

# RT<sup>2</sup> Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

## Cow Angiogenesis

Cat. no. 330231 PASS-024ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> 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 <sup>2</sup> Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT <sup>2</sup> Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT <sup>2</sup> Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT <sup>2</sup> Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT <sup>2</sup> Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT <sup>2</sup> Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

## Description

For further details, consult the *RT<sup>2</sup> Profiler PCR Array Handbook*.

## Shipping and storage

RT<sup>2</sup> 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. RT<sup>2</sup> Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

For long term storage, keep plates at  $-20^{\circ}\text{C}$ .

Note: Ensure that you have the correct RT<sup>2</sup> Profiler PCR Array format for your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.

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## Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT<sup>2</sup> Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ADGRB1	AKT1	AMCF-II	ANG	ANGPT1	ANGPT2	ANGPTL4	ANPEP	CCL11	CCL2	CDH5	CNMD
B	COL18A1	COL4A3	CSF3	CTGF	CXCL10	CXCL2	CXCL8	CXCL9	EDN1	EFNA1	EFNB2	EGF
C	ENG	EPAS1	EPHB4	ERBB2	F3	FGF1	FGF2	FGF6	FGFR3	FIGF	FLT1	FN1
D	HGF	HIF1A	HPSE	IFNG	IGF1	IL1B	IL6	ITGAV	ITGB3	JAG1	KDR	LEP
E	MDK	MMP14	MMP2	MMP9	NOS3	NOTCH4	NRP1	NRP2	PDGFA	PECAM1	PGF	PLAU
F	PLG	PROK2	PTGS1	S1PR1	SERPINE1	SERPINF1	SPHK1	TBX1	TEK	TGFA	TGFB1	TGFB2
G	TGFB3	TGFB1	THBS1	THBS2	TIE1	TIMP1	TIMP2	TIMP3	TNF	VEGFA	VEGFB	VEGFC
H	ACTB	B2M	GAPDH	HPRT1	RPL13A	SGDC	RTC	RTC	RTC	PPC	PPC	PPC

## Gene table: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description	Assay
A01	N/A	XM_021088791	ADGRB1	Adhesion G protein-coupled receptor B1	PPS71977A
A02	Ssc.19672	NM_001159776	AKT1	V-akt murine thymoma viral oncogene homolog 1	PPS01879A
A03	Ssc.719	NM_213876	AMCF-II	Alveolar macrophage-derived chemotactic factor-II	PPS00250A
A04	Ssc.11079	NM_001044573	ANG	Angiogenin	PPS01487A
A05	Ssc.16730	NM_213959	ANGPT1	Angiopoietin 1	PPS00352B
A06	Ssc.240	NM_213808	ANGPT2	Angiopoietin 2	PPS00138A
A07	Ssc.17345	NM_001038644	ANGPTL4	Angiopoietin-like 4	PPS00930A
A08	Ssc.820	NM_214277	ANPEP	Alanyl (membrane) aminopeptidase	PPS00829A
A09	Ssc.42710	NM_001256774	CCL11	CCL11	PPS07989A
A10	Ssc.657	NM_214214	CCL2	Chemokine (C-C motif) ligand 2	PPS00734A
A11	Ssc.75	NM_001001649	CDH5	Cadherin 5, type 2 (vascular endothelium)	PPS01147A
A12	N/A	XM_021065644	CNMD	Chondromodulin	PPS71659A
B01	N/A	XM_013990228	COL18A1	Collagen alpha-1(XVIII) chain-like	PPS71818A
B02	N/A	XM_013984559	COL4A3	Collagen alpha-3(IV) chain-like	PPS16301A
B03	Ssc.16151	NM_213842	CSF3	Colony stimulating factor 3 (granulocyte)	PPS00204A
B04	Ssc.70001	NM_213833	CTGF	Connective tissue growth factor	PPS02303A
B05	Ssc.35257	NM_001008691	CXCL10	Chemokine (C-X-C motif) ligand 10	PPS01275A
B06	Ssc.4871	NM_001001861	CXCL2	Chemokine (C-X-C motif) ligand 2	PPS71731A
B07	Ssc.658	NM_213867	CXCL8	Interleukin 8	PPS00237A
B08	Ssc.26146	NM_001114289	CXCL9	Chemokine (C-X-C motif) ligand 9	PPS01982A
B09	Ssc.9364	NM_213882	EDN1	Endothelin 1	PPS00261A
B10	Ssc.2274	NM_001123110	EFNA1	Ephrin-A1	PPS02099A
B11	Ssc.27799	NM_001114286	EFNB2	Ephrin-B2	PPS01976A
B12	Ssc.87	NM_214020	EGF	Epidermal growth factor	PPS00423A
C01	Ssc.80004	NM_214031	ENG	Endoglin	PPS00436A
C02	Ssc.47673	NM_001097420	EPAS1	Endothelial PAS domain protein 1	PPS01584A
C03	N/A	XM_003124371	EPHB4	EPH receptor B4	PPS05761A
C04	N/A	XM_005653925	ERBB2	V-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2	PPS11863A
C05	Ssc.19907	NM_213785	F3	Tissue factor	PPS07886A
C06	Ssc.16246	XM_003124010	FGF1	Acidic fibroblast growth factor	PPS00806A
C07	Ssc.17772	XM_013978917	FGF2	Fibroblast growth factor 2 (basic)	PPS00943A
C08	N/A	XM_001928806	FGF6	Fibroblast growth factor 6-like	PPS08093A
C09	N/A	XM_021100898	FGFR3	Fibroblast growth factor receptor 3	PPS10814A
C10	Ssc.29289	XM_001928382	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)	PPS03474A
C11	Ssc.102491	XM_001925740	FLT1	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)	PPS00159A
C12	Ssc.16743	XM_003133641	FN1	Fibronectin 1	PPS00923A
D01	N/A	XM_003130222	HGF	Hepatocyte growth factor-like	PPS15126A
D02	Ssc.42713	NM_001123124	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)	PPS00112A
D03	Ssc.7093	NM_001146130	HPSE	Heparanase	PPS04525A
D04	Ssc.4093	NM_213948	IFNG	Interferon-gamma	PPS00334A
D05	Ssc.16231	NM_214256	IGF1	Insulin-like growth factor 1 (somatomedin C)	PPS00801A
D06	Ssc.28829	NM_214055	IL1B	Interleukin 1 beta	PPS00461B
D07	Ssc.62	NM_214399	IL6	Interleukin 6 (interferon, beta 2)	PPS00991A

Position	UniGene	GenBank	Symbol	Description	Assay
D08	Ssc.15932	NM_001083932	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)	PPS00612A
D09	Ssc.44	NM_214002	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	PPS00405A
D10	Ssc.8466	XM_005672699	JAG1	Jagged 1	PPS03830A
D11	Ssc.15999	XM_003128987	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)	PPS00634A
D12	Ssc.265	NM_213840	LEP	Leptin	PPS00198A
E01	Ssc.20489	NM_001195352	MDK	Midkine (neurite growth-promoting factor 2)	PPS04725A
E02	Ssc.734	NM_214239	MMP14	Matrix metalloproteinase 14 (membrane-inserted)	PPS00782A
E03	Ssc.5713	NM_214192	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)	PPS00703A
E04	Ssc.4086	NM_001038004	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)	PPS01420A
E05	Ssc.16364	NM_214295	NOS3	Nitric oxide synthase 3 (endothelial cell)	PPS00864A
E06	Ssc.19157	NM_001123147	NOTCH4	Notch 4	PPS02117A
E07	Ssc.28134	XM_003130798	NRP1	Neuropilin 1	PPS04541A
E08	Ssc.21862	XM_021076239	NRP2	Neuropilin 2	PPS16879A
E09	Ssc.6173	XM_013987658	PDGFA	Platelet-derived growth factor alpha polypeptide	PPS13067B
E10	Ssc.14558	NM_213907	PECAM1	Platelet/endothelial cell adhesion molecule	PPS00286A
E11	Ssc.49068	XM_001925764	PGF	Placental growth factor	PPS03715A
E12	Ssc.11194	NM_213945	PLAU	Plasminogen activator, urokinase	PPS00329A
F01	Ssc.65489	NM_001044590	PLG	Plasminogen	PPS01501A
F02	N/A	XM_005669727	PROK2	Prokineticin 2	PPS15485A
F03	Ssc.1986	XM_001926129	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)	PPS00849A
F04	Ssc.40732	XM_003360939	S1PR1	Sphingosine 1-phosphate receptor 1-like	PPS16151A
F05	Ssc.9781	NM_213910	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1	PPS00290B
F06	Ssc.10451	NM_001078662	SERPINF1	Serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1	PPS01561A
F07	N/A	XM_005656915	SPHK1	Sphingosine kinase 1	PPS12840A
F08	N/A	XM_021072469	TBX1	T-box 1	PPS71978A
F09	Ssc.4753	XM_013993491	TEK	TEK tyrosine kinase, endothelial	PPS00137A
F10	Ssc.94427	NM_214251	TGFA	Transforming growth factor, alpha	PPS00795A
F11	Ssc.76	NM_214015	TGFB1	Transforming growth factor, beta 1	PPS00418A
F12	Ssc.10287	XM_013978074	TGFB2	Transforming growth factor, beta 2	PPS00424B
G01	Ssc.27593	NM_214198	TGFB3	Transforming growth factor, beta 3	PPS00712A
G02	Ssc.2874	NM_001038639	TGFBRI	Transforming growth factor, beta receptor 1	PPS00089A
G03	Ssc.924	NM_001244536	THBS1	Thrombospondin 1	PPS01258A
G04	Ssc.53931	XM_005659105	THBS2	Thrombospondin-2-like	PPS08534A
G05	Ssc.99400	XM_013977357	TIE1	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1	PPS01277A
G06	Ssc.11784	NM_213857	TIMP1	TIMP metalloproteinase inhibitor 1	PPS00224A
G07	Ssc.11257	NM_001145985	TIMP2	TIMP metalloproteinase inhibitor 2	PPS00332A
G08	Ssc.16028	XM_003126073	TIMP3	Tissue inhibitor of metalloproteinase-3	PPS00168A
G09	Ssc.100	NM_214022	TNF	Tumor necrosis factor	PPS00426A
G10	Ssc.57541	NM_214084	VEGFA	Vascular endothelial growth factor A	PPS00495A
G11	Ssc.2095	XM_003122578	VEGFB	Vascular endothelial growth factor B-like	PPS13863A
G12	N/A	XM_021076038	VEGFC	Vascular endothelial growth factor C	PPS15442A
H01	Ssc.10316	XM_003124280	ACTB	Actin, beta	PPS71698A
H02	Ssc.73773	NM_213978	B2M	Beta-2-microglobulin	PPS00376A
H03	Ssc.16135	NM_001206359	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	PPS00192A
H04	Ssc.4158	NM_001032376	HPRT1	Hypoxanthine phosphoribosyltransferase 1	PPS00668B
H05	Ssc.27927	NM_001244068	RPL13A	Ribosomal protein L13a	PPS01574A
H06	N/A	SA_00133	SGDC	Pig Genomic DNA Contamination	PPS71596A
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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> 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 <sup>2</sup> 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 <sup>2</sup> 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.

RT<sup>2</sup> 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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