

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

## Pig TGFb Signaling Targets

Cat. no. 330231 PASS-235ZA

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

The Pig TGF $\beta$  Signaling Targets RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 key genes responsive to TGF

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
<b>A</b>	ACL	ACTA2	ACVR1	ACVRL1	AIFL1	AR	ATF4	ATP1B1	BACH1	BCL2L1	BDNF	BRD2
<b>B</b>	CDC6	CDKN1B	CEBPB	CREB1	CREBBP	CRYAB	CTNNB1	DNAJA1	EMP1	ENG	EP300	EPHB2
<b>C</b>	FN1	FOS	FOXO1	GLI2	GTF2I	HES1	HEY1	HMOX1	HSP90AA1	ID2	ID3	IFRD1
<b>D</b>	IL10	JARID2	JUP	KLF10	LOC1001568 82	LOC1005148 73	LOC1005226 77	LOC1005262 49	LOC1006207 97	LOC1006210 90	LOC396709	MAP3K7
<b>E</b>	MAPK14	MAPK8	MBD1	ME2	MMP2	MMRN1	MYC	MYOD1	NFKBIA	NNMT	PGHS-2	PITX2
<b>F</b>	PLG	PPARA	PTH1LH	PTK2B	RBL1	RGS4	RHOA	RHOB	RUNX1	S100A8	SERPINE1	SHH
<b>G</b>	SMAD1	SMAD3	SMAD6	SP1	SREBF2	STC2	TGF2	THBS1	TNFSF10	TXNIP	VEGFA	ZFP36L2
<b>H</b>	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
A01	Ssc.32399	NM_001105302	ACL	ATP citrate lyase
A02	Ssc.53896	NM_001164650	ACTA2	Actin, alpha 2, smooth muscle, aorta
A03	Ssc.9902	XM_001927798	ACVR1	Activin A receptor, type I
A04	N/A	XM_001927136	ACVRL1	Activin A receptor type II-like 1
A05	Ssc.87320	XM_003131892	AIFL1	Aryl hydrocarbon receptor interacting protein-like 1
A06	Ssc.6713	NM_214314	AR	Androgen receptor
A07	Ssc.37849	NM_001123078	ATF4	Activating transcription factor 4 (tax-responsive enhancer element B67)
A08	Ssc.246	NM_001001542	ATP1B1	ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, beta 1 polypeptide
A09	Ssc.47934	XM_003132749	BACH1	BTB and CNC homology 1, basic leucine zipper transcription factor 1
A10	Ssc.94302	NM_214285	BCL2L1	BCL2-like 1
A11	Ssc.16243	NM_214259	BDNF	Brain-derived neurotrophic factor
A12	Ssc.20953	NM_001123085	BRD2	Bromodomain containing 2
B01	Ssc.11879	XM_003131471	CDC6	Cell division cycle 6 homolog (S. cerevisiae)
B02	Ssc.6966	NM_214316	CDKN1B	Cyclin-dependent kinase inhibitor 1B (p27, Kip1)
B03	Ssc.32416	NM_001199889	CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
B04	Ssc.80814	NM_001099929	CREB1	CAMP responsive element binding protein 1
B05	Ssc.28489	XM_003124653	CREBBP	CREB binding protein
B06	Ssc.10931	XM_003357294	CRYAB	Crystallin, alpha B
B07	Ssc.25839	NM_214367	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
B08	Ssc.8473	XM_003130682	DNAJA1	DnaJ (Hsp40) homolog, subfamily A, member 1
B09	Ssc.8845	NM_001099940	EMP1	Epithelial membrane protein 1
B10	Ssc.80004	NM_214031	ENG	Endoglin
B11	Ssc.22177	XM_001929213	EP300	E1A binding protein p300
B12	Ssc.50514	XM_003127693	EPHB2	EPH receptor B2
C01	Ssc.16743	XM_003133641	FN1	Fibronectin 1
C02	Ssc.1555	NM_001123113	FOS	FBJ murine osteosarcoma viral oncogene homolog
C03	Ssc.73	NM_214014	FOXO1	Forkhead box O1
C04	Ssc.93891	XM_003133296	GLI2	GLI family zinc finger 2
C05	Ssc.1650	XM_003124425	GTF2I	General transcription factor Iii
C06	Ssc.56741	NM_001195231	HES1	Hairy and enhancer of split 1, (Drosophila)
C07	Ssc.15661	XM_001928532	HEY1	Hairy/enhancer-of-split related with YRPW motif 1
C08	Ssc.115	NM_001004027	HMOX1	Heme oxygenase (decycling) 1
C09	Ssc.12191	NM_213973	HSP90AA1	90-kDa heat shock protein
C10	Ssc.14914	NM_001037965	ID2	Inhibitor of DNA binding 2, dominant negative helix-loop-helix protein
C11	N/A	NM_001243602	ID3	Inhibitor of DNA binding 3, dominant negative helix-loop-helix protein
C12	Ssc.58494	NM_001007519	IFRD1	Interferon-related developmental regulator 1
D01	Ssc.148	NM_214041	IL10	Interleukin 10
D02	Ssc.54614	XM_003128194	JARID2	Jumonji, AT rich interactive domain 2
D03	Ssc.42011	NM_214323	JUP	Junction plakoglobin
D04	Ssc.17289	NM_001134344	KLF10	Kruppel-like factor 10
D05	Ssc.94009	XM_001929347	LOC100156 882	Furin-like
			LOC100514	

Position	UniGene	GenBank	Symbol	Description
D06	Ssc.8861	XM_003132340	873	Class E basic helix-loop-helix protein 40-like
D07	Ssc.20866	XM_003126933	LOC100522677	Transcription factor E2F4-like
D08	Ssc.16450	XM_003132323	LOC100526249	RING1 and YY1-binding protein-like
D09	N/A	XM_003361816	LOC100620797	Focal adhesion kinase 1-like
D10	N/A	XM_003353992	LOC100621090	Growth arrest and DNA damage-inducible protein GADD45 beta-like
D11	Ssc.15829	XM_003131473	LOC396709	Retinoic acid receptor alpha
D12	Ssc.10311	NM_001114280	MAP3K7	Mitogen-activated protein kinase kinase kinase 7
E01	Ssc.11018	XM_001929490	MAPK14	Mitogen-activated protein kinase 14
E02	Ssc.83372	XM_003359272	MAPK8	Mitogen-activated protein kinase 8
E03	Ssc.19376	XM_003121441	MBD1	Methyl-CpG binding domain protein 1
E04	Ssc.904	XM_003121443	ME2	Malic enzyme 2, NAD(+)-dependent, mitochondrial
E05	Ssc.5713	NM_214192	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
E06	Ssc.14368	XM_003129323	MMRN1	Multimerin 1
E07	Ssc.21433	NM_001005154	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
E08	Ssc.22906	NM_001002824	MYOD1	Myogenic differentiation 1
E09	Ssc.4759	NM_001005150	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E10	Ssc.23696	NM_001123146	NNMT	Nicotinamide N-methyltransferase
E11	Ssc.23994	NM_214321	PGHS-2	Prostaglandin G/H synthase-2
E12	Ssc.6994	NM_001206435	PITX2	Paired-like homeodomain 2
F01	Ssc.65489	NM_001044590	PLG	Plasminogen
F02	Ssc.15874	NM_001044526	PPARA	Peroxisome proliferator-activated receptor alpha
F03	Ssc.9991	NM_213916	PTH1H	Parathyroid hormone-like hormone
F04	Ssc.2140	XM_001925998	PTK2B	PTK2B protein tyrosine kinase 2 beta
F05	Ssc.53007	XM_001925279	RBL1	Retinoblastoma-like 1 (p107)
F06	Ssc.6384	NM_001185184	RGS4	Regulator of G-protein signaling 4
F07	Ssc.55690	NM_001244437	RHOA	Ras homolog family member A
F08	Ssc.26417	NM_001123189	RHOB	Ras homolog gene family, member B
F09	Ssc.46480	XM_003132761	RUNX1	Run1-related transcription factor 1
F10	Ssc.17100	NM_001160271	S100A8	S100 calcium binding protein A8
F11	Ssc.9781	NM_213910	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
F12	Ssc.94808	NM_001244513	SHH	Sonic hedgehog
G01	Ssc.11757	NM_213965	SMAD1	SMAD family member 1
G02	Ssc.15913	NM_214137	SMAD3	SMAD family member 3
G03	N/A	XM_001926127	SMAD6	SMAD family member 6
G04	N/A	XM_003355406	SP1	Sp1 transcription factor
G05	Ssc.54221	XM_003361325	SREBF2	Sterol regulatory element binding transcription factor 2
G06	Ssc.4066	NM_001110173	STC2	Stanniocalcin 2
G07	Ssc.10287	XM_003130499	TGFB2	Transforming growth factor, beta 2
G08	Ssc.924	XM_001927442	THBS1	Thrombospondin 1
G09	Ssc.94376	NM_001024696	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G10	Ssc.16648	NM_001044614	TXNIP	Thioredoxin interacting protein
G11	Ssc.57541	NM_214084	VEGFA	Vascular endothelial growth factor A
G12	Ssc.2423	XM_003133367	ZFP36L2	Zinc finger protein 36, C3H type-like 2
H01	Ssc.10316	XM_003357928	ACTB	Actin, beta
H02	Ssc.73773	NM_213978	B2M	Beta-2-microglobulin
H03	Ssc.16135	NM_001206359	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Ssc.4158	NM_001032376	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Ssc.27927	XM_003127305	RPL13A	Ribosomal protein L13a
H06	N/A	SA_00133	SGDC	Pig 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, 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 <sup>™</sup> 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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