RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Th1 & Th2 Responses

Cat. no. 330231 PAMM-034ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Mouse Th1 & Th2 Responses RT² Profiler PCR Array profiles the expression of 84 genes involved in T helper cell (Th cell) immune responses. Adaptive immunity involves activation of T cells and B cells, lymphocytes that initiate a tailored immune response to a specific pathogen. Th cells cannot destroy pathogens alone, but instead communicate with B cells to mediate appropriate immune responses. The 2 well-known and characterized Th cell subtypes, Th1 and Th2 cells, have specific immune functions and are identified by their secreted cytokines and specific receptors. Th1 cells promote cell-mediated immunity, and secrete cytokines such as IFNG. Th2 cells promote humoral immunity and produce immunogenic factors such as IL13 and IgE. Unnecessary immune responses caused by the activation of the inappropriate Th subtype can contribute to asthma, allergies, and some autoimmune diseases. Analyzing T cell gene expression and regulation can distinguish the relative roles and importance of both subtypes to an experimental model system. This array includes markers for Th1 and Th2 cells as well as genes involved in Th1 and Th2 function and immune responses. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes important for Th1 and Th2 responses with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.

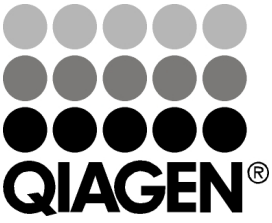
Shipping and storage

RT² 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 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

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: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.347398	NM_009744	Bcl6	B-cell leukemia/lymphoma 6
A02	Mm.4686	NM_011330	Ccl11	Chemokine (C-C motif) ligand 11
A03	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A04	Mm.341574	NM_013654	Ccl7	Chemokine (C-C motif) ligand 7
A05	Mm.8021	NM_007721	Ccr10	Chemokine (C-C motif) receptor 10
A06	Mm.6272	NM_009915	Ccr2	Chemokine (C-C motif) receptor 2
A07	Mm.57050	NM_009914	Ccr3	Chemokine (C-C motif) receptor 3
A08	Mm.1337	NM_009916	Ccr4	Chemokine (C-C motif) receptor 4
A09	Mm.14302	NM_009917	Ccr5	Chemokine (C-C motif) receptor 5
A10	Mm.367714	NM_001033126	Cd27	CD27 antigen
A11	Mm.255003	NM_007642	Cd28	CD28 antigen
A12	Mm.2209	NM_013488	Cd4	CD4 antigen
B01	Mm.271833	NM_011611	Cd40	CD40 antigen
B02	Mm.4861	NM_011616	Cd40lg	CD40 ligand
B03	Mm.89474	NM_009855	Cd80	CD80 antigen
B04	Mm.1452	NM_019388	Cd86	CD86 antigen
B05	Mm.439656	NM_009883	Cebpb	CCAAT/enhancer binding protein (C/EBP), beta
B06	Mm.132238	NM_001025432	Crebbp	CREB binding protein
B07	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B08	Mm.390	NM_009843	Ctla4	Cytotoxic T-lymphocyte-associated protein 4
B09	Mm.12876	NM_009910	Cxcr3	Chemokine (C-X-C motif) receptor 3
B10	Mm.3355	NM_010177	Fasl	Fas ligand (TNF superfamily, member 6)
B11	Mm.313866	NM_008091	Gata3	GATA binding protein 3
B12	Mm.2078	NM_010278	Gfi1	Growth factor independent 1
C01	Mm.42044	NM_017480	Icos	Inducible T-cell co-stimulator
C02	Mm.240327	NM_008337	Ifng	Interferon gamma
C03	Mm.874	NM_010548	Il10	Interleukin 10
C04	Mm.239707	NM_008352	Il12b	Interleukin 12B
C05	Mm.188337	NM_008354	Il12rb2	Interleukin 12 receptor, beta 2
C06	Mm.1284	NM_008355	Il13	Interleukin 13
C07	Mm.24208	NM_133990	Il13ra1	Interleukin 13 receptor, alpha 1
C08	Mm.4392	NM_008357	Il15	Interleukin 15
C09	Mm.1410	NM_008360	Il18	Interleukin 18
C10	Mm.422756	NM_010531	Il18bp	Interleukin 18 binding protein
C11	Mm.253664	NM_008365	Il18r1	Interleukin 18 receptor 1
C12	Mm.896	NM_008362	Il1r1	Interleukin 1 receptor, type I
D01	Mm.289824	NM_010743	Il1rl1	Interleukin 1 receptor-like 1
D02	Mm.14190	NM_008366	Il2	Interleukin 2
D03	Mm.90154	NM_080729	Il25	Interleukin 25
D04	Mm.222632	NM_145636	Il27	Interleukin 27
D05	Mm.38386	NM_016671	Il27ra	Interleukin 27 receptor, alpha
D06	Mm.915	NM_008367	Il2ra	Interleukin 2 receptor, alpha chain
D07	Mm.983	NM_010556	Il3	Interleukin 3
D08	Mm.276360	NM_021283	Il4	Interleukin 4
D09	Mm.233802	NM_001008700	Il4ra	Interleukin 4 receptor, alpha
D10	Mm.4461	NM_010558	Il5	Interleukin 5
D11	Mm.1019	NM_031168	Il6	Interleukin 6
D12	Mm.3825	NM_008371	Il7	Interleukin 7
E01	Mm.389	NM_008372	Il7r	Interleukin 7 receptor
E02	Mm.3006	NM_008373	Il9	Interleukin 9
E03	Mm.105218	NM_008390	Irf1	Interferon regulatory factor 1
E04	Mm.4677	NM_013674	Irf4	Interferon regulatory factor 4
E05	Mm.289657	NM_146145	Jak1	Janus kinase 1
E06	Mm.275839	NM_008413	Jak2	Janus kinase 2
E07	Mm.249645	NM_010589	Jak3	Janus kinase 3
E08	Mm.1167	NM_008416	Junb	Jun-B oncogene
E09	Mm.87787	NM_010735	Lta	Lymphotoxin A

Position	UniGene	GenBank	Symbol	Description
E10	Mm.275549	NM_001025577	Maf	Avian musculoaponeurotic fibrosarcoma (v-maf) AS42 oncogene homolog
E11	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
E12	Mm.68933	NM_016961	Mapk9	Mitogen-activated protein kinase 9
F01	Mm.329560	NM_016791	Nfatc1	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
F02	Mm.116802	NM_010899	Nfatc2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
F03	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
F04	Mm.2418	NM_009545	Pcgf2	Polycomb group ring finger 2
F05	Mm.391573	NM_011210	Ptprc	Protein tyrosine phosphatase, receptor type, C
F06	Mm.1321	NM_009160	Sftpd	Surfactant associated protein D
F07	Mm.130	NM_009896	Socs1	Suppressor of cytokine signaling 1
F08	Mm.3468	NM_007707	Socs3	Suppressor of cytokine signaling 3
F09	Mm.126885	NM_019654	Socs5	Suppressor of cytokine signaling 5
F10	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
F11	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
F12	Mm.1550	NM_011487	Stat4	Signal transducer and activator of transcription 4
G01	Mm.121721	NM_009284	Stat6	Signal transducer and activator of transcription 6
G02	Mm.477879	NM_019507	Tbx21	T-box 21
G03	Mm.3992	NM_009368	Tgfb3	Transforming growth factor, beta 3
G04	Mm.38049	NM_021297	Tlr4	Toll-like receptor 4
G05	Mm.42146	NM_011604	Tlr6	Toll-like receptor 6
G06	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G07	Mm.13885	NM_011659	Tnfrsf4	Tumor necrosis factor receptor superfamily, member 4
G08	Mm.12810	NM_009401	Tnfrsf8	Tumor necrosis factor receptor superfamily, member 8
G09	Mm.4994	NM_009452	Tnfsf4	Tumor necrosis factor (ligand) superfamily, member 4
G10	Mm.20249	NM_018793	Tyk2	Tyrosine kinase 2
G11	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G12	Mm.3868	NM_009537	Yy1	YY1 transcription factor
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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 ROX™ 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

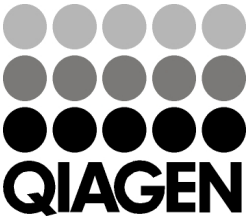
* Larger kit sizes available; please inquire.

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.

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