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

Mouse Inflammasomes

Cat. no. 330231 PAMM-097ZA

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 Mouse Inflammasomes RT² Profiler PCR Array profiles the expression of 84 key genes involved in the function of inflammasomes, protein complexes involved in innate immunity, as well as general NOD-like receptor (NLR) signaling. NLRs represent a major class of cytosolic pattern recognition receptors (PRR) that, like their cell-surface Toll-Like Receptor counterparts, recognize a wide variety of microbial pathogens and immunogenic biological products. Activation of one of four PRR family members (AIM2, NLRC4 or IPAF, NLRP1, and NLRP3) initiates the formation of an inflammasome. These protein complexes in turn activate caspase-1, leading to up-regulation of the pro-inflammatory cytokines IL1B and IL18 and pyroptosis, or caspase-1-dependent programmed cell death. This array includes genes encoding inflammasome components as well as genes involved in downstream signaling and inhibition of inflammasome function. In addition, this array includes other NLR family members, which may potentially form additional inflammasomes, and their downstream signaling genes. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in inflammasome and NLR function and signaling 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	Aim2	Bcl2	Bcl2l1	Birc2	Birc3	Card6	Casp1	Casp12	Casp8	Ccl12	Ccl5	Ccl7
B	Cd40lg	Cflar	Chuk	Ciita	Ctsb	Cxcl1	Cxcl3	Fadd	Hsp90aa1	Hsp90b1	Ifnb1	Ifng
C	Ikbkb	Ikbkg	Il12a	Il12b	Il18	Il1b	Il33	Il6	Irak1	Irf1	Irf3	Irf4
D	Map3k7	Mapk1	Mapk11	Mapk12	Mapk13	Mapk3	Mapk8	Mapk9	Mefv	Myd88	Naip1	Naip5
E	Nfkb1	Nfkbia	Nfkbib	Nlrc4	Nlrc5	Nlrp12	Nlrp1a	Nlrp3	Nlrp4b	Nlrp4e	Nlrp5	Nlrp6
F	Nlrp9b	Nlrx1	Nod1	Nod2	P2rx7	Panx1	Pea15a	Pstpip1	Ptgs2	Pycard	Rela	Ripk2
G	Stk30	Sugt1	Tab1	Tab2	Tirap	Tnf	Tnfsf11	Tnfsf14	Tnfsf4	Traf6	Txnip	Xiap
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.131453	NM_001013779	Aim2	Absent in melanoma 2
A02	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A03	Mm.238213	NM_009743	Bcl2l1	Bcl2-like 1
A04	Mm.335659	NM_007465	Birc2	Baculoviral IAP repeat-containing 2
A05	Mm.2026	NM_007464	Birc3	Baculoviral IAP repeat-containing 3
A06	Mm.31252	NM_001163138	Card6	Caspase recruitment domain family, member 6
A07	Mm.1051	NM_009807	Casp1	Caspase 1
A08	Mm.42163	NM_009808	Casp12	Caspase 12
A09	Mm.336851	NM_009812	Casp8	Caspase 8
A10	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
A11	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A12	Mm.341574	NM_013654	Ccl7	Chemokine (C-C motif) ligand 7
B01	Mm.4861	NM_011616	Cd40lg	CD40 ligand
B02	Mm.336848	NM_009805	Cflar	CASP8 and FADD-like apoptosis regulator
B03	Mm.3996	NM_007700	Chuk	Conserved helix-loop-helix ubiquitous kinase
B04	Mm.249560	NM_007575	Ciita	Class II transactivator
B05	Mm.236553	NM_007798	Ctsb	Cathepsin B
B06	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
B07	Mm.244289	NM_203320	Cxcl3	Chemokine (C-X-C motif) ligand 3
B08	Mm.5126	NM_010175	Fadd	Fas (TNFRSF6)-associated via death domain
B09	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
B10	Mm.87773	NM_011631	Hsp90b1	Heat shock protein 90, beta (Grp94), member 1
B11	Mm.1245	NM_010510	Ifnb1	Interferon beta 1, fibroblast
B12	Mm.240327	NM_008337	Ifng	Interferon gamma
C01	Mm.277886	NM_010546	Ikbkb	Inhibitor of kappaB kinase beta
C02	Mm.12967	NM_010547	Ikbkg	Inhibitor of kappaB kinase gamma
C03	Mm.103783	NM_008351	Il12a	Interleukin 12A
C04	Mm.239707	NM_008352	Il12b	Interleukin 12B
C05	Mm.1410	NM_008360	Il18	Interleukin 18
C06	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
C07	Mm.182359	NM_133775	Il33	Interleukin 33
C08	Mm.1019	NM_031168	Il6	Interleukin 6
C09	Mm.38241	NM_008363	Irak1	Interleukin-1 receptor-associated kinase 1
C10	Mm.105218	NM_008390	Irf1	Interferon regulatory factor 1
C11	Mm.3960	NM_016849	Irf3	Interferon regulatory factor 3
C12	Mm.4677	NM_013674	Irf4	Interferon regulatory factor 4
D01	Mm.258589	NM_172688	Map3k7	Mitogen-activated protein kinase kinase kinase 7
D02	Mm.196581	NM_011949	Mapk1	Mitogen-activated protein kinase 1
D03	Mm.91969	NM_011161	Mapk11	Mitogen-activated protein kinase 11
D04	Mm.38343	NM_013871	Mapk12	Mitogen-activated protein kinase 12
D05	Mm.27970	NM_011950	Mapk13	Mitogen-activated protein kinase 13
D06	Mm.8385	NM_011952	Mapk3	Mitogen-activated protein kinase 3
D07	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
D08	Mm.68933	NM_016961	Mapk9	Mitogen-activated protein kinase 9
D09	Mm.143718	NM_019453	Mefv	Mediterranean fever

Position	UniGene	GenBank	Symbol	Description
D10	Mm.213003	NM_010851	Myd88	Myeloid differentiation primary response gene 88
D11	Mm.6898	NM_008670	Naip1	NLR family, apoptosis inhibitory protein 1
D12	Mm.290476	NM_010870	Naip5	NLR family, apoptosis inhibitory protein 5
E01	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E02	Mm.170515	NM_010907	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E03	Mm.220333	NM_010908	Nfkbib	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, beta
E04	Mm.311884	NM_001033367	Nlrc4	NLR family, CARD domain containing 4
E05	Mm.426721	NM_001033207	Nlrc5	NLR family, CARD domain containing 5
E06	Mm.277152	NM_001033431	Nlrp12	NLR family, pyrin domain containing 12
E07	Mm.240227	NM_001004142	Nlrp1a	NLR family, pyrin domain containing 1A
E08	Mm.54174	NM_145827	Nlrp3	NLR family, pyrin domain containing 3
E09	Mm.95244	NM_172481	Nlrp4b	NLR family, pyrin domain containing 4B
E10	Mm.442342	NM_001004194	Nlrp4e	NLR family, pyrin domain containing 4E
E11	Mm.333653	NM_011860	Nlrp5	NLR family, pyrin domain containing 5
E12	Mm.386833	NM_001081389	Nlrp6	NLR family, pyrin domain containing 6
F01	Mm.277114	NM_194058	Nlrp9b	NLR family, pyrin domain containing 9B
F02	Mm.3957	NM_178420	Nlrx1	NLR family member X1
F03	Mm.28498	NM_172729	Nod1	Nucleotide-binding oligomerization domain containing 1
F04	Mm.222633	NM_145857	Nod2	Nucleotide-binding oligomerization domain containing 2
F05	Mm.42026	NM_011027	P2rx7	Purinergic receptor P2X, ligand-gated ion channel, 7
F06	Mm.142253	NM_019482	Panx1	Pannexin 1
F07	Mm.544	NM_011063	Pea15a	Phosphoprotein enriched in astrocytes 15A
F08	Mm.2534	NM_011193	Pstpip1	Proline-serine-threonine phosphatase-interacting protein 1
F09	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F10	Mm.24163	NM_023258	Pycard	PYD and CARD domain containing
F11	Mm.249966	NM_009045	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F12	Mm.112765	NM_138952	Ripk2	Receptor (TNFRSF)-interacting serine-threonine kinase 2
G01	Mm.140948	NM_011973	Stk30	Serine/threonine kinase 30
G02	Mm.18972	NM_026474	Sugt1	SGT1, suppressor of G2 allele of SKP1 (S. cerevisiae)
G03	Mm.288245	NM_025609	Tab1	TGF-beta activated kinase 1/MAP3K7 binding protein 1
G04	Mm.193041	NM_138667	Tab2	TGF-beta activated kinase 1/MAP3K7 binding protein 2
G05	Mm.23987	NM_054096	Tirap	Toll-interleukin 1 receptor (TIR) domain-containing adaptor protein
G06	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G07	Mm.249221	NM_011613	Tnfsf11	Tumor necrosis factor (ligand) superfamily, member 11
G08	Mm.483369	NM_019418	Tnfsf14	Tumor necrosis factor (ligand) superfamily, member 14
G09	Mm.4994	NM_009452	Tnfsf4	Tumor necrosis factor (ligand) superfamily, member 4
G10	Mm.292729	NM_009424	Traf6	Tnf receptor-associated factor 6
G11	Mm.410189	NM_023719	Txnip	Thioredoxin interacting protein
G12	Mm.259879	NM_009688	Xiap	X-linked inhibitor of apoptosis
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 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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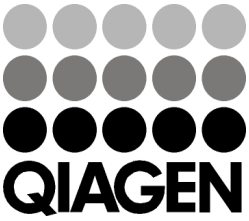

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