

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

Human p53 Signaling Pathway

Cat. no. 330231 PAHS-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 Human 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	ATM	ATR	BAI1	BAX	BBC3	BCL2	BCL2A1	BID	BIRC5	BRCA1	BRCA2
B	BTG2	CASP2	CASP9	CCNB1	CCNE1	CCNG1	CCNH	CDC25A	CDC25C	CDK1	CDK4	CDKN1A
C	CDKN2A	CHEK1	CHEK2	CRADD	DNMT1	E2F1	E2F3	EGFR	EGR1	EI24	ESR1	FADD
D	FAS	FASLG	FOXO3	GADD45A	GML	HDAC1	HK2	IGF1R	IL6	JUN	KAT2B	KRAS
E	MCL1	MDM2	MDM4	MLH1	MSH2	MYC	MYOD1	NF1	NFKB1	PCNA	PIDD	PPM1D
F	PRC1	PRKCA	PTEN	PTTG1	RB1	RELA	RPRM	SESN2	SHAH1	SIRT1	STAT1	TADA3
G	TNF	TNFRSF10B	TNFRSF10D	TP53	TP53AIP1	TP53BP2	TP63	TP73	TRAF2	TSC1	WT1	XRCC5
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.728891	NM_001160	APAF1	Apoptotic peptidase activating factor 1
A02	Hs.367437	NM_000051	ATM	Ataxia telangiectasia mutated
A03	Hs.271791	NM_001184	ATR	Ataxia telangiectasia and Rad3 related
A04	Hs.194654	NM_001702	BAI1	Brain-specific angiogenesis inhibitor 1
A05	Hs.624291	NM_004324	BAX	BCL2-associated X protein
A06	Hs.467020	NM_014417	BBC3	BCL2 binding component 3
A07	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A08	Hs.227817	NM_004049	BCL2A1	BCL2-related protein A1
A09	Hs.591054	NM_001196	BID	BH3 interacting domain death agonist
A10	Hs.728893	NM_001168	BIRC5	Baculoviral IAP repeat containing 5
A11	Hs.194143	NM_007294	BRCA1	Breast cancer 1, early onset
A12	Hs.34012	NM_000059	BRCA2	Breast cancer 2, early onset
B01	Hs.519162	NM_006763	BTG2	BTG family, member 2
B02	Hs.368982	NM_032982	CASP2	Caspase 2, apoptosis-related cysteine peptidase
B03	Hs.329502	NM_001229	CASP9	Caspase 9, apoptosis-related cysteine peptidase
B04	Hs.23960	NM_031966	CCNB1	Cyclin B1
B05	Hs.244723	NM_001238	CCNE1	Cyclin E1
B06	Hs.79101	NM_004060	CCNG1	Cyclin G1
B07	Hs.292524	NM_001239	CCNH	Cyclin H
B08	Hs.437705	NM_001789	CDC25A	Cell division cycle 25 homolog A (S. pombe)
B09	Hs.656	NM_001790	CDC25C	Cell division cycle 25 homolog C (S. pombe)
B10	Hs.334562	NM_001786	CDK1	Cyclin-dependent kinase 1
B11	Hs.95577	NM_000075	CDK4	Cyclin-dependent kinase 4
B12	Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
C01	Hs.512599	NM_000077	CDKN2A	Cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
C02	Hs.24529	NM_001274	CHEK1	CHK1 checkpoint homolog (S. pombe)
C03	Hs.291363	NM_007194	CHEK2	CHK2 checkpoint homolog (S. pombe)
C04	Hs.38533	NM_003805	CRADD	CASP2 and RIPK1 domain containing adaptor with death domain
C05	Hs.202672	NM_001379	DNMT1	DNA (cytosine-5-)-methyltransferase 1
C06	Hs.654393	NM_005225	E2F1	E2F transcription factor 1
C07	Hs.269408	NM_001949	E2F3	E2F transcription factor 3
C08	Hs.488293	NM_005228	EGFR	Epidermal growth factor receptor
C09	Hs.326035	NM_001964	EGR1	Early growth response 1
C10	Hs.716416	NM_004879	EI24	Etoposide induced 2.4 mRNA
C11	Hs.208124	NM_000125	ESR1	Estrogen receptor 1
C12	Hs.86131	NM_003824	FADD	Fas (TNFRSF6)-associated via death domain
D01	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
D02	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
D03	Hs.220950	NM_001455	FOXO3	Forkhead box O3
D04	Hs.80409	NM_001924	GADD45A	Growth arrest and DNA-damage-inducible, alpha
D05	Hs.661218	NM_002066	GML	Glycosylphosphatidylinositol anchored molecule like protein
D06	Hs.88556	NM_004964	HDAC1	Histone deacetylase 1
D07	Hs.406266	NM_000189	HK2	Hexokinase 2
D08	Hs.643120	NM_000875	IGF1R	Insulin-like growth factor 1 receptor
D09	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)

Position	UniGene	GenBank	Symbol	Description
D10	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D11	Hs.533055	NM_003884	KAT2B	K(lysine) acetyltransferase 2B
D12	Hs.505033	NM_004985	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
E01	Hs.632486	NM_021960	MCL1	Myeloid cell leukemia sequence 1 (BCL2-related)
E02	Hs.484551	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)
E03	Hs.497492	NM_002393	MDM4	Mdm4 p53 binding protein homolog (mouse)
E04	Hs.195364	NM_000249	MLH1	MutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)
E05	Hs.597656	NM_000251	MSH2	MutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli)
E06	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
E07	Hs.181768	NM_002478	MYOD1	Myogenic differentiation 1
E08	Hs.113577	NM_000267	NF1	Neurofibromin 1
E09	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E10	Hs.728886	NM_182649	PCNA	Proliferating cell nuclear antigen
E11	Hs.592290	NM_145886	PIDD	P53-induced death domain protein
E12	Hs.591184	NM_003620	PPM1D	Protein phosphatase, Mg2+/Mn2+ dependent, 1D
F01	Hs.567385	NM_003981	PRC1	Protein regulator of cytokinesis 1
F02	Hs.531704	NM_002737	PRKCA	Protein kinase C, alpha
F03	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog
F04	Hs.350966	NM_004219	PTTG1	Pituitary tumor-transforming 1
F05	Hs.408528	NM_000321	RB1	Retinoblastoma 1
F06	Hs.502875	NM_021975	RELA	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F07	Hs.100890	NM_019845	RPRM	Reprimo, TP53 dependent G2 arrest mediator candidate
F08	Hs.469543	NM_031459	SESN2	Sestrin 2
F09	Hs.728779	NM_003031	SIAH1	Seven in absentia homolog 1 (Drosophila)
F10	Hs.369779	NM_012238	SIRT1	Sirtuin 1
F11	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
F12	Hs.386390	NM_006354	TADA3	Transcriptional adaptor 3
G01	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G02	Hs.521456	NM_003842	TNFRSF10B	Tumor necrosis factor receptor superfamily, member 10b
G03	Hs.213467	NM_003840	TNFRSF10D	Tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain
G04	Hs.654481	NM_000546	TP53	Tumor protein p53
G05	Hs.160953	NM_022112	TP53AIP1	Tumor protein p53 regulated apoptosis inducing protein 1
G06	Hs.523968	NM_005426	TP53BP2	Tumor protein p53 binding protein, 2
G07	Hs.137569	NM_003722	TP63	Tumor protein p63
G08	Hs.697294	NM_005427	TP73	Tumor protein p73
G09	Hs.522506	NM_021138	TRAF2	TNF receptor-associated factor 2
G10	Hs.370854	NM_000368	TSC1	Tuberous sclerosis 1
G11	Hs.591980	NM_000378	WT1	Wilms tumor 1
G12	Hs.388739	NM_021141	XRCC5	X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

Ireland ■ 1800 555 049

Norway ■ 800-18859

China ■ 8621-3865-3865

Italy ■ 800-787980

Singapore ■ 1800-742-4368

Denmark ■ 80-885945

Japan ■ 03-6890-7300

Spain ■ 91-630-7050

Australia ■ 1-800-243-800

Finland ■ 0800-914416

Korea (South) ■ 080-000-7145

Sweden ■ 020-790282

Austria ■ 0800/281010

France ■ 01-60-920-930

Luxembourg ■ 8002 2076

Switzerland ■ 055-254-22-11

Belgium ■ 0800-79612

Germany ■ 02103-29-12000

Mexico ■ 01-800-7742-436

UK ■ 01293-422-911

Brazil ■ 0800-557779

Hong Kong ■ 800 933 965

The Netherlands ■ 0800 0229592

USA ■ 800-426-8157



Sample & Assay Technologies