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

Mouse Heat Shock Proteins & Chaperones

Cat. no. 330231 PAMM-076ZA

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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Sample & Assay Technologies

Description

The Mouse Heat Shock Proteins & Chaperones RT² Profiler PCR Array profiles the expression of 84 Heat Shock Protein genes that regulate protein folding. Heat shock proteins (HSPs, or molecular chaperones) are important components of cellular networks. HSPs can either aid in the folding and maintenance of newly translated proteins or they can lead to the degradation of misfolded and destabilized proteins. Included on this PCR Array are HSP90 (81 to 99 kD), HSP70 (65 to 80 kD), HSP60 (55 to 64 kD), HSP40 (35 to 54 kD), small HSPs (=34 kD) and other chaperone cofactors that are directly involved in the response to unfolded/misfolded proteins or that are involved in protein folding in general. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of heat shock proteins and chaperones 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	Adck3	Atf6	Bag1	Bag2	Bag3	Bag4	Bag5	Ccs	Cct2	Cct3	Cct4	Cct5
B	Cct6a	Cct6b	Cct7	Cryaa	Cryab	Dnaja1	Dnaja2	Dnaja3	Dnaja4	Dnajb1	Dnajb11	Dnajb12
C	Dnajb13	Dnajb14	Dnajb2	Dnajb5	Dnajb6	Dnajb7	Dnajb8	Dnajb9	Dnajc1	Dnajc10	Dnajc11	Dnajc12
D	Dnajc13	Dnajc14	Dnajc15	Dnajc16	Dnajc17	Dnajc18	Dnajc19	Dnajc21	Dnajc3	Dnajc4	Dnajc5	Dnajc5b
E	Dnajc5g	Dnajc6	Dnajc7	Dnajc8	Dnajc9	Hsf1	Hsf2	Hsf4	Hsp90aa1	Hsp90ab1	Hsp90b1	Hspa14
F	Hspa1a	Hspa1b	Hspa1l	Hspa2	Hspa4	Hspa4l	Hspa5	Hspa8	Hspa9	Hspb1	Hspb2	Hspb3
G	Hspb6	Hspb7	Hspb8	Hspd1	Hspe1	Hsph1	Pfdn1	Pfdn2	Serpinh1	Sil1	Tcp1	Tor1a
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.38330	NM_023341	Adck3	AarF domain containing kinase 3
A02	Mm.377046	NM_001081304	Atf6	Activating transcription factor 6
A03	Mm.688	NM_009736	Bag1	Bcl2-associated athanogene 1
A04	Mm.247037	NM_145392	Bag2	Bcl2-associated athanogene 2
A05	Mm.84073	NM_013863	Bag3	Bcl2-associated athanogene 3
A06	Mm.118400	NM_026121	Bag4	BCL2-associated athanogene 4
A07	Mm.44239	NM_027404	Bag5	BCL2-associated athanogene 5
A08	Mm.434411	NM_016892	Ccs	Copper chaperone for superoxide dismutase
A09	Mm.247788	NM_007636	Cct2	Chaperonin containing Tcp1, subunit 2 (beta)
A10	Mm.256034	NM_009836	Cct3	Chaperonin containing Tcp1, subunit 3 (gamma)
A11	Mm.296985	NM_009837	Cct4	Chaperonin containing Tcp1, subunit 4 (delta)
A12	Mm.282158	NM_007637	Cct5	Chaperonin containing Tcp1, subunit 5 (epsilon)
B01	Mm.360232	NM_009838	Cct6a	Chaperonin containing Tcp1, subunit 6a (zeta)
B02	Mm.4126	NM_009839	Cct6b	Chaperonin containing Tcp1, subunit 6b (zeta)
B03	Mm.289900	NM_007638	Cct7	Chaperonin containing Tcp1, subunit 7 (eta)
B04	Mm.1228	NM_013501	Cryaa	Crystallin, alpha A
B05	Mm.178	NM_009964	Cryab	Crystallin, alpha B
B06	Mm.27897	NM_008298	Dnaja1	DnaJ (Hsp40) homolog, subfamily A, member 1
B07	Mm.475573	NM_019794	Dnaja2	DnaJ (Hsp40) homolog, subfamily A, member 2
B08	Mm.325524	NM_023646	Dnaja3	DnaJ (Hsp40) homolog, subfamily A, member 3
B09	Mm.28437	NM_021422	Dnaja4	DnaJ (Hsp40) homolog, subfamily A, member 4
B10	Mm.282092	NM_018808	Dnajb1	DnaJ (Hsp40) homolog, subfamily B, member 1
B11	Mm.37516	NM_026400	Dnajb11	DnaJ (Hsp40) homolog, subfamily B, member 11
B12	Mm.103610	NM_019965	Dnajb12	DnaJ (Hsp40) homolog, subfamily B, member 12
C01	Mm.278554	NM_153527	Dnajb13	DnaJ (Hsp40) related, subfamily B, member 13
C02	Mm.256488	NM_001033155	Dnajb14	DnaJ (Hsp40) homolog, subfamily B, member 14
C03	Mm.248776	NM_178055	Dnajb2	DnaJ (Hsp40) homolog, subfamily B, member 2
C04	Mm.20437	NM_019874	Dnajb5	DnaJ (Hsp40) homolog, subfamily B, member 5
C05	Mm.290110	NM_011847	Dnajb6	DnaJ (Hsp40) homolog, subfamily B, member 6
C06	Mm.440590	NM_021317	Dnajb7	DnaJ (Hsp40) homolog, subfamily B, member 7
C07	Mm.272871	NM_019964	Dnajb8	DnaJ (Hsp40) homolog, subfamily B, member 8
C08	Mm.27432	NM_013760	Dnajb9	DnaJ (Hsp40) homolog, subfamily B, member 9
C09	Mm.246674	NM_007869	Dnajc1	DnaJ (Hsp40) homolog, subfamily C, member 1
C10	Mm.21762	NM_024181	Dnajc10	DnaJ (Hsp40) homolog, subfamily C, member 10
C11	Mm.21353	NM_172704	Dnajc11	DnaJ (Hsp40) homolog, subfamily C, member 11
C12	Mm.32550	NM_013888	Dnajc12	DnaJ (Hsp40) homolog, subfamily C, member 12
D01	Mm.217256	NM_001163026	Dnajc13	DnaJ (Hsp40) homolog, subfamily C, member 13
D02	Mm.296915	NM_028873	Dnajc14	DnaJ (Hsp40) homolog, subfamily C, member 14
D03	Mm.248046	NM_025384	Dnajc15	DnaJ (Hsp40) homolog, subfamily C, member 15
D04	Mm.39102	NM_172338	Dnajc16	DnaJ (Hsp40) homolog, subfamily C, member 16
D05	Mm.222241	NM_139139	Dnajc17	DnaJ (Hsp40) homolog, subfamily C, member 17
D06	Mm.108596	NM_029669	Dnajc18	DnaJ (Hsp40) homolog, subfamily C, member 18
D07	Mm.274266	NM_026332	Dnajc19	DnaJ (Hsp40) homolog, subfamily C, member 19
D08	Mm.297862	NM_030046	Dnajc21	DnaJ (Hsp40) homolog, subfamily C, member 21
D09	Mm.12616	NM_008929	Dnajc3	DnaJ (Hsp40) homolog, subfamily C, member 3

Position	UniGene	GenBank	Symbol	Description
D10	Mm.10721	NM_020566	Dnajc4	DnaJ (Hsp40) homolog, subfamily C, member 4
D11	Mm.140761	NM_016775	Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5
D12	Mm.45615	NM_025489	Dnajc5b	DnaJ (Hsp40) homolog, subfamily C, member 5 beta
E01	Mm.189696	NM_177677	Dnajc5g	DnaJ (Hsp40) homolog, subfamily C, member 5 gamma
E02	Mm.76494	NM_198412	Dnajc6	DnaJ (Hsp40) homolog, subfamily C, member 6
E03	Mm.402409	NM_019795	Dnajc7	DnaJ (Hsp40) homolog, subfamily C, member 7
E04	Mm.29685	NM_172400	Dnajc8	DnaJ (Hsp40) homolog, subfamily C, member 8
E05	Mm.2871	NM_134081	Dnajc9	DnaJ (Hsp40) homolog, subfamily C, member 9
E06	Mm.347444	NM_008296	Hsf1	Heat shock factor 1
E07	Mm.261395	NM_008297	Hsf2	Heat shock factor 2
E08	Mm.89204	NM_011939	Hsf4	Heat shock transcription factor 4
E09	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
E10	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
E11	Mm.87773	NM_011631	Hsp90b1	Heat shock protein 90, beta (Grp94), member 1
E12	Mm.89341	NM_015765	Hspa14	Heat shock protein 14
F01	Mm.6388	NM_010479	Hspa1a	Heat shock protein 1A
F02	Mm.372314	NM_010478	Hspa1b	Heat shock protein 1B
F03	Mm.14287	NM_013558	Hspa1l	Heat shock protein 1-like
F04	Mm.296181	NM_008301	Hspa2	Heat shock protein 2
F05	Mm.239865	NM_008300	Hspa4	Heat shock protein 4
F06	Mm.39330	NM_011020	Hspa4l	Heat shock protein 4 like
F07	Mm.330160	NM_022310	Hspa5	Heat shock protein 5
F08	Mm.336743	NM_031165	Hspa8	Heat shock protein 8
F09	Mm.209419	NM_010481	Hspa9	Heat shock protein 9
F10	Mm.13849	NM_013560	Hspb1	Heat shock protein 1
F11	Mm.1980	NM_024441	Hspb2	Heat shock protein 2
F12	Mm.41410	NM_019960	Hspb3	Heat shock protein 3
G01	Mm.34885	NM_001012401	Hspb6	Heat shock protein, alpha-crystallin-related, B6
G02	Mm.46181	NM_013868	Hspb7	Heat shock protein family, member 7 (cardiovascular)
G03	Mm.21549	NM_030704	Hspb8	Heat shock protein 8
G04	Mm.1777	NM_010477	Hspd1	Heat shock protein 1 (chaperonin)
G05	Mm.215667	NM_008303	Hspe1	Heat shock protein 1 (chaperonin 10)
G06	Mm.270681	NM_013559	Hsph1	Heat shock 105kDa/110kDa protein 1
G07	Mm.30184	NM_026027	Pfdn1	Prefoldin 1
G08	Mm.10756	NM_011070	Pfdn2	Prefoldin 2
G09	Mm.22708	NM_009825	Serpinh1	Serine (or cysteine) peptidase inhibitor, clade H, member 1
G10	Mm.291482	NM_030749	Sil1	Endoplasmic reticulum chaperone SIL1 homolog (S. cerevisiae)
G11	Mm.439645	NM_013686	Tcp1	T-complex protein 1
G12	Mm.154994	NM_144884	Tor1a	Torsin family 1, member A (torsin A)
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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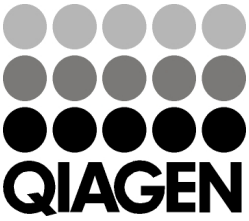

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