta
37	Ocu.2447	NM_001082064	IL6	Interleukin 6 (interferon, beta 2)

Position	UniGene	GenBank	Symbol	Description
38	Ocu.1938	NM_001082293	CXCL8	Interleukin 8
39	Ocu.3321	XM_002711037	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
40	Ocu.3178	XM_002712329	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)
41	Ocu.2373	NM_001082066	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
42	N/A	XM_002710971	JAG1	Jagged 1
43	Ocu.2346	NM_001195670	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)
44	Ocu.2587	NM_001163069	LEP	Leptin
45	N/A	XM_002714645	MAPK14	Mitogen-activated protein kinase 14
46	Ocu.3299	NM_001082167	MDK	Midkine (neurite growth-promoting factor 2)
47	Ocu.6250	NM_001082793	MMP14	Matrix metalloproteinase 14 (membrane-inserted)
48	N/A	XM_002711168	MMP19	Matrix metalloproteinase 19
49	Ocu.6274	NM_001082209	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
50	Ocu.1964	NM_001082280	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
51	Ocu.1773	NM_001082203	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
52	Ocu.2500	NM_001082733	NOS3	Nitric oxide synthase 3 (endothelial cell)
53	N/A	XM_008262627	NOTCH4	Notch 4
54	N/A	XM_008274740	NRP1	Neuropilin 1
55	N/A	XM_008259014	NRP2	Neuropilin 2
56	N/A	XM_008253665	PDGFA	Platelet-derived growth factor alpha polypeptide
57	N/A	XM_008257019	PDGFB	Platelet-derived growth factor beta polypeptide
58	N/A	XM_008271715	PECAM1	Platelet/endothelial cell adhesion molecule 1
59	N/A	XM_002719644	PGF	Placental growth factor
60	Ocu.2313	NM_001082011	PLAU	Plasminogen activator, urokinase
61	N/A	XM_008263751	PLG	Plasminogen
62	N/A	XM_008260967	PROK2	Prokineticin 2
63	Ocu.2320	NM_001082681	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)
64	Ocu.2871	NM_001198946	S1PR1	Sphingosine-1-phosphate receptor 1
65	N/A	XM_002713632	SERPINB5	Serpin peptidase inhibitor, clade B (ovalbumin), member 5
66	Ocu.2301	XM_002722823	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
67	N/A	XM_008259238	SERPINE2	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2
68	N/A	XM_002718883	SERPINF1	Serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1
69	Ocu.3183	XM_002722929	SPHK1	Sphingosine kinase 1
70	N/A	XM_008251051	TEK	TEK tyrosine kinase, endothelial
71	Ocu.2030	XM_008254277	TGFA	Transforming growth factor, alpha
72	Ocu.2133	XM_008249704	TGFB1	Transforming growth factor, beta 1
73	Ocu.3100	NM_001082660	TGFB2	Transforming growth factor, beta 2
74	N/A	XM_002719635	TGFB3	Transforming growth factor, beta 3
75	N/A	XM_008262084	TGFBR1	Transforming growth factor, beta receptor 1

Position	UniGene	GenBank	Symbol	Description
76	N/A	XM_002717799	THBS1	Thrombospondin 1
77	N/A	XM_008265418	TIE1	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1
78	Ocu.178	NM_001082232	TIMP1	TIMP metalloproteinase inhibitor 1
79	Ocu.2314	XM_008252508	TIMP2	TIMP metalloproteinase inhibitor 2
80	Ocu.2315	NM_001195682	TIMP3	TIMP metalloproteinase inhibitor 3
81	Ocu.1971	NM_001082263	TNF	Tumor necrosis factor
82	N/A	XM_002723887	TYMP	Thymidine phosphorylase
83	Ocu.2339	XM_008262970	VEGFA	Vascular endothelial growth factor A
84	N/A	XM_002709481	VEGFC	Vascular endothelial growth factor C
85	Ocu.2090	NM_001101682	ACTA2	Actin, alpha 2, smooth muscle, aorta
86	Ocu.734	NM_001101683	ACTB	Actin, beta
87	Ocu.87	NM_001082253	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
88	Ocu.1108	NM_001082277	LDHA	Lactate dehydrogenase A
89	N/A	XM_002723383	LOC100346936	Non-POU domain containing, octamer-binding-like
90	N/A	SA_00511	NGDC	Rabbit Genomic DNA Contamination
91	N/A	SA_00104	RTC	Reverse Transcription Control
92	N/A	SA_00104	RTC	Reverse Transcription Control
93	N/A	SA_00104	RTC	Reverse Transcription Control
94	N/A	SA_00103	PPC	Positive PCR Control
95	N/A	SA_00103	PPC	Positive PCR Control
96	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 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.

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