

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

Mouse p53 Signaling Pathway

Cat. no. 330231 PAMM-027ZA

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 p53 Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes related to p53-mediated signal transduction. The array includes p53-related genes involved in the processes of apoptosis, the cell cycle, cell growth, proliferation, and differentiation, and DNA repair. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to p53 signaling pathway 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	Apaf1	Apex1	Atm	Atr	Bag1	Bax	Bbc3	Bcl2	Bid	Birc5	Bnip3	Brc1
B	Brc2	Btg2	Casp2	Casp9	Ccnb1	Ccne1	Ccng1	Ccnh	Cdc25a	Cdc25c	Cdk1	Cdk4
C	Cdkn1a	Cdkn2a	Chek1	Chek2	Cradd	Cul9	Dapk1	Dnmt1	E2f1	E2f3	Egfr	Egr1
D	Ep300	Ercc1	Esr1	Fadd	Fas	Fasl	Foxo3	Gadd45a	Hif1a	Il6	Jun	Kras
E	Lig4	Mcl1	Mdm2	Mdm4	Mlh1	Msh2	Myc	Myod1	Nf1	Nkx1	Pcna	Pmaip1
F	Ppm1d	Prc1	Prkca	Pten	Ptgg1	Rb1	Rela	Rprm	Serpins5	Sesn2	Sfn	Sirt1
G	Stat1	Tnf	Tnfrsf10b	Traf1	Trp53	Trp53bp2	Trp63	Trp73	Wt1	Xrcc4	Xrcc5	Zmat3
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.220289	NM_009684	Apaf1	Apoptotic peptidase activating factor 1
A02	Mm.203	NM_009687	Apex1	Apurinic/apyrimidinic endonuclease 1
A03	Mm.5088	NM_007499	Atm	Ataxia telangiectasia mutated homolog (human)
A04	Mm.212462	NM_019864	Atr	Ataxia telangiectasia and rad3 related
A05	Mm.688	NM_009736	Bag1	Bcl2-associated athanogene 1
A06	Mm.19904	NM_007527	Bax	Bcl2-associated X protein
A07	Mm.7660	NM_133234	Bbc3	BCL2 binding component 3
A08	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A09	Mm.235081	NM_007544	Bid	BH3 interacting domain death agonist
A10	Mm.8552	NM_009689	Birc5	Baculoviral IAP repeat-containing 5
A11	Mm.378890	NM_009760	Bnip3	BCL2/adenovirus E1B interacting protein 3
A12	Mm.244975	NM_009764	Brc1	Breast cancer 1
B01	Mm.236256	NM_009765	Brc2	Breast cancer 2
B02	Mm.392646	NM_007570	Btg2	B-cell translocation gene 2, anti-proliferative
B03	Mm.3921	NM_007610	Casp2	Caspase 2
B04	Mm.88829	NM_015733	Casp9	Caspase 9
B05	Mm.260114	NM_172301	Ccnb1	Cyclin B1
B06	Mm.16110	NM_007633	Ccne1	Cyclin E1
B07	Mm.2103	NM_009831	Ccng1	Cyclin G1
B08	Mm.18474	NM_023243	Ccnh	Cyclin H
B09	Mm.307103	NM_007658	Cdc25a	Cell division cycle 25 homolog A (S. pombe)
B10	Mm.286602	NM_009860	Cdc25c	Cell division cycle 25 homolog C (S. pombe)
B11	Mm.281367	NM_007659	Cdk1	Cyclin-dependent kinase 1
B12	Mm.6839	NM_009870	Cdk4	Cyclin-dependent kinase 4
C01	Mm.195663	NM_007669	Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)
C02	Mm.4733	NM_009877	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
C03	Mm.16753	NM_007691	Chek1	Checkpoint kinase 1 homolog (S. pombe)
C04	Mm.279308	NM_016681	Chek2	CHK2 checkpoint homolog (S. pombe)
C05	Mm.218009	NM_009950	Cradd	CASP2 and RIPK1 domain containing adaptor with death domain
C06	Mm.329076	NM_001081335	Cul9	Cullin 9
C07	Mm.24103	NM_029653	Dapk1	Death associated protein kinase 1
C08	Mm.128580	NM_010066	Dnmt1	DNA methyltransferase (cytosine-5) 1
C09	Mm.18036	NM_007891	E2f1	E2F transcription factor 1
C10	Mm.268356	NM_010093	E2f3	E2F transcription factor 3
C11	Mm.8534	NM_007912	Egfr	Epidermal growth factor receptor
C12	Mm.181959	NM_007913	Egr1	Early growth response 1
D01	Mm.258397	NM_177821	Ep300	E1A binding protein p300
D02	Mm.280913	NM_007948	Ercc1	Excision repair cross-complementing rodent repair deficiency, complementation group 1
D03	Mm.9213	NM_007956	Esr1	Estrogen receptor 1 (alpha)
D04	Mm.5126	NM_010175	Fadd	Fas (TNFRSF6)-associated via death domain
D05	Mm.1626	NM_007987	Fas	Fas (TNF receptor superfamily member 6)
D06	Mm.3355	NM_010177	Fasl	Fas ligand (TNF superfamily, member 6)
D07	Mm.338613	NM_019740	Foxo3	Forkhead box O3
D08	Mm.72235	NM_007836	Gadd45a	Growth arrest and DNA-damage-inducible 45 alpha

Position	UniGene	GenBank	Symbol	Description
D09	Mm.3879	NM_010431	Hif1a	Hypoxia inducible factor 1, alpha subunit
D10	Mm.1019	NM_031168	Il6	Interleukin 6
D11	Mm.275071	NM_010591	Jun	Jun oncogene
D12	Mm.383182	NM_021284	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
E01	Mm.80584	NM_176953	Lig4	Ligase IV, DNA, ATP-dependent
E02	Mm.1639	NM_008562	Mcl1	Myeloid cell leukemia sequence 1
E03	Mm.22670	NM_010786	Mdm2	Transformed mouse 3T3 cell double minute 2
E04	Mm.426531	NM_008575	Mdm4	Transformed mouse 3T3 cell double minute 4
E05	Mm.196006	NM_026810	Mlh1	MutL homolog 1 (E. coli)
E06	Mm.4619	NM_008628	Msh2	MutS homolog 2 (E. coli)
E07	Mm.2444	NM_010849	Myc	Myelocytomatosis oncogene
E08	Mm.1526	NM_010866	Myod1	Myogenic differentiation 1
E09	Mm.255596	NM_010897	Nf1	Neurofibromatosis 1
E10	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E11	Mm.7141	NM_011045	Pcna	Proliferating cell nuclear antigen
E12	Mm.271878	NM_021451	Pmaip1	Phorbol-12-myristate-13-acetate-induced protein 1
F01	Mm.45609	NM_016910	Ppm1d	Protein phosphatase 1D magnesium-dependent, delta isoform
F02	Mm.227274	NM_145150	Prc1	Protein regulator of cytokinesis 1
F03	Mm.222178	NM_011101	Prkca	Protein kinase C, alpha
F04	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
F05	Mm.6856	NM_013917	Pttg1	Pituitary tumor-transforming gene 1
F06	Mm.273862	NM_009029	Rb1	Retinoblastoma 1
F07	Mm.249966	NM_009045	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F08	Mm.27086	NM_023396	Rprm	Reprimo, TP53 dependent G2 arrest mediator candidate
F09	Mm.268618	NM_009257	Serpinh5	Serine (or cysteine) peptidase inhibitor, clade B, member 5
F10	Mm.23608	NM_144907	Sesn2	Sestrin 2
F11	Mm.44482	NM_018754	Sfn	Stratifin
F12	Mm.351459	NM_019812	Sirt1	Sirtuin 1 (silent mating type information regulation 2, homolog) 1 (S. cerevisiae)
G01	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G02	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G03	Mm.193430	NM_020275	Tnfrsf10b	Tumor necrosis factor receptor superfamily, member 10b
G04	Mm.239514	NM_009421	Traf1	Tnf receptor-associated factor 1
G05	Mm.222	NM_011640	Trp53	Transformation related protein 53
G06	Mm.287450	NM_173378	Trp53bp2	Transformation related protein 53 binding protein 2
G07	Mm.20894	NM_011641	Trp63	Transformation related protein 63
G08	Mm.78015	NM_011642	Trp73	Transformation related protein 73
G09	Mm.389339	NM_144783	Wt1	Wilms tumor 1 homolog
G10	Mm.37531	NM_028012	Xrcc4	X-ray repair complementing defective repair in Chinese hamster cells 4
G11	Mm.246952	NM_009533	Xrcc5	X-ray repair complementing defective repair in Chinese hamster cells 5
G12	Mm.35705	NM_009517	Zmat3	Zinc finger matrin type 3
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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