

# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene® Format)

## Horse Inflammatory Cytokines & Receptors

Cat. no. 330231 PAEC-011ZR

**For pathway expression analysis**

Format	For use with the following real-time cyclers
RT <sup>2</sup> Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

### Description

The Horse Inflammatory Cytokines & Receptors RT<sup>2</sup> 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 *RT<sup>2</sup> Profiler PCR Array Handbook*.

### Shipping and storage

RT<sup>2</sup> 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 RT<sup>2</sup> Profiler PCR Array format for your real-time cyclers (see table above).

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



---

Sample & Assay Technologies

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

Position	UniGene	GenBank	Symbol	Description
A01	Eca.1530	XM_001493895	BMP2	Bone morphogenetic protein 2
A02	Eca.12655	NM_001081871	CCL11	Chemokine (C-C motif) ligand 11
A03	Eca.12653	NM_001163887	CCL13	Chemokine (C-C motif) ligand 13
A04	Eca.580	NM_001081931	CCL2	Chemokine (C-C motif) ligand 2
A05	Eca.471	NM_001114941	CCL3	Chemokine (C-C motif) ligand 3
A06	Eca.1046	NM_001081863	CCL5	Chemokine (C-C motif) ligand 5
A07	Eca.454	NM_001081864	CCL8	Chemokine (C-C motif) ligand 8
A08	Eca.13980	NM_001097606	CCR2	Chemokine (C-C motif) receptor 2
A09	Eca.15899	NM_001091534	CCR5	Chemokine (C-C motif) receptor 5
A10	Eca.426	NM_001081860	CSF3	Colony stimulating factor 3 (granulocyte)
A11	Eca.16853	XM_001916175	CXCL1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
A12	Eca.570	NM_001114940	CXCL10	Chemokine (C-X-C motif) ligand 10
B01	Eca.13036	NM_001143955	CXCL2	Chemokine (C-X-C motif) ligand 2
B02	Eca.451	NM_001081886	CXCL6	Chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2)
B03	Eca.579	NM_001130078	CXCL9	Chemokine (C-X-C motif) ligand 9
B04	Eca.16925	NM_001166039	FASLG	Fas ligand (TNF superfamily, member 6)
B05	Eca.10972	NM_001081882	GM-CSF	Granulocyte-macrophage colony-stimulating-factor
B06	Eca.721	NM_001081949	IFNG	Interferon, gamma
B07	Eca.13090	NM_001082490	IL10	Interleukin 10
B08	Eca.12460	NM_001082516	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
B09	Eca.12480	NM_001143791	IL-13	Interleukin-13
B10	Eca.12733	NM_001163986	IL15	Interleukin 15
B11	N/A	XM_001915967	IL16	Interleukin 16
B12	Eca.12994	NM_001143792	IL17A	Interleukin 17A
C01	Eca.3121	NM_001082512	IL18	Interleukin 18 (interferon-gamma-inducing factor)
C02	N/A	XM_001491301	IL18R1	Interleukin 18 receptor 1
C03	Eca.13125	NM_001082500	IL1A	Interleukin 1, alpha
C04	Eca.13475	NM_001082526	IL1B	Interleukin 1, beta
C05	Eca.12590	NM_001081794	IL1R1	Interleukin 1 receptor, type I
C06	Eca.13442	NM_001082525	IL1RN	Interleukin 1 receptor antagonist
C07	Eca.3086	NM_001082522	IL23A	Interleukin 23, alpha subunit p19
C08	Eca.11253	NM_001082519	IL4	Interleukin 4
C09	Eca.492	NM_001081774	IL4R	Interleukin 4 receptor
C10	Eca.13068	NM_001082499	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
C11	Eca.12956	NM_001082496	IL6	Interleukin 6 (interferon, beta 2)
C12	N/A	XM_001495796	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
D01	Eca.472	NM_001081942	IL7R	Interleukin 7 receptor
D02	Eca.13119	NM_001083951	IL8	Interleukin 8
D03	N/A	XM_001496588	IL9R	Interleukin 9 receptor
D04	Eca.5374	XM_001489351	LOC100050377	Transforming growth factor beta-2-like
D05	N/A	XM_001487987	LOC100050766	Interleukin-17C-like
D06	Eca.13161	XM_001498211	LOC100052549	Interleukin-10 receptor subunit beta-like
D07	Eca.8174	XM_001489611	LOC100053618	Macrophage migration inhibitory factor-like
D08	N/A	XM_001490011	LOC100054624	CD40 ligand-like
D09	N/A	XM_001489661	LOC100055522	Fms-related tyrosine kinase 3 ligand-like
D10	N/A	XM_001489749	LOC100055675	Interleukin-24-like
D11	Eca.614	XM_001503888	LOC100057859	C-C motif chemokine 4-like
			LOC100058	

Position	UniGene	GenBank	Symbol	Description
D12	N/A	XM_001491333	321	Lymphotoxin-alpha-like
E01	Eca.10596	XM_001490122	LOC100058364	Lymphotoxin-beta-like
E02	N/A	XM_001491850	LOC100059131	Interleukin-7-like
E03	Eca.3999	XM_001493487	LOC100059133	Aminoacyl tRNA synthase complex-interacting multifunctional protein 2-like
E04	Eca.2276	XM_001492196	LOC100059684	Nicotinamide phosphoribosyltransferase-like
E05	N/A	XM_001492329	LOC100059908	Interleukin-33-like
E06	N/A	XM_001492550	LOC100060212	Interleukin-5 receptor subunit alpha-like
E07	N/A	XM_001915535	LOC100060254	Tumor necrosis factor ligand superfamily member 11-like
E08	N/A	XM_001496219	LOC100060470	Tumor necrosis factor ligand superfamily member 14-like
E09	N/A	XM_001503774	LOC100060593	Interleukin-17B-like
E10	N/A	XM_001492820	LOC100060605	Tumor necrosis factor ligand superfamily member 4-like
E11	N/A	XM_001493241	LOC100061208	C-C motif chemokine 24-like
E12	Eca.611	XM_001494004	LOC100062332	C-C motif chemokine 22-like
F01	Eca.10782	XM_001504354	LOC100062710	Interleukin-9-like
F02	N/A	XM_001916661	LOC100063061	Interleukin-27 subunit beta-like
F03	N/A	XM_001503013	LOC100063803	Interleukin-21-like
F04	N/A	XM_001495055	LOC100064031	Oncostatin-M-like
F05	N/A	XM_001494088	LOC100064377	Tumor necrosis factor ligand superfamily member 10-like
F06	N/A	XM_001496320	LOC100065854	CD70 antigen-like
F07	N/A	XM_001916727	LOC100067655	Complement C5-like
F08	N/A	XM_001498206	LOC100068350	CX3C chemokine receptor 1-like
F09	N/A	XM_001498910	LOC100069094	Interleukin-17F-like
F10	N/A	XM_001499405	LOC100069676	Interleukin-2 receptor subunit beta-like
F11	N/A	XM_001917543	LOC100071172	Interleukin-10 receptor subunit alpha-like
F12	N/A	XM_001917327	LOC100146493	Macrophage colony-stimulating factor 1-like
G01	N/A	XM_003365488	LOC100629131	Leukemia inhibitory factor-like
G02	N/A	XM_003364691	LOC100629807	C-X-C motif chemokine 11-like
G03	N/A	XM_003365131	LOC100629808	C-C motif chemokine 20-like
G04	N/A	XM_003364667	LOC100629997	C-X-C motif chemokine 13-like
G05	N/A	XM_003362822	LOC100630059	Interleukin-3-like
G06	N/A	XM_003364674	LOC100630489	Platelet factor 4-like
G07	Eca.563	NM_001143793	MIP-2BETA	CXCL3
G08	Eca.13019	NM_001081819	TNF	Tumor necrosis factor
G09	Eca.16459	XM_001916099	TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b
G10	N/A	NM_001205161	TNFSF13	Tumor necrosis factor (ligand) superfamily, member 13
G11	N/A	NM_001242445	TNFSF13B	Tumor necrosis factor (ligand) superfamily, member 13b
G12	Eca.12648	NM_001081821	VEGFA	Vascular endothelial growth factor A
H01	Eca.15483	NM_001081838	ACTB	Actin, beta
H02	Eca.13489	NM_001082502	B2M	Beta-2-microglobulin
H03	Eca.487	NM_001163856	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Eca.12727	XM_001490189	HPRT1	Hypoxanthine phosphoribosyltransferase 1

Position	UniGene	GenBank	Symbol	Description
H05	Eca.13629	XM_001492042	LOC100056766	60S ribosomal protein L32-like
H06	N/A horse	SA_00139	EGDC	Horse 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 ROX <sup>™</sup> 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.

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.

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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN<sup>®</sup>, Rotor-Gene<sup>®</sup>, Rotor-Disc<sup>™</sup> (QIAGEN Group); ROX<sup>™</sup> (Applied Biosystems or its subsidiaries); SYBR<sup>®</sup> (Molecular Probes, Inc.).

1067688 03/2011 © 2011 QIAGEN, all rights reserved.

[www.qiagen.com](http://www.qiagen.com)

Australia ■ 1-800-243-800

Austria ■ 0800/281010

Belgium ■ 0800-79612

Brazil ■ 0800-557779

Canada ■ 800-572-9613

China ■ 8621-3865-3865

Denmark ■ 80-885945

Finland ■ 0800-914416

France ■ 01-60-920-930

Germany ■ 02103-29-12000

Hong Kong ■ 800 933 965

Ireland ■ 1800 555 049

Italy ■ 800-787980

Japan ■ 03-6890-7300

Korea (South) ■ 080-000-7145

Luxembourg ■ 8002 2076

Mexico ■ 01-800-7742-436

The Netherlands ■ 0800 0229592

Norway ■ 800-18859

Singapore ■ 1800-742-4368

Spain ■ 91-630-7050

Sweden ■ 020-790282

Switzerland ■ 055-254-22-11

UK ■ 01293-422-911

USA ■ 800-426-8157



Sample & Assay Technologies