RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Antiviral Response

Cat. no. 330231 PAMM-122ZR

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 Antiviral Response RT² Profiler PCR Array profiles the expression of 84 key genes involved in the innate antiviral immune response. 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 such as viruses. These receptors recognize and bind viral DNA and RNA, activating downstream signaling to induce the expression of inflammatory cytokines including alpha and beta interferons. Alpha and beta interferons mediate type-I interferon signaling that activates dendritic and natural killer cells as well as the adaptive immune response. Some viral nucleic acids bind to multiple PRRs, and each immune cell type expresses a specific set of PRRs. This array contains the receptors and signaling effectors for TLRs, NLRs and RIG-I-like receptors, the genes responsive to these pathways, and the genes involved in type-I interferon signaling as well as downstream interferon-stimulated genes (ISGs). The results of this array allow you to study the interactions of these innate immune signaling networks with a specific viral infection. Using real-time PCR, your research study can easily and reliably analyze the expression of a focused panel of genes involved in innate immunity with this array.

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

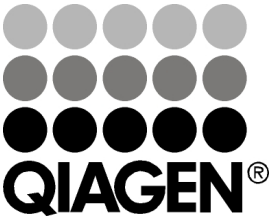
Shipping and storage

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.131453	NM_001013779	Aim2	Absent in melanoma 2
A02	Mm.9852	NM_026217	Atg12	Autophagy-related 12 (yeast)
A03	Mm.22264	NM_053069	Atg5	Autophagy-related 5 (yeast)
A04	Mm.92705	NM_013727	Azi2	5-azacytidine induced gene 2
A05	Mm.330064	NM_001037747	Card9	Caspase recruitment domain family, member 9
A06	Mm.1051	NM_009807	Casp1	Caspase 1
A07	Mm.336851	NM_009812	Casp8	Caspase 8
A08	Mm.1282	NM_011337	Ccl3	Chemokine (C-C motif) ligand 3
A09	Mm.244263	NM_013652	Ccl4	Chemokine (C-C motif) ligand 4
A10	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A11	Mm.271833	NM_011611	Cd40	CD40 antigen
A12	Mm.89474	NM_009855	Cd80	CD80 antigen
B01	Mm.1452	NM_019388	Cd86	CD86 antigen
B02	Mm.3996	NM_007700	Chuk	Conserved helix-loop-helix ubiquitous kinase
B03	Mm.240325	NM_028065	Cnpy3	Canopy 3 homolog (zebrafish)
B04	Mm.236553	NM_007798	Ctsb	Cathepsin B
B05	Mm.930	NM_009984	Ctsl	Cathepsin L
B06	Mm.3619	NM_021281	Ctss	Cathepsin S
B07	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
B08	Mm.131723	NM_019494	Cxcl11	Chemokine (C-X-C motif) ligand 11
B09	Mm.766	NM_008599	Cxcl9	Chemokine (C-X-C motif) ligand 9
B10	Mm.24282	NM_173369	Cyld	Cylindromatosis (turban tumor syndrome)
B11	Mm.374868	NM_145496	Dak	Dihydroxyacetone kinase 2 homolog (yeast)
B12	Mm.289662	NM_010028	Ddx3x	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 3, X-linked
C01	Mm.86382	NM_172689	Ddx58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58
C02	Mm.271830	NM_030150	Dhx58	DEXH (Asp-Glu-X-His) box polypeptide 58
C03	Mm.5126	NM_010175	Fadd	Fas (TNFRSF6)-associated via death domain
C04	Mm.246513	NM_010234	Fos	FBJ osteosarcoma oncogene
C05	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
C06	Mm.136224	NM_027835	Ifih1	Interferon induced with helicase C domain 1
C07	Mm.14091	NM_010503	Ifna2	Interferon alpha 2
C08	Mm.502	NM_010508	Ifnar1	Interferon (alpha and beta) receptor 1
C09	Mm.1245	NM_010510	Ifnb1	Interferon beta 1, fibroblast
C10	Mm.277886	NM_010546	Ikbkb	Inhibitor of kappaB kinase beta
C11	Mm.103783	NM_008351	Il12a	Interleukin 12A
C12	Mm.239707	NM_008352	Il12b	Interleukin 12B
D01	Mm.4392	NM_008357	Il15	Interleukin 15
D02	Mm.1410	NM_008360	Il18	Interleukin 18
D03	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D04	Mm.1019	NM_031168	Il6	Interleukin 6
D05	Mm.38241	NM_008363	Irak1	Interleukin-1 receptor-associated kinase 1
D06	Mm.3960	NM_016849	Irf3	Interferon regulatory factor 3
D07	Mm.6479	NM_012057	Irf5	Interferon regulatory factor 5
D08	Mm.3233	NM_016850	Irf7	Interferon regulatory factor 7
D09	Mm.4950	NM_015783	Isg15	ISG15 ubiquitin-like modifier
D10	Mm.275071	NM_010591	Jun	Jun oncogene
D11	Mm.248907	NM_008927	Map2k1	Mitogen-activated protein kinase kinase 1
D12	Mm.18494	NM_008928	Map2k3	Mitogen-activated protein kinase kinase 3
E01	Mm.15918	NM_011945	Map3k1	Mitogen-activated protein kinase kinase kinase 1
E02	Mm.258589	NM_172688	Map3k7	Mitogen-activated protein kinase kinase kinase 7
E03	Mm.196581	NM_011949	Mapk1	Mitogen-activated protein kinase 1
E04	Mm.311337	NM_011951	Mapk14	Mitogen-activated protein kinase 14
E05	Mm.8385	NM_011952	Mapk3	Mitogen-activated protein kinase 3
E06	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
E07	Mm.287226	NM_144888	Mavs	Mitochondrial antiviral signaling protein
E08	Mm.143718	NM_019453	Mefv	Mediterranean fever
E09	Mm.33996	NM_010846	Mx1	Myxovirus (influenza virus) resistance 1

Position	UniGene	GenBank	Symbol	Description
E10	Mm.213003	NM_010851	Myd88	Myeloid differentiation primary response gene 88
E11	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E12	Mm.170515	NM_010907	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
F01	Mm.54174	NM_145827	Nlrp3	NLR family, pyrin domain containing 3
F02	Mm.222633	NM_145857	Nod2	Nucleotide-binding oligomerization domain containing 2
F03	Mm.260926	NM_145227	Oas2	2'-5' oligoadenylate synthetase 2
F04	Mm.7906	NM_023371	Pin1	Protein (peptidyl-prolyl cis/trans isomerase) NIMA-interacting 1
F05	Mm.2534	NM_011193	Pstpip1	Proline-serine-threonine phosphatase-interacting protein 1
F06	Mm.24163	NM_023258	Pycard	PYD and CARD domain containing
F07	Mm.249966	NM_009045	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F08	Mm.374799	NM_009068	Ripk1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
F09	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
F10	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
F11	Mm.18972	NM_026474	Sugt1	SGT1, suppressor of G2 allele of SKP1 (S. cerevisiae)
F12	Mm.244393	NM_011529	Tank	TRAF family member-associated Nf-kappa B activator
G01	Mm.34580	NM_019786	Tbk1	TANK-binding kinase 1
G02	Mm.27882	NM_198100	Tbkbp1	TBK1 binding protein 1
G03	Mm.203952	NM_174989	Ticam1	Toll-like receptor adaptor molecule 1
G04	Mm.33874	NM_126166	Tlr3	Toll-like receptor 3
G05	Mm.23979	NM_133211	Tlr7	Toll-like receptor 7
G06	Mm.196676	NM_133212	Tlr8	Toll-like receptor 8
G07	Mm.44889	NM_031178	Tlr9	Toll-like receptor 9
G08	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G09	Mm.264255	NM_001033161	Tradd	TNFRSF1A-associated via death domain
G10	Mm.27431	NM_011632	Traf3	Tnf receptor-associated factor 3
G11	Mm.292729	NM_009424	Traf6	Tnf receptor-associated factor 6
G12	Mm.248445	NM_009546	Trim25	Tripartite motif-containing 25
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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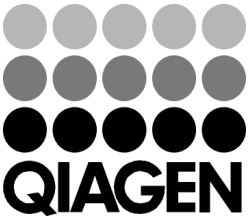

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