

RT² Profiler PCR Array (Rotor-Gene® Format)

Rat Transcription Factors

Cat. no. 330231 PARN-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 Rat 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, TGFβ, 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, NFκB, 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.



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	Rn.9813	NM_012502	Ar	Androgen receptor
A02	Rn.10520	NM_012780	Arnt	Aryl hydrocarbon receptor nuclear translocator
A03	Rn.105304	NM_001100895	Atf1	Activating transcription factor 1
A04	Rn.9825	NM_031018	Atf2	Activating transcription factor 2
A05	Rn.9664	NM_012912	Atf3	Activating transcription factor 3
A06	Rn.2423	NM_024403	Atf4	Activating transcription factor 4 (tax-responsive enhancer element B67)
A07	Rn.204833	NM_012524	Cebpa	CCAAT/enhancer binding protein (C/EBP), alpha
A08	Rn.6479	NM_024125	Cebpb	CCAAT/enhancer binding protein (C/EBP), beta
A09	Rn.10332	NM_012831	Cebpg	CCAAT/enhancer binding protein (C/EBP), gamma
A10	Rn.17553	NM_001024294	Clasrp	Clk4-associating serine/arginine rich protein
A11	Rn.90061	NM_031017	Creb1	CAMP responsive element binding protein 1
A12	Rn.108128	NM_133381	Crebbp	CREB binding protein
B01	Rn.112601	NM_053357	Ctnnb1	Catenin (cadherin associated protein), beta 1
B02	Rn.6666	NM_001011914	Dr1	Down-regulator of transcription 1
B03	Rn.72471	NM_001100778	E2f1	E2F transcription factor 1
B04	Rn.212639	XM_233986	E2f6	E2F transcription factor 6
B05	Rn.9096	NM_012551	Egr1	Early growth response 1
B06	Rn.10595	NM_012689	Esr1	Estrogen receptor 1
B07	Rn.88756	NM_012555	Ets1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
B08	Rn.164554	NM_001107107	Ets2	V-ets erythroblastosis virus E26 oncogene homolog 2 (avian)
B09	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
B10	Rn.10948	NM_012743	Foxa2	Forkhead box A2
B11	Rn.9864	NM_012560	Foxg1	Forkhead box G1
B12	Rn.10024	NM_012764	Gata1	GATA binding protein 1
C01	Rn.34322	NM_033442	Gata2	GATA binding protein 2
C02	Rn.92350	NM_133293	Gata3	GATA binding protein 3
C03	Rn.6109	NM_031041	Gtf2b	General transcription factor IIB
C04	Rn.98836	NM_001007711	Gtf2f1	General transcription factor IIF, polypeptide 1
C05	Rn.39340	NM_021592	Hand1	Heart and neural crest derivatives expressed 1
C06	Rn.41057	NM_022696	Hand2	Heart and neural crest derivatives expressed 2
C07	Rn.1863	NM_001025409	Hdac1	Histone deacetylase 1
C08	Rn.10852	NM_024359	Hif1a	Hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
C09	Rn.9660	NM_012669	Hnf1a	HNF1 homeobox A
C10	Rn.44442	NM_022180	Hnf4a	Hepatocyte nuclear factor 4, alpha
C11	Rn.8465	XM_001059031	Hoxa5	Homeo box A5
C12	Rn.20418	NM_024393	Hsf1	Heat shock transcription factor 1
D01	Rn.2113	NM_012797	Id1	Inhibitor of DNA binding 1
D02	Rn.6396	NM_012591	Irf1	Interferon regulatory factor 1
D03	Rn.93714	NM_021835	Jun	Jun oncogene
D04	Rn.15806	NM_021836	Junb	Jun B proto-oncogene
D05	Rn.46225	NM_138875	Jund	Jun D proto-oncogene
D06	Rn.30029	NM_145095	Kcnh8	Potassium voltage-gated channel, subfamily H (eag-related), member 8
D07	Rn.4210	NM_022210	Max	MYC associated factor X
D08	Rn.162435	NM_001014035	Mef2a	Myocyte enhancer factor 2a
D09	Rn.145490	NM_001017507	Mef2b	Myocyte enhancer factor 2B
D10	Rn.2477	XM_574821	Mef2c	Myocyte enhancer factor 2C
D11	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
D12	Rn.218675	NM_001106783	Myf5	Myogenic factor 5
E01	Rn.9493	NM_176079	Myod1	Myogenic differentiation 1
E02	Rn.218571	NM_001108908	Nanos2	Nanos homolog 2 (Drosophila)
E03	Rn.22934	NM_001107425	Nfat5	Nuclear factor of activated T-cells 5
E04	Rn.214090	NM_001107805	Nfatc2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
E05	Rn.217507	NM_001108447	Nfatc3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
E06	Rn.23727	NM_001107264	Nfatc4	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 4
E07	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E08	Rn.90077	NM_031553	Nfyb	Nuclear transcription factor-Y beta

Position	UniGene	GenBank	Symbol	Description
E09	Rn.90070	NM_012576	Nr3c1	Nuclear receptor subfamily 3, group C, member 1
E10	Rn.89724	NM_013001	Pax6	Paired box 6
E11	Rn.15298	NM_001109599	Pou2af1	POU class 2 associating factor 1
E12	Rn.9753	NM_013196	Ppara	Peroxisome proliferator activated receptor alpha
F01	Rn.23443	NM_013124	Pparg	Peroxisome proliferator-activated receptor gamma
F02	Rn.55115	NM_017045	Rb1	Retinoblastoma 1
F03	Rn.106948	XM_223688	Rel	V-rel reticuloendotheliosis viral oncogene homolog (avian)
F04	Rn.19480	NM_199267	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F05	N/A	XM_001058445	RGD156022 5	Similar to nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
F06	Rn.10635	NM_013130	Smad1	SMAD family member 1
F07	Rn.9774	NM_019275	Smad4	SMAD family member 4
F08	Rn.146857	NM_021692	Smad5	SMAD family member 5
F09	Rn.10862	NM_138872	Smad9	SMAD family member 9
F10	Rn.44609	NM_012655	Sp1	Sp1 transcription factor
F11	Rn.102138	XM_002726189	Sp3	Sp3 transcription factor
F12	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
G01	Rn.24237	NM_001011905	Stat2	Signal transducer and activator of transcription 2
G02	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G03	Rn.137580	NM_001012226	Stat4	Signal transducer and activator of transcription 4
G04	Rn.154399	NM_017064	Stat5a	Signal transducer and activator of transcription 5A
G05	Rn.54486	NM_022380	Stat5b	Signal transducer and activator of transcription 5B
G06	Rn.6880	NM_001044250	Stat6	Signal transducer and activator of transcription 6
G07	Rn.22712	NM_001004198	Tbp	TATA box binding protein
G08	Rn.105849	XM_001054844	Tcf7l2	Transcription factor 7-like 2 (T-cell specific, HMG-box)
G09	Rn.22545	NM_001107345	Tcfap2a	Transcription factor AP-2, alpha
G10	Rn.154349	NM_001015020	Tgfb1	TGFB-induced factor homeobox 1
G11	Rn.54443	NM_030989	Tp53	Tumor protein p53
G12	Rn.162877	NM_173290	Yy1	YY1 transcription factor
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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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