

RT² Profiler PCR Array (Rotor-Gene® Format)

Pig Angiogenesis

Cat. no. 330231 PASS-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 Pig 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 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
1	N/A	XM_021088791	ADGRB1	Adhesion G protein-coupled receptor B1
2	Sc.19672	NM_001159776	AKT1	V-akt murine thymoma viral oncogene homolog 1
3	Sc.719	NM_213876	AMCF-II	Alveolar macrophage-derived chemotactic factor-II
4	Sc.11079	NM_001044573	ANG	Angiogenin
5	Sc.16730	NM_213959	ANGPT1	Angiopoietin 1
6	Sc.240	NM_213808	ANGPT2	Angiopoietin 2
7	Sc.17345	NM_001038644	ANGPTL4	Angiopoietin-like 4
8	Sc.820	NM_214277	ANPEP	Alanyl (membrane) aminopeptidase
9	Sc.42710	NM_001256774	CCL11	CCL11
10	Sc.657	NM_214214	CCL2	Chemokine (C-C motif) ligand 2
11	Sc.75	NM_001001649	CDH5	Cadherin 5, type 2 (vascular endothelium)
12	N/A	XM_021065644	CNMD	Chondromodulin
13	N/A	XM_013990228	COL18A1	Collagen alpha-1(XVIII) chain-like
14	N/A	XM_013984559	COL4A3	Collagen alpha-3(IV) chain-like
15	Sc.16151	NM_213842	CSF3	Colony stimulating factor 3 (granulocyte)
16	Sc.70001	NM_213833	CTGF	Connective tissue growth factor
17	Sc.35257	NM_001008691	CXCL10	Chemokine (C-X-C motif) ligand 10
18	Sc.4871	NM_001001861	CXCL2	Chemokine (C-X-C motif) ligand 2
19	Sc.658	NM_213867	CXCL8	Interleukin 8
20	Sc.26146	NM_001114289	CXCL9	Chemokine (C-X-C motif) ligand 9
21	Sc.9364	NM_213882	EDN1	Endothelin 1
22	Sc.2274	NM_001123110	EFNA1	Ephrin-A1
23	Sc.27799	NM_001114286	EFNB2	Ephrin-B2
24	Sc.87	NM_214020	EGF	Epidermal growth factor
25	Sc.80004	NM_214031	ENG	Endoglin
26	Sc.47673	NM_001097420	EPAS1	Endothelial PAS domain protein 1
27	N/A	XM_003124371	EPHB4	EPH receptor B4
28	N/A	XM_005653925	ERBB2	V-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2
29	Sc.19907	NM_213785	F3	Tissue factor
30	Sc.16246	XM_003124010	FGF1	Acidic fibroblast growth factor
31	Sc.17772	XM_013978917	FGF2	Fibroblast growth factor 2 (basic)
32	N/A	XM_001928806	FGF6	Fibroblast growth factor 6-like
33	N/A	XM_021100898	FGFR3	Fibroblast growth factor receptor 3
34	Sc.29289	XM_001928382	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)
35	Sc.102491	XM_001925740	FLT1	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)
36	Sc.16743	XM_003133641	FN1	Fibronectin 1
37	N/A	XM_003130222	HGF	Hepatocyte growth factor-like
38	Sc.42713	NM_001123124	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)

Position	UniGene	GenBank	Symbol	Description
39	Ssc.7093	NM_001146130	HPSE	Heparanase
40	Ssc.4093	NM_213948	IFNG	Interferon-gamma
41	Ssc.16231	NM_214256	IGF1	Insulin-like growth factor 1 (somatomedin C)
42	Ssc.28829	NM_214055	IL1B	Interleukin 1 beta
43	Ssc.62	NM_214399	IL6	Interleukin 6 (interferon, beta 2)
44	Ssc.15932	NM_001083932	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)
45	Ssc.44	NM_214002	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
46	Ssc.8466	XM_005672699	JAG1	Jagged 1
47	Ssc.15999	XM_003128987	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)
48	Ssc.265	NM_213840	LEP	Leptin
49	Ssc.20489	NM_001195352	MDK	Midkine (neurite growth-promoting factor 2)
50	Ssc.734	NM_214239	MMP14	Matrix metalloproteinase 14 (membrane-inserted)
51	Ssc.5713	NM_214192	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
52	Ssc.4086	NM_001038004	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
53	Ssc.16364	NM_214295	NOS3	Nitric oxide synthase 3 (endothelial cell)
54	Ssc.19157	NM_001123147	NOTCH4	Notch 4
55	Ssc.28134	XM_003130798	NRP1	Neuropilin 1
56	Ssc.21862	XM_021076239	NRP2	Neuropilin 2
57	Ssc.6173	XM_013987658	PDGFA	Platelet-derived growth factor alpha polypeptide
58	Ssc.14558	NM_213907	PECAM1	Platelet/endothelial cell adhesion molecule
59	Ssc.49068	XM_001925764	PGF	Placental growth factor
60	Ssc.11194	NM_213945	PLAU	Plasminogen activator, urokinase
61	Ssc.65489	NM_001044590	PLG	Plasminogen
62	N/A	XM_005669727	PROK2	Prokineticin 2
63	Ssc.1986	XM_001926129	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)
64	Ssc.40732	XM_003360939	S1PR1	Sphingosine 1-phosphate receptor 1-like
65	Ssc.9781	NM_213910	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
66	Ssc.10451	NM_001078662	SERPINF1	Serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1
67	N/A	XM_005656915	SPHK1	Sphingosine kinase 1
68	N/A	XM_021072469	TBX1	T-box 1
69	Ssc.4753	XM_013993491	TEK	TEK tyrosine kinase, endothelial
70	Ssc.94427	NM_214251	TGFA	Transforming growth factor, alpha
71	Ssc.76	NM_214015	TGFB1	Transforming growth factor, beta 1
72	Ssc.10287	XM_013978074	TGFB2	Transforming growth factor, beta 2
73	Ssc.27593	NM_214198	TGFB3	Transforming growth factor, beta 3
74	Ssc.2874	NM_001038639	TGFBRI	Transforming growth factor, beta receptor 1
75	Ssc.924	NM_001244536	THBS1	Thrombospondin 1
76	Ssc.53931	XM_005659105	THBS2	Thrombospondin-2-like
77	Ssc.99400	XM_013977357	TIE1	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1

Position	UniGene	GenBank	Symbol	Description
78	<i>Sc</i> .11784	NM_213857	TIMP1	TIMP metalloproteinase inhibitor 1
79	<i>Sc</i> .11257	NM_001145985	TIMP2	TIMP metalloproteinase inhibitor 2
80	<i>Sc</i> .16028	XM_003126073	TIMP3	Tissue inhibitor of metalloproteinase-3
81	<i>Sc</i> .100	NM_214022	TNF	Tumor necrosis factor
82	<i>Sc</i> .57541	NM_214084	VEGFA	Vascular endothelial growth factor A
83	<i>Sc</i> .2095	XM_003122578	VEGFB	Vascular endothelial growth factor B-like
84	N/A	XM_021076038	VEGFC	Vascular endothelial growth factor C
85	<i>Sc</i> .10316	XM_003124280	ACTB	Actin, beta
86	<i>Sc</i> .73773	NM_213978	B2M	Beta-2-microglobulin
87	<i>Sc</i> .16135	NM_001206359	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
88	<i>Sc</i> .4158	NM_001032376	HPRT1	Hypoxanthine phosphoribosyltransferase 1
89	<i>Sc</i> .27927	NM_001244068	RPL13A	Ribosomal protein L13a
90	N/A	SA_00133	SGDC	Pig 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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