

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

Mouse Cellular Stress Responses

Cat. no. 330231 PAMM-019ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² 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
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT ² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

Description

The Mouse Cellular Stress Responses RT² Profiler PCR Array profiles the expression of 84 genes involved in cellular stress response. This array includes genes encoding antioxidant and pro-oxidant enzymes, molecular chaperones and proteins involved in xenobiotic metabolism. Representative heat shock proteins and cytochrome P450 genes are also included. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to cellular stress response 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	Acadsb	Bag1	Calr	Canx	Cat	Cct2	Cct3	Cct4	Cct5	Cct7	Cct8	Ces1g
B	Clu	Cryaa	Cryab	Cyp11a1	Cyp11b2	Cyp17a1	Cyp1a1	Cyp1a2	Cyp1b1	Cyp2c29	Cyp2c38	Cyp2d22
C	Cyp2e1	Cyp2f2	Cyp4a10	Cyp4b1	Cyp7a1	Cyp7b1	Dnaja1	Dnaja2	Dnaja3	Dnaja4	Dnajb1	Dnajb11
D	Dnajb12	Dnajb2	Dnajb4	Dnajb5	Dnajb6	Dnajb9	Dnajc1	Dnajc4	Dnajc5	Dnajc6	Dnajc7	Dnajc8
E	Dnajc9	Ephx2	Fmo1	Fmo4	Fmo5	Gpx1	Gpx2	Gsr	Gsta1	Gstk1	Gstm1	Gsta1
F	Hmax1	Hmax2	Hapx	Hspa12a	Hspa1a	Hspa1l	Hspa2	Hspa4	Hspa5	Hspa8	Hspa9	Hspb1
G	Hspb2	Hspb3	Hspd1	Hspe1	Ppid	Serpinh1	Sod1	Sod2	Sod3	Stt3	Tcp1	Xdh
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.334274	NM_025826	Acadsb	Acyl-Coenzyme A dehydrogenase, short/branched chain
A02	Mm.688	NM_009736	Bag1	Bcl2-associated athanogene 1
A03	Mm.1971	NM_007591	Calr	Calreticulin
A04	Mm.248827	NM_007597	Canx	Calnexin
A05	Mm.4215	NM_009804	Cat	Catalase
A06	Mm.247788	NM_007636	Cct2	Chaperonin containing Tcp1, subunit 2 (beta)
A07	Mm.256034	NM_009836	Cct3	Chaperonin containing Tcp1, subunit 3 (gamma)
A08	Mm.296985	NM_009837	Cct4	Chaperonin containing Tcp1, subunit 4 (delta)
A09	Mm.282158	NM_007637	Cct5	Chaperonin containing Tcp1, subunit 5 (epsilon)
A10	Mm.289900	NM_007638	Cct7	Chaperonin containing Tcp1, subunit 7 (eta)
A11	Mm.328673	NM_009840	Cct8	Chaperonin containing Tcp1, subunit 8 (theta)
A12	Mm.22720	NM_021456	Ces1g	Carboxylesterase 1G
B01	Mm.200608	NM_013492	Clu	Clusterin
B02	Mm.1228	NM_013501	Cryaa	Crystallin, alpha A
B03	Mm.178	NM_009964	Cryab	Crystallin, alpha B
B04	Mm.302865	NM_019779	Cyp11a1	Cytochrome P450, family 11, subfamily a, polypeptide 1
B05	Mm.377079	NM_009991	Cyp11b2	Cytochrome P450, family 11, subfamily b, polypeptide 2
B06	Mm.1262	NM_007809	Cyp17a1	Cytochrome P450, family 17, subfamily a, polypeptide 1
B07	Mm.14089	NM_009992	Cyp1a1	Cytochrome P450, family 1, subfamily a, polypeptide 1
B08	Mm.15537	NM_009993	Cyp1a2	Cytochrome P450, family 1, subfamily a, polypeptide 2
B09	Mm.214016	NM_009994	Cyp1b1	Cytochrome P450, family 1, subfamily b, polypeptide 1
B10	Mm.20764	NM_007815	Cyp2c29	Cytochrome P450, family 2, subfamily c, polypeptide 29
B11	Mm.42100	NM_010002	Cyp2c38	Cytochrome P450, family 2, subfamily c, polypeptide 38
B12	Mm.474216	NM_019823	Cyp2d22	Cytochrome P450, family 2, subfamily d, polypeptide 22
C01	Mm.21758	NM_021282	Cyp2e1	Cytochrome P450, family 2, subfamily e, polypeptide 1
C02	Mm.4515	NM_007817	Cyp2f2	Cytochrome P450, family 2, subfamily f, polypeptide 2
C03	Mm.10742	NM_010011	Cyp4a10	Cytochrome P450, family 4, subfamily a, polypeptide 10
C04	Mm.1840	NM_007823	Cyp4b1	Cytochrome P450, family 4, subfamily b, polypeptide 1
C05	Mm.57029	NM_007824	Cyp7a1	Cytochrome P450, family 7, subfamily a, polypeptide 1
C06	Mm.316000	NM_007825	Cyp7b1	Cytochrome P450, family 7, subfamily b, polypeptide 1
C07	Mm.27897	NM_008298	Dnaja1	DnaJ (Hsp40) homolog, subfamily A, member 1
C08	Mm.475573	NM_019794	Dnaja2	DnaJ (Hsp40) homolog, subfamily A, member 2
C09	Mm.325524	NM_023646	Dnaja3	DnaJ (Hsp40) homolog, subfamily A, member 3
C10	Mm.28437	NM_021422	Dnaja4	DnaJ (Hsp40) homolog, subfamily A, member 4
C11	Mm.282092	NM_018808	Dnajb1	DnaJ (Hsp40) homolog, subfamily B, member 1
C12	Mm.37516	NM_026400	Dnajb11	DnaJ (Hsp40) homolog, subfamily B, member 11
D01	Mm.103610	NM_019965	Dnajb12	DnaJ (Hsp40) homolog, subfamily B, member 12
D02	Mm.248776	NM_178055	Dnajb2	DnaJ (Hsp40) homolog, subfamily B, member 2
D03	Mm.458538	NM_025926	Dnajb4	DnaJ (Hsp40) homolog, subfamily B, member 4
D04	Mm.20437	NM_019874	Dnajb5	DnaJ (Hsp40) homolog, subfamily B, member 5
D05	Mm.290110	NM_011847	Dnajb6	DnaJ (Hsp40) homolog, subfamily B, member 6
D06	Mm.27432	NM_013760	Dnajb9	DnaJ (Hsp40) homolog, subfamily B, member 9
D07	Mm.246674	NM_007869	Dnajc1	DnaJ (Hsp40) homolog, subfamily C, member 1
D08	Mm.10721	NM_020566	Dnajc4	DnaJ (Hsp40) homolog, subfamily C, member 4
D09	Mm.140761	NM_016775	Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5

Position	UniGene	GenBank	Symbol	Description
D10	Mm.76494	NM_198412	Dnajc6	DnaJ (Hsp40) homolog, subfamily C, member 6
D11	Mm.402409	NM_019795	Dnajc7	DnaJ (Hsp40) homolog, subfamily C, member 7
D12	Mm.29685	NM_172400	Dnajc8	DnaJ (Hsp40) homolog, subfamily C, member 8
E01	Mm.2871	NM_134081	Dnajc9	DnaJ (Hsp40) homolog, subfamily C, member 9
E02	Mm.15295	NM_007940	Ephx2	Epoxide hydrolase 2, cytoplasmic
E03	Mm.976	NM_010231	Fmo1	Flavin containing monooxygenase 1
E04	Mm.155164	NM_144878	Fmo4	Flavin containing monooxygenase 4
E05	Mm.385180	NM_010232	Fmo5	Flavin containing monooxygenase 5
E06	Mm.1090	NM_008160	Gpx1	Glutathione peroxidase 1
E07	Mm.441856	NM_030677	Gpx2	Glutathione peroxidase 2
E08	Mm.283573	NM_010344	Gsr	Glutathione reductase
E09	Mm.467426	NM_008181	Gsta1	Glutathione S-transferase, alpha 1 (Ya)
E10	Mm.267014	NM_029555	Gstk1	Glutathione S-transferase kappa 1
E11	Mm.37199	NM_010358	Gstm1	Glutathione S-transferase, mu 1
E12	Mm.378931	NM_010362	Gsto1	Glutathione S-transferase omega 1
F01	Mm.276389	NM_010442	Hmox1	Heme oxygenase (decycling) 1
F02	Mm.272866	NM_010443	Hmox2	Heme oxygenase (decycling) 2
F03	Mm.181852	NM_175606	Hopx	HOP homeobox
F04	Mm.39739	NM_175199	Hspa12a	Heat shock protein 12A
F05	Mm.6388	NM_010479	Hspa1a	Heat shock protein 1A
F06	Mm.14287	NM_013558	Hspa1l	Heat shock protein 1-like
F07	Mm.296181	NM_008301	Hspa2	Heat shock protein 2
F08	Mm.239865	NM_008300	Hspa4	Heat shock protein 4
F09	Mm.330160	NM_022310	Hspa5	Heat shock protein 5
F10	Mm.336743	NM_031165	Hspa8	Heat shock protein 8
F11	Mm.209419	NM_010481	Hspa9	Heat shock protein 9
F12	Mm.13849	NM_013560	Hspb1	Heat shock protein 1
G01	Mm.1980	NM_024441	Hspb2	Heat shock protein 2
G02	Mm.41410	NM_019960	Hspb3	Heat shock protein 3
G03	Mm.1777	NM_010477	Hspd1	Heat shock protein 1 (chaperonin)
G04	Mm.215667	NM_008303	Hspe1	Heat shock protein 1 (chaperonin 10)
G05	Mm.295252	NM_026352	Ppid	Peptidylprolyl isomerase D (cyclophilin D)
G06	Mm.22708	NM_009825	Serpinh1	Serine (or cysteine) peptidase inhibitor, clade H, member 1
G07	Mm.276325	NM_011434	Sod1	Superoxide dismutase 1, soluble
G08	Mm.290876	NM_013671	Sod2	Superoxide dismutase 2, mitochondrial
G09	Mm.2407	NM_011435	Sod3	Superoxide dismutase 3, extracellular
G10	Mm.180337	NM_133726	St13	Suppression of tumorigenicity 13
G11	Mm.439645	NM_013686	Tcp1	T-complex protein 1
G12	Mm.11223	NM_011723	Xdh	Xanthine dehydrogenase
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.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² 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
RT ² 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
RT ² 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.

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