

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

Chinese hamster Cellular Stress Responses

Cat. no. 330231 PAJJ-019Z

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 Chinese hamster 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	Cat	Cct2	Cct3	Cct4	Cct5	Cct7	Cct8	Cct8l2	Ces1	Clu
B	Cryaa	Cryab	Cyp2a14	Cyp2a15	Cyp2a17	Cyp7a1	Dnaja1	Dnaja2	Dnaja3	Dnaja4	Dnajb1	Dnajb11
C	Dnajb12	Dnajb2	Dnajb4	Dnajb6	Dnajb9	Dnajc1	Dnajc13	Dnajc16	Dnajc2	Dnajc21	Dnajc25	Dnajc4
D	Dnajc5	Dnajc6	Dnajc7	Dnajc8	Dnajc9	Eph2	Fmo1	Fmo4	Fmo5	Gpx1	Gpx2	Gsr
E	Gstk1	Gstm3	Gsto1	Gstp1	Gatz1	Hmax1	Hmax2	Hapx	Hspa12a	Hspa14	Hspa1a	Hspa2
F	Hspa4	Hspa8	Hspb1	Hspb2	Hspb3	LOC1007504 93	LOC1007512 69	LOC1007531 72	LOC1007541 77	LOC1007558 51	LOC1007572 40	LOC1007578 58
G	LOC1007592 41	LOC1007658 91	LOC1007667 72	LOC1079770 23	LOC1007692 55	Serpinh1	Sod1	Sod2	Sod3	Sl13	Tcp1	Xdh
H	Actb	Actr5	B2m	Gapdh	Hprt1	JGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description	Assay
A01	N/A	XM_007630591	Acadsb	Acyl-Coenzyme A dehydrogenase, short/branched chain	PPJ03625A
A02	N/A	XM_003511965	Bag1	BCL2-associated athanogene	PPJ09963A
A03	N/A	XM_003497440	Cat	Catalase	PPJ04961A
A04	N/A	XM_003508401	Cct2	T-complex protein 1 subunit beta-like	PPJ09804A
A05	N/A	XM_003502911	Cct3	T-complex protein 1 subunit gamma-like	PPJ07826A
A06	N/A	XM_003502149	Cct4	Chaperonin containing Tcp1, subunit 4 (delta)	PPJ03835A
A07	N/A	XM_003500132	Cct5	T-complex protein 1 subunit epsilon-like	PPJ08772A
A08	N/A	XM_007630402	Cct7	T-complex protein 1 subunit eta-like	PPJ15225A
A09	N/A	XM_007621062	Cct8	T-complex protein 1 subunit theta-like	PPJ10710A
A10	N/A	XM_003501313	Cct8l2	Putative T-complex protein 1 subunit theta-like 2-like	PPJ13569A
A11	N/A	XM_003503623	Ces1	Liver carboxylesterase 1-like	PPJ10921A
A12	N/A	XM_003505153	Clu	Clusterin-like	PPJ08454A
B01	N/A	XM_003504447	Cryaa	Alpha-crystallin A chain-like	PPJ11476A
B02	N/A	XM_007620924	Cryab	Alpha-crystallin B chain-like	PPJ16120A
B03	N/A	NM_001244021	Cyp2a14	Cytochrome P-450 2A14	PPJ00033A
B04	N/A	NM_001244023	Cyp2a15	Cytochrome P450 2A15	PPJ00035A
B05	N/A	NM_001244022	Cyp2a17	Cytochrome P450 2A17	PPJ00034A
B06	N/A	NM_001244401	Cyp7a1	Cytochrome P450, family 7, subfamily a, polypeptide 1	PPJ00161A
B07	N/A	XM_007627381	Dnaja1	DnaJ (Hsp40) homolog, subfamily A, member 1	PPJ00249A
B08	N/A	XM_007631435	Dnaja2	DnaJ homolog subfamily A member 2-like	PPJ13405A
B09	N/A	XM_003506349	Dnaja3	DnaJ (Hsp40) homolog, subfamily A, member 3	PPJ05056A
B10	N/A	XM_007617879	Dnaja4	DnaJ homolog subfamily A member 4-like	PPJ07721A
B11	N/A	XM_003501888	Dnajb1	DnaJ homolog subfamily B member 1-like	PPJ07126A
B12	N/A	XM_007637291	Dnajb11	DnaJ homolog subfamily B member 11-like	PPJ12817A
C01	N/A	XM_007613556	Dnajb12	DnaJ (Hsp40) homolog, subfamily B, member 12	PPJ02259A
C02	N/A	XM_007616047	Dnajb2	DnaJ homolog subfamily B member 2-like	PPJ16470A
C03	N/A	XM_003496433	Dnajb4	DnaJ (Hsp40) homolog, subfamily B, member 4	PPJ01760A
C04	N/A	XM_007630909	Dnajb6	DnaJ homolog subfamily B member 6-like	PPJ09448A
C05	N/A	XM_003497996	Dnajb9	DnaJ homolog subfamily B member 9-like	PPJ11965A
C06	N/A	XM_003499419	Dnajc1	DnaJ (Hsp40) homolog, subfamily C, member 1	PPJ00561A
C07	N/A	XM_003497626	Dnajc13	DnaJ homolog subfamily C member 13-like	PPJ11828A
C08	N/A	XM_003511541	Dnajc16	DnaJ homolog subfamily C member 16-like	PPJ06032A
C09	N/A	XM_007633017	Dnajc2	DnaJ homolog subfamily C member 2-like	PPJ08870A
C10	N/A	XM_007626048	Dnajc21	DnaJ homolog subfamily C member 21-like	PPJ09998A
C11	N/A	XM_007618414	Dnajc25	DnaJ homolog subfamily C member 25-like	PPJ08366A
C12	N/A	XM_003511268	Dnajc4	DnaJ homolog subfamily C member 4-like	PPJ08656A
D01	N/A	XM_003503142	Dnajc5	DnaJ homolog subfamily C member 5-like	PPJ11977A
D02	N/A	XM_007632622	Dnajc6	DnaJ (Hsp40) homolog, subfamily C, member 6	PPJ01532A
D03	N/A	XM_003504638	Dnajc7	DnaJ (Hsp40) homolog, subfamily C, member 7	PPJ00991A
D04	N/A	XM_003498383	Dnajc8	DnaJ homolog subfamily C member 8-like	PPJ15740A
D05	N/A	XM_003509505	Dnajc9	DnaJ homolog subfamily C member 9-like	PPJ11245A

Position	UniGene	GenBank	Symbol	Description	Assay
D06	N/A	XM_003505156	Ephx2	Epoxide hydrolase 2, cytoplasmic	PPJ01746A
D07	N/A	XM_003505524	Fmo1	Flavin containing monooxygenase 1	PPJ00454A
D08	N/A	XM_007629955	Fmo4	Dimethylaniline monooxygenase [N-oxide-forming] 4-like	PPJ06667A
D09	N/A	XM_003505392	Fmo5	Flavin containing monooxygenase 5	PPJ00363A
D10	N/A	NM_001256788	Gpx1	Glutathione peroxidase 1-like	PPJ15496A
D11	N/A	NM_001256806	Gpx2	Glutathione peroxidase 2-like	PPJ05792A
D12	N/A	XM_003499652	Gsr	Glutathione reductase, mitochondrial-like	PPJ09196A
E01	N/A	XM_007626822	Gstk1	Glutathione S-transferase kappa 1	PPJ17245A
E02	N/A	XM_003515237	Gstm3	Glutathione S-transferase Mu 5-like	PPJ05257A
E03	N/A	XM_003515043	Gsto1	Glutathione S-transferase omega-1-like	PPJ09412A
E04	N/A	NM_001246744	Gstp1	Glutathione S-transferase, pi 1	PPJ00190A
E05	N/A	XM_007626555	Gstz1	Maleylacetoacetate isomerase-like	PPJ12341A
E06	N/A	XM_003511957	Hmax1	Heme oxygenase 1-like	PPJ08658A
E07	N/A	XM_003506347	Hmax2	Heme oxygenase 2-like	PPJ16588A
E08	N/A	XM_007607785	Hopx	Uncharacterized LOC100757669	PPJ09045A
E09	N/A	XM_003514976	Hspa12a	Heat shock protein 12A	PPJ01912A
E10	N/A	XM_003496418	Hspa14	Heat shock protein 14	PPJ00640A
E11	N/A	XM_003508473	Hspa1a	Heat shock 70 kDa protein 1A/1B-like	PPJ10448A
E12	N/A	XM_003499312	Hspa2	Heat shock-related 70 kDa protein 2-like	PPJ12483A
F01	N/A	XM_007613014	Hspa4	Heat shock 70 kDa protein 4-like	PPJ12423A
F02	N/A	NM_001246729	Hspa8	Heat shock protein 8	PPJ00313A
F03	N/A	XM_007624260	Hspb1	Uncharacterized LOC100763481	PPJ11886A
F04	N/A	XM_003498527	Hspb2	Heat shock protein beta-2-like	PPJ15987A
F05	N/A	XM_003507293	Hspb3	Heat shock protein beta-3-like	PPJ16925A
F06	N/A	XM_007628174	LOC100750493	DnaJ homolog subfamily B member 5	PPJ17243A
F07	N/A	XM_003502386	LOC100751269	Cytochrome P450 1A1-like	PPJ05739A
F08	N/A	XM_003513513	LOC100753172	Glutathione S-transferase alpha-5-like	PPJ06735A
F09	N/A	XM_003513589	LOC100754177	Cytochrome P450 2C19-like	PPJ17244A
F10	N/A	XM_007615189	LOC100755851	Cytochrome P450 1A2-like	PPJ08136A
F11	N/A	XM_003508069	LOC100757240	Cytochrome P450 2C29	PPJ17246A
F12	N/A	XM_003515768	LOC100757858	Glutathione S-transferase Mu 1-like	PPJ09135A
G01	N/A	XM_007613337	LOC100759241	Cytochrome P450 1B1	PPJ09800A
G02	N/A	XM_003514329	LOC100765891	Cytochrome P450 2E1-like	PPJ13007A
G03	N/A	XM_003514941	LOC100766772	Glutathione S-transferase Y1-like	PPJ13421A
G04	N/A	XM_007636049	LOC107977023	Cytochrome P450 11B2, mitochondrial	PPJ14413A
G05	N/A	XM_003497349	LOC100769255	Cytochrome P450 4B1-like	PPJ14582A
G06	N/A	NM_001246760	Serpinh1	Serine (or cysteine) peptidase inhibitor, clade H, member 1	PPJ00205A
G07	N/A	XM_007621104	Sod1	Superoxide dismutase [Cu-Zn]-like	PPJ12650B
G08	N/A	XM_003507569	Sod2	Superoxide dismutase [Mn], mitochondrial-like	PPJ10353A
G09	N/A	XM_003512803	Sod3	Extracellular superoxide dismutase [Cu-Zn]-like	PPJ12735A
G10	N/A	XM_003510309	Stt3	Hsc70-interacting protein-like	PPJ12118A
G11	N/A	NM_001246733	Tcp1	T-complex protein 1	PPJ00317A
G12	N/A	XM_003510086	Xdh	Xanthine dehydrogenase/oxidase-like	PPJ13346A
H01	N/A	NM_001244575	Actb	Actin, beta	PPJ00318A
H02	N/A	XM_007607973	Acr5	ARP5 actin-related protein 5 homolog (yeast)	PPJ03378A
H03	N/A	NM_001246674	B2m	Beta-2 microglobulin	PPJ00271A
H04	N/A	NM_001244854	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase	PPJ00327A
H05	N/A	XM_007623161	Hprt1	Hypoxanthine-guanine phosphoribosyltransferase-like	PPJ14829A
H06	N/A	SA_00519	JGDC	Hamster Genomic DNA Contamination	PPJ00001A
H07	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H08	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H09	N/A	SA_00104	RTC	Reverse Transcription Control	PPX63340A
H10	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H11	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A
H12	N/A	SA_00103	PPC	Positive PCR Control	PPX63339A

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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