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

Chicken Inflammatory Cytokines & Receptors

Cat. no. 330231 PAGG-011ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² 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
RT² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT² Profiler PCR Array, Format H	Fluidigm® BioMark™

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Description

The Chicken Inflammatory Cytokines & Receptors RT² Profiler PCR Array profiles the expression of 84 key genes mediating the inflammatory response. Acute inflammation occurs in response to cell damage due to infection or injury. During this process, cellular and plasma-derived factors encourage extravasation - the recruitment of circulating immune cells into the affected tissue. These immune cells in turn upregulate the expression of inflammatory cytokines that recruit additional immune cells to mount an immune response to any invading organisms and to further promote and eventually resolve the inflammatory response. Chronic inflammation, or expression of these cytokines and receptors at low levels over long periods of time, promotes various pathological conditions including allergies and asthma, cardiovascular system disorders (atherosclerosis), central nervous system disorders (Alzheimer's disease), fibrosis, and rheumatoid arthritis. This array contains genes involved in mediating immune cascade reactions during inflammation. The chemokines, cytokines, and interleukins involved in the inflammatory response are represented as well as their receptors. Profiling the expression of these inflammatory cytokine and receptor genes helps determine the state of and the mechanisms behind inflammation in your experimental model system. Using real-time PCR, research studies can easily and reliably analyze expression of a focused panel of genes related to inflammation 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	BMP2	BMP4	BMP7	C3	C5	CCL1	CCL17	CCL19	CCL20	CCL4	CCL5
B	CCR2	CCR4	CCR5	CCR6	CCR7	CCR8	CCR9	CD40LG	CNTF	CRP	CSF1	CSF2
C	CSF3	CX3CL1	CX3CR1	CXCL12	CXCL14	CXCR2	CXCR4	CXCR5	FASLG	IFNAR2	IFNG	IL10
D	IL10RA	IL10RB	IL12B	IL12RB2	IL13	IL13RA1	IL15	IL16	IL17B	IL17F	IL17RA	IL18
E	IL18R1	IL1B	IL1R1	IL21	IL22	IL2RG	IL4	IL4R	IL5	IL5RA	IL6	IL6RA
F	IL6ST	IL7	IL7R	IL8	IL9	IL9R	LEPR	LIF	LOC100857191	LOC10085904	LOC10085970	LOC422654
G	LTB4R	NAMPT	SCYE1	SPP1	TGFB2	TNFRSF11B	TNFSF10	TNFSF11	TNFSF13B	TNFSF4	VEGFA	XCR1
H	ACTB	H6PD	HMBS	RPL4	UBC	GGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Gga.16038	NM_206991	ADIPOQ	Adiponectin, C1Q and collagen domain containing
A02	Gga.3950	NM_204358	BMP2	Bone morphogenetic protein 2
A03	Gga.686	NM_205237	BMP4	Bone morphogenetic protein 4
A04	Gga.6770	XM_417496	BMP7	Bone morphogenetic protein 7
A05	Gga.2510	NM_205405	C3	Complement component 3
A06	Gga.27675	XM_415405	C5	Complement component 5
A07	Gga.296	NM_204776	CCL1	Chemokine (C-C motif) ligand 1
A08	Gga.1020	XM_414018	CCL17	Chemokine (C-C motif) ligand 17
A09	Gga.11252	XM_424980	CCL19	Chemokine (C-C motif) ligand 19
A10	Gga.5128	NM_204438	CCL20	Chemokine (C-C motif) ligand 20
A11	Gga.255	NM_204720	CCL4	Chemokine (C-C motif) ligand 4
A12	Gga.9563	NM_001045832	CCL5	Chemokine (C-C motif) ligand 5
B01	Gga.47508	NM_001045835	CCR2	Chemokine (C-C motif) receptor 2
B02	N/A	XM_426017	CCR4	Chemokine (C-C motif) receptor 4
B03	Gga.32299	NM_001045834	CCR5	Chemokine (C-C motif) receptor 5
B04	Gga.25254	NM_001114081	CCR6	Chemokine (C-C motif) receptor 6
B05	N/A	NM_001198752	CCR7	Chemokine (C-C motif) receptor 7
B06	Gga.8983	NM_001030991	CCR8	Chemokine (C-C motif) receptor 8
B07	Gga.37887	NM_001045840	CCR9	Chemokine (C-C motif) receptor 9
B08	Gga.3027	NM_204733	CD40LG	CD40 ligand (TNF superfamily, member 5, hyper-IgM syndrome)
B09	Gga.853	NM_205492	CNTF	Ciliary neurotrophic factor
B10	Gga.33713	NM_001039564	CRP	C-reactive protein, pentraxin-related
B11	N/A	NM_001193295	CSF1	Colony-stimulating factor 1
B12	Gga.47564	NM_001007078	CSF2	Granulocyte-macrophage colony-stimulating factor
C01	Gga.712	NM_205279	CSF3	Mature cMGF
C02	Gga.43264	NM_001077232	CX3CL1	Chemokine (C-X3-C motif) ligand 1
C03	Gga.39420	XM_418820	CX3CR1	Chemokine (C-X3-C motif) receptor 1
C04	Gga.9513	NM_204510	CXCL12	Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)
C05	Gga.2720	NM_204712	CXCL14	Chemokine (C-X-C motif) ligand 14
C06	Gga.32080	NM_001031591	CXCR2	Interleukin 8 receptor, beta
C07	Gga.2305	NM_204617	CXCR4	Chemokine (C-X-C motif) receptor 4
C08	Gga.23163	NM_001030912	CXCR5	Chemokine (C-X-C motif) receptor 5
C09	Gga.29896	NM_001031559	FASLG	Fas ligand (TNF superfamily, member 6)
C10	Gga.3151	NM_204858	IFNAR2	Interferon (alpha, beta and omega) receptor 2
C11	Gga.47882	NM_205149	IFNG	Interferon, gamma
C12	Gga.46641	NM_001004414	IL10	Interleukin 10
D01	Gga.33746	NM_001039597	IL10RA	Interleukin 10 receptor, alpha
D02	Gga.391	NM_204857	IL10RB	Interleukin 10 receptor, beta
D03	Gga.14433	NM_213571	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
D04	Gga.22948	XM_422534	IL12RB2	Interleukin 12 receptor, beta 2
D05	Gga.22885	NM_001007085	IL13	Interleukin 13
D06	Gga.16401	XM_420218	IL13RA1	Interleukin 13 receptor, alpha 1

Position	UniGene	GenBank	Symbol	Description
D07	Gga.42186	NM_204571	IL15	Interleukin 15
D08	Gga.11480	NM_204352	IL16	Interleukin 16 (lymphocyte chemoattractant factor)
D09	N/A	XM_425192	IL17B	Interleukin 17B
D10	Gga.8557	NM_204460	IL17F	Interleukin 17F
D11	Gga.10579	XM_416389	IL17RA	Interleukin 17 receptor A
D12	Gga.42408	NM_204608	IL18	Interleukin 18 (interferon-gamma-inducing factor)
E01	Gga.24900	NM_001145225	IL18R1	Interleukin 18 receptor 1
E02	Gga.19	NM_204524	IL1B	Interleukin 1, beta
E03	Gga.846	NM_205485	IL1R1	Interleukin 1 receptor, type I
E04	Gga.29895	NM_001024835	IL21	Interleukin 21
E05	N/A	NM_001199614	IL22	Interleukin 22
E06	Gga.21	NM_204527	IL2RG	Interleukin 2 receptor, gamma (severe combined immunodeficiency)
E07	Gga.47945	NM_001007079	IL4	Interleukin 4
E08	Gga.6959	XM_414885	IL4R	Interleukin 4 receptor
E09	Gga.22886	NM_001007084	IL5	Interleukin 5
E10	N/A	NM_001256152	IL5RA	Interleukin 5 receptor, alpha
E11	Gga.2769	NM_204628	IL6	Interleukin 6 (interferon, beta 2)
E12	Gga.22928	NM_001044675	IL6RA	Interleukin 6 receptor alpha
F01	Gga.2225	NM_204871	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
F02	Gga.32586	NM_001037833	IL7	Interleukin 7
F03	Gga.45805	NM_001080106	IL7R	Interleukin 7 receptor
F04	Gga.512	NM_205018	IL8	Interleukin 8
F05	Gga.11039	NM_001037825	IL9	Interleukin 9
F06	N/A	XM_414887	IL9R	Interleukin 9 receptor
F07	Gga.13	NM_204323	LEPR	Leptin receptor
F08	N/A	XM_425293	LIF	Leukemia inhibitory factor (cholinergic differentiation factor)
F09	N/A	XM_003642981	LOC100857191	C-C motif chemokine 26-like
F10	N/A	XM_003641945	LOC100859040	Interleukin-17C-like
F11	N/A	XM_003640386	LOC100859707	Interleukin-2 receptor subunit beta-like
F12	Gga.12407	XM_420608	LOC422654	Similar to K60 protein
G01	Gga.34430	XM_413985	LTB4R	Leukotriene B4 receptor
G02	Gga.22203	NM_001030728	NAMPT	Nicotinamide phosphoribosyltransferase
G03	Gga.9194	XM_420496	SCYE1	Small inducible cytokine subfamily E, member 1 (endothelial monocyte-activating)
G04	Gga.3551	NM_204535	SPP1	Secreted phosphoprotein 1 (osteopontin, bone sialoprotein I, early T-lymphocyte activation 1)
G05	N/A	XM_003640970	TGFB2	Transforming growth factor, beta 2
G06	Gga.1812	NM_001033641	TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b (osteoprotegerin)
G07	Gga.8774	NM_204379	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G08	Gga.41620	NM_001083361	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11
G09	Gga.4359	NM_204327	TNFSF13B	Tumor necrosis factor (ligand) superfamily, member 13b
G10	N/A	XM_430147	TNFSF4	Tumor necrosis factor (ligand) superfamily, member 4 (tax-transcriptionally activated glycoprotein 1, 34kDa)
G11	Gga.537	NM_001110355	VEGFA	Vascular endothelial growth factor A
G12	Gga.36590	NM_001045838	XCR1	Chemokine (C motif) receptor 1
H01	Gga.6076	NM_205518	ACTB	Actin, beta
H02	Gga.44427	XM_425746	H6PD	Hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase)
H03	Gga.8480	XM_417846	HMBS	Hydroxymethylbilane synthase
H04	Gga.4523	NM_001007479	RPL4	Ribosomal protein L4
H05	Gga.39142	XM_001234599	UBC	Ubiquitin C
H06	N/A	SA_00517	GGDC	Chicken 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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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
RT² 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
RT² 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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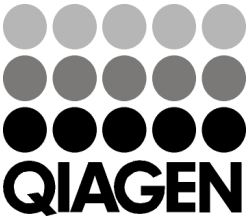

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