RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Antifungal Response

Cat. no. 330231 PAMM-147ZR

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 Antifungal Response RT² Profiler PCR Array profiles the expression of 84 key genes involved in the innate immune response to fungi. Three different families of pattern recognition receptors (PRRs) (toll-like (TLRs), Nod-like (NLRs), and RIG-I-like receptors) initiate innate immunity, the inborn general host response to common pathogens. During the initial stages of a fungal infection, TLR and NLR family members, as well as other PRRs, recognize fungal pathogen-associated molecular patterns (PAMPs) including ß-(1, 3)-glucans, mannan, and chitin. PAMP-receptor binding then activates the innate immune response, initiates downstream signaling, and induces expression of inflammatory cytokines. The downstream signaling of some fungal-associated PRRs is not widely characterized, but recent microarray studies have identified many genes affected during the initial stages of fungal infections. This array includes PRRs involved in fungal pathogen recognition and represents their downstream signaling pathways. This array also includes genes responsive to initial Candida albicans, Aspergillus fumigatus, or Cryptococcus neoformans infection. The results of this array may yield insights into innate immune mechanisms to fungal infection. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in the initial fungal pathogen response with this array.

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

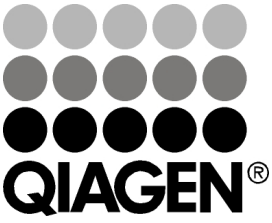
Shipping and storage

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.239141	NM_009740	Bcl10	B-cell leukemia/lymphoma 10
A02	Mm.19131	NM_009778	C3	Complement component 3
A03	Mm.247623	NM_007577	C5ar1	Complement component 5a receptor 1
A04	Mm.330064	NM_001037747	Card9	Caspase recruitment domain family, member 9
A05	Mm.1051	NM_009807	Casp1	Caspase 1
A06	Mm.336851	NM_009812	Casp8	Caspase 8
A07	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
A08	Mm.116739	NM_016960	Ccl20	Chemokine (C-C motif) ligand 20
A09	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A10	Mm.274927	NM_009912	Ccr1	Chemokine (C-C motif) receptor 1
A11	Mm.14302	NM_009917	Ccr5	Chemokine (C-C motif) receptor 5
A12	Mm.3460	NM_009841	Cd14	CD14 antigen
B01	Mm.136079	NM_144943	Cd207	CD207 antigen
B02	Mm.32510	NM_133238	Cd209a	CD209a antigen
B03	Mm.18628	NM_007643	Cd36	CD36 antigen
B04	Mm.271833	NM_011611	Cd40	CD40 antigen
B05	Mm.779	NM_007650	Cd5	CD5 antigen
B06	Mm.57175	NM_009856	Cd83	CD83 antigen
B07	Mm.46418	NM_023186	Chia	Chitinase, acidic
B08	Mm.271782	NM_020001	Clec4n	C-type lectin domain family 4, member n
B09	Mm.239516	NM_020008	Clec7a	C-type lectin domain family 7, member a
B10	Mm.218571	NM_130449	Colec12	Collectin sub-family member 12
B11	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B12	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
C01	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
C02	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
C03	Mm.131723	NM_019494	Cxcl11	Chemokine (C-X-C motif) ligand 11
C04	Mm.244289	NM_203320	Cxcl3	Chemokine (C-X-C motif) ligand 3
C05	Mm.766	NM_008599	Cxcl9	Chemokine (C-X-C motif) ligand 9
C06	Mm.1614	NM_007974	F2rl1	Coagulation factor II (thrombin) receptor-like 1
C07	Mm.273188	NM_010171	F3	Coagulation factor III
C08	Mm.150	NM_010186	Fcgr1	Fc receptor, IgG, high affinity I
C09	Mm.22119	NM_010188	Fcgr3	Fc receptor, IgG, low affinity III
C10	Mm.251254	NM_144559	Fcgr4	Fc receptor, IgG, low affinity IV
C11	Mm.182935	NM_010190	Fcnb	Ficolin B
C12	Mm.246513	NM_010234	Fos	FBJ osteosarcoma oncogene
D01	Mm.240327	NM_008337	Ifng	Interferon gamma
D02	Mm.277886	NM_010546	Ikbkb	Inhibitor of kappaB kinase beta
D03	Mm.874	NM_010548	Il10	Interleukin 10
D04	Mm.103783	NM_008351	Il12a	Interleukin 12A
D05	Mm.239707	NM_008352	Il12b	Interleukin 12B
D06	Mm.1410	NM_008360	Il18	Interleukin 18
D07	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
D08	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D09	Mm.896	NM_008362	Il1r1	Interleukin 1 receptor, type I
D10	Mm.14190	NM_008366	Il2	Interleukin 2
D11	Mm.125482	NM_031252	Il23a	Interleukin 23, alpha subunit p19
D12	Mm.1019	NM_031168	Il6	Interleukin 6
E01	Mm.38241	NM_008363	Irak1	Interleukin-1 receptor-associated kinase 1
E02	Mm.422858	NM_029926	Irak4	Interleukin-1 receptor-associated kinase 4
E03	Mm.262106	NM_008401	Itgam	Integrin alpha M
E04	Mm.1137	NM_008404	Itgb2	Integrin beta 2
E05	Mm.275071	NM_010591	Jun	Jun oncogene
E06	Mm.317331	NM_010747	Lyn	Yamaguchi sarcoma viral (v-yes-1) oncogene homolog
E07	Mm.132613	NM_172833	Malt1	Mucosa associated lymphoid tissue lymphoma translocation gene 1
E08	Mm.412922	NM_009157	Map2k4	Mitogen-activated protein kinase kinase 4
E09	Mm.258589	NM_172688	Map3k7	Mitogen-activated protein kinase kinase kinase 7

Position	UniGene	GenBank	Symbol	Description
E10	Mm.311337	NM_011951	Mapk14	Mitogen-activated protein kinase 14
E11	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
E12	Mm.30045	NM_010776	Mbl2	Mannose-binding lectin (protein C) 2
F01	Mm.2019	NM_008625	Mrc1	Mannose receptor, C type 1
F02	Mm.213003	NM_010851	Myd88	Myeloid differentiation primary response gene 88
F03	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
F04	Mm.170515	NM_010907	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
F05	Mm.54174	NM_145827	Nlrp3	NLR family, pyrin domain containing 3
F06	Mm.5142	NM_008730	Nptx1	Neuronal pentraxin 1
F07	Mm.192699	NM_172285	Plcg2	Phospholipase C, gamma 2
F08	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F09	Mm.271799	NM_013545	Ptpn6	Protein tyrosine phosphatase, non-receptor type 6
F10	Mm.276776	NM_008987	Ptx3	Pentraxin related gene
F11	Mm.24163	NM_023258	Pycard	PYD and CARD domain containing
F12	Mm.184163	NM_029780	Raf1	V-raf-leukemia viral oncogene 1
G01	Mm.10486	NM_001004157	Scarf1	Scavenger receptor class F, member 1
G02	Mm.1321	NM_009160	Sftpd	Surfactant associated protein D
G03	Mm.3468	NM_007707	Socs3	Suppressor of cytokine signaling 3
G04	Mm.38248	NM_011375	St3gal5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5
G05	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G06	Mm.375031	NM_011518	Sykb	Spleen tyrosine kinase
G07	Mm.23987	NM_054096	Tirap	Toll-interleukin 1 receptor (TIR) domain-containing adaptor protein
G08	Mm.87596	NM_011905	Tlr2	Toll-like receptor 2
G09	Mm.38049	NM_021297	Tlr4	Toll-like receptor 4
G10	Mm.44889	NM_031178	Tlr9	Toll-like receptor 9
G11	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G12	Mm.292729	NM_009424	Traf6	Tnf receptor-associated factor 6
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.

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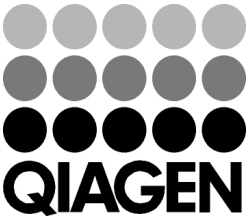

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