

RT² Profiler PCR Array (Rotor-Gene[®] Format)

Human Transcription Factors

Cat. no. 330231 PAHS-075ZR

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 Transcription Factors RT² Profiler PCR Array profiles the expression of 84 genes that directly control when, where, and the extent to which genes are expressed. The array includes transcription factors downstream of signaling from cytokines and chemokines and growth factors like BMP, EGF, EPO, IGF, insulin, PDGF, TGF β , TPO, and VEGF. Signaling from androgen, B-cell, G-protein coupled, T-cell, and Toll-Like receptors activate transcription factors represented on this array. Target transcription factors in signal transduction pathways like JAK / STAT, JNK and other MAP Kinases, NF κ B, Notch, and WNT are also included in this array. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of transcription factors 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.



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.496240	NM_000044	AR	Androgen receptor
A02	Hs.632446	NM_001668	ARNT	Aryl hydrocarbon receptor nuclear translocator
A03	Hs.648565	NM_005171	ATF1	Activating transcription factor 1
A04	Hs.592510	NM_001880	ATF2	Activating transcription factor 2
A05	Hs.460	NM_001674	ATF3	Activating transcription factor 3
A06	Hs.496487	NM_001675	ATF4	Activating transcription factor 4 (tax-responsive enhancer element B67)
A07	Hs.699463	NM_004364	CEBPA	CCAAT/enhancer binding protein (C/EBP), alpha
A08	Hs.517106	NM_005194	CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
A09	Hs.429666	NM_001806	CEBPG	CCAAT/enhancer binding protein (C/EBP), gamma
A10	Hs.516646	NM_004379	CREB1	CAMP responsive element binding protein 1
A11	Hs.459759	NM_004380	CREBBP	CREB binding protein
A12	Hs.476018	NM_001904	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
B01	Hs.348418	NM_001938	DR1	Down-regulator of transcription 1, TBP-binding (negative cofactor 2)
B02	Hs.654393	NM_005225	E2F1	E2F transcription factor 1
B03	Hs.603093	NM_198256	E2F6	E2F transcription factor 6
B04	Hs.326035	NM_001964	EGR1	Early growth response 1
B05	Hs.181128	NM_005229	ELK1	ELK1, member of ETS oncogene family
B06	Hs.208124	NM_000125	ESR1	Estrogen receptor 1
B07	Hs.369438	NM_005238	ETS1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
B08	Hs.644231	NM_005239	ETS2	V-Ets erythroblastosis virus E26 oncogene homolog 2 (avian)
B09	Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
B10	Hs.155651	NM_021784	FOXA2	Forkhead box A2
B11	Hs.695962	NM_005249	FOXP1	Forkhead box G1
B12	Hs.370666	NM_002015	FOXP1	Forkhead box O1
C01	Hs.765	NM_002049	GATA1	GATA binding protein 1 (globin transcription factor 1)
C02	Hs.367725	NM_032638	GATA2	GATA binding protein 2
C03	Hs.524134	NM_002051	GATA3	GATA binding protein 3
C04	Hs.481852	NM_001514	GTF2B	General transcription factor IIB
C05	Hs.68257	NM_002096	GTF2F1	General transcription factor IIF, polypeptide 1, 74kDa
C06	Hs.152531	NM_004821	HAND1	Heart and neural crest derivatives expressed 1
C07	Hs.388245	NM_021973	HAND2	Heart and neural crest derivatives expressed 2
C08	Hs.88556	NM_004964	HDAC1	Histone deacetylase 1
C09	Hs.597216	NM_001530	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
C10	Hs.654455	NM_000545	HNF1A	HNF1 homeobox A
C11	Hs.116462	NM_178849	HNF4A	Hepatocyte nuclear factor 4, alpha
C12	Hs.655218	NM_019102	HOXA5	Homeobox A5
D01	Hs.530227	NM_005526	HSF1	Heat shock transcription factor 1
D02	Hs.504609	NM_002165	ID1	Inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
D03	Hs.436061	NM_002198	IRF1	Interferon regulatory factor 1
D04	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D05	Hs.25292	NM_002229	JUNB	Jun B proto-oncogene
D06	Hs.2780	NM_005354	JUND	Jun D proto-oncogene
D07	Hs.285354	NM_002382	MAX	MYC associated factor X
D08	Hs.268675	NM_005587	MEF2A	Myocyte enhancer factor 2A
D09	Hs.653394	NM_002397	MEF2C	Myocyte enhancer factor 2C
D10	Hs.654446	NM_005375	MYB	V-myb myeloblastosis viral oncogene homolog (avian)
D11	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
D12	Hs.178023	NM_005593	MYF5	Myogenic factor 5
E01	Hs.181768	NM_002478	MYOD1	Myogenic differentiation 1
E02	Hs.371987	NM_006599	NFAT5	Nuclear factor of activated T-cells 5, tonicity-responsive
E03	Hs.534074	NM_172390	NFATC1	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
E04	Hs.713650	NM_012340	NFATC2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
E05	Hs.632209	NM_004555	NFATC3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
E06	Hs.77810	NM_004554	NFATC4	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 4
E07	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E08	Hs.84928	NM_006166	NFYB	Nuclear transcription factor Y, beta

Position	UniGene	GenBank	Symbol	Description
E09	Hs.122926	NM_000176	NR3C1	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
E10	Hs.270303	NM_000280	PAX6	Paired box 6
E11	Hs.654525	NM_006235	POU2AF1	POU class 2 associating factor 1
E12	Hs.103110	NM_005036	PPARA	Peroxisome proliferator-activated receptor alpha
F01	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
F02	Hs.408528	NM_000321	RB1	Retinoblastoma 1
F03	Hs.631886	NM_002908	REL	V-rel reticuloendotheliosis viral oncogene homolog (avian)
F04	Hs.502875	NM_021975	RELA	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F05	Hs.654402	NM_006509	RELB	V-rel reticuloendotheliosis viral oncogene homolog B
F06	Hs.604588	NM_005900	SMAD1	SMAD family member 1
F07	Hs.75862	NM_005359	SMAD4	SMAD family member 4
F08	Hs.167700	NM_005903	SMAD5	SMAD family member 5
F09	Hs.123119	NM_005905	SMAD9	SMAD family member 9
F10	Hs.620754	NM_138473	SP1	Sp1 transcription factor
F11	Hs.531587	NM_003111	SP3	Sp3 transcription factor
F12	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
G01	Hs.530595	NM_005419	STAT2	Signal transducer and activator of transcription 2, 113kDa
G02	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G03	Hs.80642	NM_003151	STAT4	Signal transducer and activator of transcription 4
G04	Hs.437058	NM_003152	STAT5A	Signal transducer and activator of transcription 5A
G05	Hs.595276	NM_012448	STAT5B	Signal transducer and activator of transcription 5B
G06	Hs.524518	NM_003153	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
G07	Hs.590872	NM_003194	TBP	TATA box binding protein
G08	Hs.593995	NM_030756	TCF7L2	Transcription factor 7-like 2 (T-cell specific, HMG-box)
G09	Hs.519880	NM_003220	TFAP2A	Transcription factor AP-2 alpha (activating enhancer binding protein 2 alpha)
G10	Hs.373550	NM_003244	TGIF1	TGF-beta-induced factor homeobox 1
G11	Hs.654481	NM_000546	TP53	Tumor protein p53
G12	Hs.388927	NM_003403	YY1	YY1 transcription factor
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.

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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