

# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene<sup>®</sup> Format)

## Mouse Cellular Stress Responses

Cat. no. 330231 PAMM-019ZR

### For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

### Description

The Mouse Cellular Stress Responses RT<sup>2</sup> 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 *RT<sup>2</sup> Profiler PCR Array Handbook*.

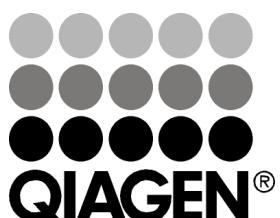
### Shipping and storage

RT<sup>2</sup> 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 RT<sup>2</sup> 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: RT<sup>2</sup> 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	Cat2	Chaperonin containing Tcp1, subunit 2 (beta)
A07	Mm.256034	NM_009836	Cat3	Chaperonin containing Tcp1, subunit 3 (gamma)
A08	Mm.296985	NM_009837	Cat4	Chaperonin containing Tcp1, subunit 4 (delta)
A09	Mm.282158	NM_007637	Cat5	Chaperonin containing Tcp1, subunit 5 (epsilon)
A10	Mm.289900	NM_007638	Cat7	Chaperonin containing Tcp1, subunit 7 (eta)
A11	Mm.328673	NM_009840	Cat8	Chaperonin containing Tcp1, subunit 8 (theta)
A12	Mm.22720	NM_021456	Ces1g	Carboxylesterase 1G
B01	Mm.200608	NM_013492	Clu	Cluterin
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
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 (Yα)

Position	UniGene	GenBank	Symbol	Description
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	Gstf1	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	Hspa11	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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> SYBR Green ROX <sup>™</sup> 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.

RT<sup>2</sup> 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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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