

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

Pig Common Cytokines

Cat. no. 330231 PASS-021ZA

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 Pig Common Cytokines RT² Profiler PCR Array profiles the expression of 84 important cytokine genes. This array includes interferons and interleukins as well as the bone morphogenetic proteins (BMP) and members of the TGF- β family. Also represented are platelet-derived and vascular endothelial growth factors. Tumor necrosis factors are included as well as other cytokine-related genes. A set of controls present on each array enables data analysis using the $\Delta\Delta$ CT method of relative quantification, 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 cytokines 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	ADIPOQ	AIMP1	BMP1	BMP10	BMP2	BMP3	BMP4	BMP5	BMP6	Bmp7	C5	CD40LG
B	CD70	CSF2	CSF3	FAM3B	FASLG	FGF10	FIGF	GDF15	GDF2	GDF5	GDF9	IFN-ALPHA-5
C	IFNB1	IFNG	IL10	IL12A	IL12B	IL13	IL15	IL16	IL17A	IL17F	IL18	IL19
D	IL1A	IL1B	IL1RN	IL2	IL21	IL22	IL23A	IL25	IL27	IL4	IL-5	IL6
E	IL7	IL9	INHBA	INHBA	INHBB	LIF	OSM	IL17B	SCGB3A1	LOC100037931	CNTF	LOC100519468
F	PDGFA	IL20	IL11RA	THPO	LOC100621682	TNFSF9	LTA	LTB	MIF	MSTN	NAMPT	SPP1
G	TGFA	TGFB1	TGFB2	TGFB3	TNF	TNFRSF11B	TNFSF10	TNFSF13B	TNFSF15	TNFSF4	TXLNA	VEGFA
H	ACTB	B2M	GAPDH	HPRT1	RPL13A	SGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Ssc.78659	NM_214370	ADIPOQ	Adiponectin, C1Q and collagen domain containing
A02	Ssc.56768	NM_001114283	AIMP1	Aminoacyl tRNA synthetase complex-interacting multifunctional protein 1
A03	Ssc.54377	XM_001927773	BMP1	Bone morphogenetic protein 1
A04	N/A	XM_003125070	BMP10	Bone morphogenetic protein 10
A05	Ssc.4190	NM_001195399	BMP2	Bone morphogenetic protein 2
A06	Ssc.33398	NM_001206388	BMP3	Bone morphogenetic protein 3
A07	Ssc.16690	NM_001101031	BMP4	Bone morphogenetic protein 4
A08	Ssc.66621	NM_001204901	BMP5	Bone morphogenetic protein 5
A09	Ssc.66765	NM_001168001	BMP6	Bone morphogenetic protein 6
A10	Ssc.21774	NM_001105290	Bmp7	Bone morphogenetic protein 7
A11	Ssc.21108	NM_001001646	C5	Complement component 5
A12	Ssc.15861	NM_214126	CD40LG	CD40 ligand
B01	Ssc.42649	NM_001044531	CD70	CD70 molecule
B02	Ssc.382	NM_214118	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
B03	Ssc.16151	NM_213842	CSF3	Colony stimulating factor 3 (granulocyte)
B04	N/A	XM_003132779	FAM3B	Family with sequence similarity 3, member B
B05	Ssc.15870	NM_213806	FASLG	Fas ligand (TNF superfamily, member 6)
B06	N/A	XM_003133924	FGF10	Fibroblast growth factor 10
B07	N/A	XM_001928382	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)
B08	Ssc.43123	NM_001174056	GDF15	Growth differentiation factor 15
B09	N/A	XM_003133104	GDF2	Growth differentiation factor 2
B10	Ssc.28726	NM_001244297	GDF5	Growth differentiation factor 5
B11	Ssc.20042	NM_001001909	GDF9	Growth differentiation factor 9
B12	Ssc.95872	NM_001164860	IFN-ALPHA-5	Interferon, alpha 5
C01	Ssc.42778	NM_001003923	IFNB1	Interferon beta
C02	Ssc.4093	NM_213948	IFNG	Interferon-gamma
C03	Ssc.148	NM_214041	IL10	Interleukin 10
C04	Ssc.13	NM_213993	IL12A	Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)
C05	Ssc.71	NM_214013	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
C06	Ssc.15877	NM_213803	IL13	Interleukin 13
C07	Ssc.8833	NM_214390	IL15	Interleukin 15
C08	Ssc.18652	NM_213751	IL16	Interleukin 16
C09	Ssc.42770	NM_001005729	IL17A	Interleukin 17A
C10	Ssc.51662	XM_001924366	IL17F	Interleukin 17F
C11	Ssc.20	NM_213997	IL18	Interleukin 18 (interferon-gamma-inducing factor)
C12	Ssc.51659	XM_003130464	IL19	Interleukin 19
D01	Ssc.113	NM_214029	IL1A	Interleukin 1, alpha
D02	Ssc.28829	NM_214055	IL1B	Interleukin 1, beta
D03	Ssc.16250	NM_214262	IL1RN	Interleukin 1 receptor antagonist

Position	UniGene	GenBank	Symbol	Description
D04	Ssc.16224	NM_213861	IL2	Interleukin 2
D05	Ssc.26323	NM_214415	IL21	Interleukin 21
D06	Ssc.42733	XM_001926156	IL22	Interleukin 22
D07	Ssc.56047	NM_001130236	IL23A	Interleukin 23, alpha subunit p19
D08	Ssc.75345	XM_005666258	IL25	Interleukin 25
D09	Ssc.36782	NM_001007520	IL27	Interleukin 27
D10	Ssc.15837	NM_214123	IL4	Interleukin 4
D11	Ssc.528	NM_214205	IL-5	Interleukin 5
D12	Ssc.62	NM_214399	IL6	Interleukin 6 (interferon, beta 2)
E01	Ssc.15904	NM_214135	IL7	Interleukin 7
E02	Ssc.51687	NM_001166043	IL9	Interleukin 9
E03	Ssc.18993	NM_214189	INHBA	Inhibin, alpha
E04	Ssc.52080	NM_214028	INHBA	Inhibin, beta A
E05	Ssc.16230	NM_001164842	INHBB	Inhibin, beta B
E06	Ssc.52878	NM_214402	LIF	Leukemia inhibitory factor (cholinergic differentiation factor)
E07	N/A	XM_001929161	OSM	Oncostatin-M-like
E08	N/A	XM_003124086	IL17B	Interleukin-17B-like
E09	N/A	XM_003123626	SCGB3A1	Secretoglobulin family 3A member 1-like
E10	Ssc.51664	XM_003130310	LOC100037931	Tumor necrosis factor superfamily member 18
E11	N/A	XM_003122707	CNTF	Ciliary neurotrophic factor-like
E12	Ssc.102621	NM_001260482	LOC100519468	Tumor necrosis factor ligand superfamily member 14-like
F01	N/A	XM_003124238	PDGFA	Platelet-derived growth factor alpha polypeptide
F02	N/A	XM_003130465	IL20	Interleukin-20-like
F03	N/A	XM_003130670	IL11RA	Interleukin-11 receptor subunit alpha-like
F04	N/A	XM_003483282	THPO	Thrombopoietin
F05	N/A	XR_305507	LOC100621682	Uncharacterized LOC100621682
F06	N/A	XM_003480815	TNFSF9	Tumor necrosis factor ligand superfamily member 9-like
F07	Ssc.27595	NM_214453	LTA	Lymphotoxin alpha (TNF superfamily, member 1)
F08	Ssc.15277	NM_001185138	LTB	Lymphotoxin beta (TNF superfamily, member 3)
F09	Ssc.551	NM_001077213	MIF	Macrophage migration inhibitory factor (glycosylation-inhibiting factor)
F10	Ssc.23498	NM_214435	MSTN	Myostatin
F11	Ssc.22083	NM_001031793	NAMPT	Nicotinamide phosphoribosyltransferase
F12	Ssc.23321	NM_214023	SPP1	Secreted phosphoprotein 1
G01	Ssc.94427	NM_214251	TGFA	Transforming growth factor, alpha
G02	Ssc.76	NM_214015	TGFB1	Transforming growth factor, beta 1
G03	Ssc.10287	XM_005653762	TGFB2	Transforming growth factor, beta 2
G04	Ssc.27593	NM_214198	TGFB3	Transforming growth factor, beta 3
G05	Ssc.100	NM_214022	TNF	Tumor necrosis factor
G06	Ssc.90180	XM_003481346	TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b
G07	Ssc.12829	NM_001024696	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G08	Ssc.47270	NM_001097498	TNFSF13B	Tumor necrosis factor (ligand) superfamily, member 13b
G09	Ssc.73905	NM_001244555	TNFSF15	Tumor necrosis factor (ligand) superfamily, member 15
G10	Ssc.23487	NM_001025217	TNFSF4	Tumor necrosis factor (ligand) superfamily, member 4
G11	Ssc.70020	XM_003127774	TXLNA	Taxilin alpha
G12	Ssc.57541	NM_214084	VEGFA	Vascular endothelial growth factor A
H01	Ssc.10316	XM_003357928	ACTB	Actin, beta
H02	Ssc.73773	NM_213978	B2M	Beta-2-microglobulin
H03	Ssc.79971	NM_001206359	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Ssc.4158	NM_001032376	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Ssc.17024	NM_001244068	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, 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.

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