

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

## Chinese Hamster Ovary (CHO) Cell Cellular Stress Responses

Cat. no. 330231 PAJJ-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 Chinese Hamster Ovary (CHO) Cell 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 cyclers (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.

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## Gene table: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
1	N/A	XM_007630591	Acadsb	Acyl-Coenzyme A dehydrogenase, short/branched chain
2	N/A	XM_003511965	Bag1	BCL2-associated athanogene
3	N/A	XM_003497440	Cat	Catalase
4	N/A	XM_003508401	Cct2	T-complex protein 1 subunit beta-like
5	N/A	XM_003502911	Cct3	T-complex protein 1 subunit gamma-like
6	N/A	XM_003502149	Cct4	Chaperonin containing Tcp1, subunit 4 (delta)
7	N/A	XM_003500132	Cct5	T-complex protein 1 subunit epsilon-like
8	N/A	XM_007630402	Cct7	T-complex protein 1 subunit eta-like
9	N/A	XM_007621062	Cct8	T-complex protein 1 subunit theta-like
10	N/A	XM_003501313	Cct8l2	Putative T-complex protein 1 subunit theta-like 2-like
11	N/A	XM_003503623	Ces1	Liver carboxylesterase 1-like
12	N/A	XM_003505153	Clu	Clusterin-like
13	N/A	XM_003504447	Cryaa	Alpha-crystallin A chain-like
14	N/A	XM_007620924	Cryab	Alpha-crystallin B chain-like
15	N/A	NM_001244021	Cyp2a14	Cytochrome P-450 2A14
16	N/A	NM_001244023	Cyp2a15	Cytochrome P450 2A15
17	N/A	NM_001244022	Cyp2a17	Cytochrome P450 2A17
18	N/A	NM_001244401	Cyp7a1	Cytochrome P450, family 7, subfamily a, polypeptide 1
19	N/A	XM_007627381	Dnaja1	DnaJ (Hsp40) homolog, subfamily A, member 1
20	N/A	XM_007631435	Dnaja2	DnaJ homolog subfamily A member 2-like
21	N/A	XM_003506349	Dnaja3	DnaJ (Hsp40) homolog, subfamily A, member 3
22	N/A	XM_007617879	Dnaja4	DnaJ homolog subfamily A member 4-like
23	N/A	XM_003501888	Dnajb1	DnaJ homolog subfamily B member 1-like
24	N/A	XM_007637291	Dnajb11	DnaJ homolog subfamily B member 11-like
25	N/A	XM_007613556	Dnajb12	DnaJ (Hsp40) homolog, subfamily B, member 12
26	N/A	XM_007616047	Dnajb2	DnaJ homolog subfamily B member 2-like
27	N/A	XM_003496433	Dnajb4	DnaJ (Hsp40) homolog, subfamily B, member 4
28	N/A	XM_007630909	Dnajb6	DnaJ homolog subfamily B member 6-like
29	N/A	XM_003497996	Dnajb9	DnaJ homolog subfamily B member 9-like
30	N/A	XM_003499419	Dnajc1	DnaJ (Hsp40) homolog, subfamily C, member 1
31	N/A	XM_003497626	Dnajc13	DnaJ homolog subfamily C member 13-like
32	N/A	XM_003511541	Dnajc16	DnaJ homolog subfamily C member 16-like
33	N/A	XM_007633017	Dnajc2	DnaJ homolog subfamily C member 2-like
34	N/A	XM_007626048	Dnajc21	DnaJ homolog subfamily C member 21-like
35	N/A	XM_007618414	Dnajc25	DnaJ homolog subfamily C member 25-like
36	N/A	XM_003511268	Dnajc4	DnaJ homolog subfamily C member 4-like
37	N/A	XM_003503142	Dnajc5	DnaJ homolog subfamily C member 5-like
38	N/A	XM_007632622	Dnajc6	DnaJ (Hsp40) homolog, subfamily C, member 6

Position	UniGene	GenBank	Symbol	Description
39	N/A	XM_003504638	Dnajc7	DnaJ (Hsp40) homolog, subfamily C, member 7
40	N/A	XM_003498383	Dnajc8	DnaJ homolog subfamily C member 8-like
41	N/A	XM_003509505	Dnajc9	DnaJ homolog subfamily C member 9-like
42	N/A	XM_003505156	Ephx2	Epoxide hydrolase 2, cytoplasmic
43	N/A	XM_003505524	Fmo1	Flavin containing monooxygenase 1
44	N/A	XM_007629955	Fmo4	Dimethylaniline monooxygenase [N-oxide-forming] 4-like
45	N/A	XM_003505392	Fmo5	Flavin containing monooxygenase 5
46	N/A	NM_001256788	Gpx1	Glutathione peroxidase 1-like
47	N/A	NM_001256806	Gpx2	Glutathione peroxidase 2-like
48	N/A	XM_003499652	Gsr	Glutathione reductase, mitochondrial-like
49	N/A	XM_007626822	Gstk1	Glutathione S-transferase kappa 1
50	N/A	XM_003515237	Gstm3	Glutathione S-transferase Mu 5-like
51	N/A	XM_003515043	Gsto1	Glutathione S-transferase omega-1-like
52	N/A	NM_001246744	Gstp1	Glutathione S-transferase, pi 1
53	N/A	XM_007626555	Gstz1	Maleylacetoacetate isomerase-like
54	N/A	XM_003511957	Hmox1	Heme oxygenase 1-like
55	N/A	XM_003506347	Hmox2	Heme oxygenase 2-like
56	N/A	XM_007607785	Hopx	Uncharacterized LOC100757669
57	N/A	XM_003514976	Hspa12a	Heat shock protein 12A
58	N/A	XM_003496418	Hspa14	Heat shock protein 14
59	N/A	XM_003508473	Hspa1a	Heat shock 70 kDa protein 1A/1B-like
60	N/A	XM_003499312	Hspa2	Heat shock-related 70 kDa protein 2-like
61	N/A	XM_007613014	Hspa4	Heat shock 70 kDa protein 4-like
62	N/A	NM_001246729	Hspa8	Heat shock protein 8
63	N/A	XM_007624260	Hspb1	Uncharacterized LOC100763481
64	N/A	XM_003498527	Hspb2	Heat shock protein beta-2-like
65	N/A	XM_003507293	Hspb3	Heat shock protein beta-3-like
66	N/A	XM_007628174	LOC100750493	DnaJ homolog subfamily B member 5
67	N/A	XM_003502386	LOC100751269	Cytochrome P450 1A1-like
68	N/A	XM_003513513	LOC100753172	Glutathione S-transferase alpha-5-like
69	N/A	XM_003513589	LOC100754177	Cytochrome P450 2C19-like
70	N/A	XM_007615189	LOC100755851	Cytochrome P450 1A2-like
71	N/A	XM_003508069	LOC100757240	Cytochrome P450 2C29
72	N/A	XM_003515768	LOC100757858	Glutathione S-transferase Mu 1-like
73	N/A	XM_007613337	LOC100759241	Cytochrome P450 1B1
74	N/A	XM_003514329	LOC100765891	Cytochrome P450 2E1-like
75	N/A	XM_003514941	LOC100766772	Glutathione S-transferase Y1-like
76	N/A	XM_007636049	LOC107977023	Cytochrome P450 11B2, mitochondrial
77	N/A	XM_003497349	LOC100769255	Cytochrome P450 4B1-like
78	N/A	NM_001246760	Serpinh1	Serine (or cysteine) peptidase inhibitor, clade H, member 1

Position	UniGene	GenBank	Symbol	Description
79	N/A	XM_007621104	Sod1	Superoxide dismutase [Cu-Zn]-like
80	N/A	XM_003507569	Sod2	Superoxide dismutase [Mn], mitochondrial-like
81	N/A	XM_003512803	Sod3	Extracellular superoxide dismutase [Cu-Zn]-like
82	N/A	XM_003510309	Stt3	Hsc70-interacting protein-like
83	N/A	NM_001246733	Tcp1	T-complex protein 1
84	N/A	XM_003510086	Xdh	Xanthine dehydrogenase/oxidase-like
85	N/A	NM_001244575	Actb	Actin, beta
86	N/A	XM_007607973	Actr5	ARP5 actin-related protein 5 homolog (yeast)
87	N/A	NM_001246674	B2m	Beta-2 microglobulin
88	N/A	NM_001244854	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
89	N/A	XM_007623161	Hprt1	Hypoxanthine-guanine phosphoribosyltransferase-like
90	N/A	SA_00519	JGDC	Hamster Genomic DNA Contamination
91	N/A	SA_00104	RTC	Reverse Transcription Control
92	N/A	SA_00104	RTC	Reverse Transcription Control
93	N/A	SA_00104	RTC	Reverse Transcription Control
94	N/A	SA_00103	PPC	Positive PCR Control
95	N/A	SA_00103	PPC	Positive PCR Control
96	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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