

RT² Profiler PCR Array (Rotor-Gene® Format)

Human p53 Signaling Pathway

Cat. no. 330231 PAHS-027ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

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 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 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.



Sample & Assay Technologies

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.

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)
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

Position	UniGene	GenBank	Symbol	Description
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, Mg ²⁺ /Mn ²⁺ 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 ROX [™] 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.

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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