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

Mouse Prostate Cancer

Cat. no. 330231 PAMM-135ZA

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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Description

The Mouse Prostate Cancer RT² Profiler PCR Array profiles the expression of 84 key genes commonly involved in prostate cancer development. One of the top lethal cancers in the United States, prostate cancer is a neoplasm of the male reproductive gland that manifests primarily after the age of fifty. The molecular cause of prostate cancer is still unclear, but is often associated with deregulated androgen signaling and aberrant metabolism of macromolecules such as fatty acids. Indeed, androgen ablation therapy causes regression of primary and metastatic androgen-dependent prostate cancer. Androgen receptor expression seems to promote prostate cancer cell survival, but inhibiting the androgen receptor has, so far, been clinically less effective than predicted. Polyunsaturated fatty acids cause prostate tumor progression and increased mortality, while diets rich in omega-3 fatty acids seem to benefit prostate cancer patients. Research directed at these pathways may yield insights into the molecular mechanisms behind prostate oncogenesis. This array represents genes involved in androgen receptor, PI3 kinase/AKT, and PTEN signaling, as well as the cell cycle and apoptotic pathways. The 84 key genes also include deregulated genes detected routinely in molecular analysis of prostate cancer samples and in high-throughput microarray profiling studies, as well as genes known to have differentially methylated promoters in prostate cancer. Prostate cancers tend to metastasize; therefore, the array includes genes associated with metastatic potential. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in prostate cancer initiation, progression, and metastasis 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	Abcb1a	Abcb1b	Acaca	Akt1	Apc	Ar	Arntl	Bcl2	Camkk1	Casp3	Cav2	Ccna1
B	Ccnd1	Ccnd2	Cdh1	Cdkn1a	Cdkn2a	Cln3	Creb1	Dab2ip	Daxx	Ddx11	Dkk3	Dlc1
C	Ect2	Egfr	Egr3	Erg	Etv1	Fasn	Foxo1	Gadd45a	Gca	Gnrh1	Gpx3	Gstp1
D	Hal	Hmgcr	Igf1	Igfbp5	Il6	Ints6	Klhl13	Klkb1	Lgals4	Loxl1	Mapk1	Max
E	Msx1	Mto1	Ndrg3	Nfkb1	Nkx3-1	Nrip1	Pdpk1	Pes1	Ppp2r1b	Prkab1	Pten	Ptgs1
F	Rarb	Rassf1	Rb1	Rbm39	Rbp1	Scaf11	Sept7	Sfn	Sfrp1	Shbg	Slc5a8	Socs3
G	Sox4	Srebf1	Stk11	Supt7l	Tfpi2	Tgfb1i1	Timp2	Timp3	Tmprss2	Trp53	Usp5	Vegfa
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.207354	NM_011076	Abcb1a	ATP-binding cassette, sub-family B (MDR/TAP), member 1A
A02	Mm.146649	NM_011075	Abcb1b	ATP-binding cassette, sub-family B (MDR/TAP), member 1B
A03	Mm.31374	NM_133360	Acaca	Acetyl-Coenzyme A carboxylase alpha
A04	Mm.6645	NM_009652	Akt1	Thymoma viral proto-oncogene 1
A05	Mm.384171	NM_007462	Apc	Adenomatosis polyposis coli
A06	Mm.39005	NM_013476	Ar	Androgen receptor
A07	Mm.440371	NM_007489	Arntl	Aryl hydrocarbon receptor nuclear translocator-like
A08	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A09	Mm.9998	NM_018883	Camkk1	Calcium/calmodulin-dependent protein kinase kinase 1, alpha
A10	Mm.34405	NM_009810	Casp3	Caspase 3
A11	Mm.396075	NM_016900	Cav2	Caveolin 2
A12	Mm.4815	NM_007628	Ccna1	Cyclin A1
B01	Mm.273049	NM_007631	Ccnd1	Cyclin D1
B02	Mm.333406	NM_009829	Ccnd2	Cyclin D2
B03	Mm.35605	NM_009864	Cdh1	Cadherin 1
B04	Mm.195663	NM_007669	Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)
B05	Mm.4733	NM_009877	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
B06	Mm.268930	NM_009907	Cln3	Ceroid lipofuscinosis, neuronal 3, juvenile (Batten, Spielmeyer-Vogt disease)
B07	Mm.453295	NM_133828	Creb1	CAMP responsive element binding protein 1
B08	Mm.29629	NM_001001602	Dab2ip	Disabled homolog 2 (Drosophila) interacting protein
B09	Mm.271809	NM_007829	Daxx	Fas death domain-associated protein
B10	Mm.259605	NM_001003919	Ddx11	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 11 (CHL1-like helicase homolog, S. cerevisiae)
B11	Mm.55143	NM_015814	Dkk3	Dickkopf homolog 3 (Xenopus laevis)
B12	Mm.210875	NM_015802	Dlc1	Deleted in liver cancer 1
C01	Mm.261453	NM_007900	Ect2	Ect2 oncogene
C02	Mm.8534	NM_007912	Egfr	Epidermal growth factor receptor
C03	Mm.103737	NM_018781	Egr3	Early growth response 3
C04	Mm.164531	NM_133659	Erg	Avian erythroblastosis virus E-26 (v-ets) oncogene related
C05	Mm.4866	NM_007960	Etv1	Ets variant gene 1
C06	Mm.236443	NM_007988	Fasn	Fatty acid synthase
C07	Mm.29891	NM_019739	Foxo1	Forkhead box O1
C08	Mm.72235	NM_007836	Gadd45a	Growth arrest and DNA-damage-inducible 45 alpha
C09	Mm.219877	NM_145523	Gca	Grancalcin
C10	Mm.358309	NM_008145	Gnrh1	Gonadotropin releasing hormone 1
C11	Mm.200916	NM_008161	Gpx3	Glutathione peroxidase 3
C12	Mm.299292	NM_013541	Gstp1	Glutathione S-transferase, pi 1
D01	Mm.13000	NM_010401	Hal	Histidine ammonia lyase
D02	Mm.485394	NM_008255	Hmgcr	3-hydroxy-3-methylglutaryl-Coenzyme A reductase
D03	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D04	Mm.405761	NM_010518	Igfbp5	Insulin-like growth factor binding protein 5
D05	Mm.1019	NM_031168	Il6	Interleukin 6
D06	Mm.319684	NM_008715	Ints6	Integrator complex subunit 6
D07	Mm.224306	NM_026167	Klhl13	Kelch-like 13 (Drosophila)
D08	Mm.482691	NM_008455	Klkb1	Kallikrein B, plasma 1

Position	UniGene	GenBank	Symbol	Description
D09	Mm.210336	NM_010706	Lgals4	Lectin, galactose binding, soluble 4
D10	Mm.250492	NM_010729	Loxl1	Lysyl oxidase-like 1
D11	Mm.196581	NM_011949	Mapk1	Mitogen-activated protein kinase 1
D12	Mm.268548	NM_008558	Max	Max protein
E01	Mm.256509	NM_010835	Msx1	Homeobox, msh-like 1
E02	Mm.291779	NM_026658	Mto1	Mitochondrial translation optimization 1 homolog (S. cerevisiae)
E03	Mm.279256	NM_013865	Ndrg3	N-myc downstream regulated gene 3
E04	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E05	Mm.3520	NM_010921	Nkx3-1	NK-3 transcription factor, locus 1 (Drosophila)
E06	Mm.74711	NM_173440	Nrip1	Nuclear receptor interacting protein 1
E07	Mm.10504	NM_011062	Pdpk1	3-phosphoinositide dependent protein kinase 1
E08	Mm.28659	NM_022889	Pes1	Pescadillo homolog 1, containing BRCT domain (zebrafish)
E09	Mm.7726	NM_001034085	Ppp2r1b	Protein phosphatase 2 (formerly 2A), regulatory subunit A (PR 65), beta isoform
E10	Mm.458152	NM_031869	Prkab1	Protein kinase, AMP-activated, beta 1 non-catalytic subunit
E11	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
E12	Mm.275434	NM_008969	Ptgs1	Prostaglandin-endoperoxide synthase 1
F01	Mm.259318	NM_011243	Rarb	Retinoic acid receptor, beta
F02	Mm.12091	NM_019713	Rassf1	Ras association (RalGDS/AF-6) domain family member 1
F03	Mm.273862	NM_009029	Rb1	Retinoblastoma 1
F04	Mm.392436	NM_133242	Rbm39	RNA binding motif protein 39
F05	Mm.279741	NM_011254	Rbp1	Retinol binding protein 1, cellular
F06	Mm.324474	NM_028148	Scaf11	SR-related CTD-associated factor 11
F07	Mm.270259	NM_009859	Sept7	Septin 7
F08	Mm.44482	NM_018754	Sfn	Stratifin
F09	Mm.281691	NM_013834	Sfrp1	Secreted frizzled-related protein 1
F10	Mm.1431	NM_011367	Shbg	Sex hormone binding globulin
F11	Mm.77381	NM_145423	Slc5a8	Solute carrier family 5 (iodide transporter), member 8
F12	Mm.3468	NM_007707	Socs3	Suppressor of cytokine signaling 3
G01	Mm.240627	NM_009238	Sox4	SRY-box containing gene 4
G02	Mm.278701	NM_011480	Srebf1	Sterol regulatory element binding transcription factor 1
G03	Mm.44231	NM_011492	Stk11	Serine/threonine kinase 11
G04	Mm.164187	NM_028150	Supt7l	Suppressor of Ty 7 (S. cerevisiae)-like
G05	Mm.25612	NM_009364	Tfpi2	Tissue factor pathway inhibitor 2
G06	Mm.3248	NM_009365	Tgfb1i1	Transforming growth factor beta 1 induced transcript 1
G07	Mm.206505	NM_011594	Timp2	Tissue inhibitor of metalloproteinase 2
G08	Mm.4871	NM_011595	Timp3	Tissue inhibitor of metalloproteinase 3
G09	Mm.276145	NM_015775	Tmprss2	Transmembrane protease, serine 2
G10	Mm.222	NM_011640	Trp53	Transformation related protein 53
G11	Mm.3571	NM_013700	Usp5	Ubiquitin specific peptidase 5 (isopeptidase T)
G12	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor 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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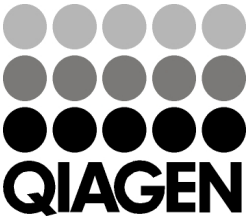

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