RT² Profiler PCR Array (Rotor-Gene® Format)

Human Stem Cell

Cat. no. 330231 PAHS-405ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Human Stem Cell RT² Profiler PCR Array profiles the expression of 84 genes related to the identification, growth and differentiation of stem cells. Stem-cell specific markers are included as well as stem cell differentiation markers. genes in signaling pathways important for stem cells maintenance are also contained on this array. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to stem cell biology 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.480218	NM_004827	ABCG2	ATP-binding cassette, sub-family G (WHITE), member 2
A02	Hs.2159	NM_001135	ACAN	Aggrecan
A03	Hs.118127	NM_005159	ACTC1	Actin, alpha, cardiac muscle 1
A04	Hs.12341	NM_001111	ADAR	Adenosine deaminase, RNA-specific
A05	Hs.76392	NM_000689	ALDH1A1	Aldehyde dehydrogenase 1 family, member A1
A06	Hs.632733	NM_000690	ALDH2	Aldehyde dehydrogenase 2 family (mitochondrial)
A07	Hs.37009	NM_001631	ALPI	Alkaline phosphatase, intestinal
A08	Hs.158932	NM_000038	APC	Adenomatous polyposis coli
A09	Hs.152475	NM_005170	ASCL2	Achaete-scute complex homolog 2 (Drosophila)
A10	Hs.592082	NM_003502	AXIN1	Axin 1
A11	Hs.654541	NM_199173	BGLAP	Bone gamma-carboxyglutamate (gla) protein
A12	Hs.1274	NM_006129	BMP1	Bone morphogenetic protein 1
B01	Hs.73853	NM_001200	BMP2	Bone morphogenetic protein 2
B02	Hs.387411	NM_001201	BMP3	Bone morphogenetic protein 3
B03	Hs.643802	NM_033637	BTRC	Beta-transducin repeat containing
B04	Hs.58974	NM_001237	CCNA2	Cyclin A2
B05	Hs.523852	NM_053056	CCND1	Cyclin D1
B06	Hs.376071	NM_001759	CCND2	Cyclin D2
B07	Hs.244723	NM_001238	CCNE1	Cyclin E1
B08	Hs.504048	NM_000732	CD3D	CD3d molecule, delta (CD3-TCR complex)
B09	Hs.631659	NM_000616	CD4	CD4 molecule
B10	Hs.502328	NM_000610	CD44	CD44 molecule (Indian blood group)
B11	Hs.85258	NM_001768	CD8A	CD8a molecule
B12	Hs.405667	NM_004931	CD8B	CD8b molecule
C01	Hs.690198	NM_001791	CDC42	Cell division cycle 42 (GTP binding protein, 25kDa)
C02	Hs.461086	NM_004360	CDH1	Cadherin 1, type 1, E-cadherin (epithelial)
C03	Hs.464829	NM_001792	CDH2	Cadherin 2, type 1, N-cadherin (neuronal)
C04	Hs.334562	NM_001786	CDK1	Cyclin-dependent kinase 1
C05	Hs.172928	NM_000088	COL1A1	Collagen, type I, alpha 1
C06	Hs.408182	NM_001844	COL2A1	Collagen, type II, alpha 1
C07	Hs.590892	NM_001851	COL9A1	Collagen, type IX, alpha 1
C08	Hs.534797	NM_001903	CTNNA1	Catenin (cadherin-associated protein), alpha 1, 102kDa
C09	Hs.522891	NM_000609	CXCL12	Chemokine (C-X-C motif) ligand 12
C10	Hs.524382	NM_021044	DHH	Desert hedgehog
C11	Hs.379912	NM_005618	DLL1	Delta-like 1 (Drosophila)
C12	Hs.127792	NM_016941	DLL3	Delta-like 3 (Drosophila)
D01	Hs.372152	NM_004416	DTX1	Deltex homolog 1 (Drosophila)
D02	Hs.187058	NM_020892	DTX2	Deltex homolog 2 (Drosophila)
D03	Hs.74375	NM_004421	DVL1	Dishevelled, dsh homolog 1 (Drosophila)
D04	Hs.517517	NM_001429	EP300	E1A binding protein p300
D05	Hs.483635	NM_000800	FGF1	Fibroblast growth factor 1 (acidic)
D06	Hs.284244	NM_002006	FGF2	Fibroblast growth factor 2 (basic)
D07	Hs.37092	NM_005247	FGF3	Fibroblast growth factor 3
D08	Hs.1755	NM_002007	FGF4	Fibroblast growth factor 4
D09	Hs.264887	NM_015850	FGFR1	Fibroblast growth factor receptor 1
D10	Hs.155651	NM_021784	FOXA2	Forkhead box A2
D11	Hs.126057	NM_005479	FRAT1	Frequently rearranged in advanced T-cell lymphomas
D12	Hs.94234	NM_003505	FZD1	Frizzled family receptor 1
E01	Hs.279463	NM_016204	GDF2	Growth differentiation factor 2
E02	Hs.86232	NM_020634	GDF3	Growth differentiation factor 3
E03	Hs.74471	NM_000165	GJA1	Gap junction protein, alpha 1, 43kDa
E04	Hs.333303	NM_000166	GJB1	Gap junction protein, beta 1, 32kDa
E05	Hs.524894	NM_004004	GJB2	Gap junction protein, beta 2, 26kDa
E06	Hs.3352	NM_001527	HDAC2	Histone deacetylase 2
E07	Hs.184233	NM_004134	HSPA9	Heat shock 70kDa protein 9 (mortalin)
E08	Hs.160562	NM_000618	IGF1	Insulin-like growth factor 1 (somatomedin C)
E09	Hs.505	NM_002202	ISL1	ISL LIM homeobox 1

Position	UniGene	GenBank	Symbol	Description
E10	Hs.728907	NM_000214	JAG1	Jagged 1
E11	Hs.463045	NM_021078	KAT2A	K(lysine) acetyltransferase 2A
E12	Hs.21907	NM_007067	KAT7	K(lysine) acetyltransferase 7
F01	Hs.533803	NM_032188	KAT8	K(lysine) acetyltransferase 8
F02	Hs.654570	NM_002275	KRT15	Keratin 15
F03	Hs.307734	NM_000902	MME	Membrane metallo-endopeptidase
F04	Hs.424414	NM_002448	MSX1	Msh homeobox 1
F05	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
F06	Hs.181768	NM_002478	MYOD1	Myogenic differentiation 1
F07	Hs.503878	NM_000615	NCAM1	Neural cell adhesion molecule 1
F08	Hs.567563	NM_024019	NEUROG2	Neurogenin 2
F09	Hs.495473	NM_017617	NOTCH1	Notch 1
F10	Hs.487360	NM_024408	NOTCH2	Notch 2
F11	Hs.654609	NM_003744	NUMB	Numb homolog (Drosophila)
F12	Hs.112933	NM_016948	PARD6A	Par-6 partitioning defective 6 homolog alpha (C. elegans)
G01	Hs.32938	NM_000209	PDX1	Pancreatic and duodenal homeobox 1
G02	Hs.696032	NM_006238	PPARD	Peroxisome proliferator-activated receptor delta
G03	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
G04	Hs.408528	NM_000321	RB1	Retinoblastoma 1
G05	Hs.422181	NM_006272	S100B	S100 calcium binding protein B
G06	Hs.522087	NM_005866	SIGMAR1	Sigma non-opioid intracellular receptor 1
G07	Hs.202526	NM_005986	SOX1	SRY (sex determining region Y)-box 1
G08	Hs.518438	NM_003106	SOX2	SRY (sex determining region Y)-box 2
G09	Hs.389457	NM_003181	T	T, brachyury homolog (mouse)
G10	Hs.492203	NM_198253	TERT	Telomerase reverse transcriptase
G11	Hs.511743	NM_006086	TUBB3	Tubulin, beta 3
G12	Hs.248164	NM_005430	WNT1	Wingless-type MMTV integration site family, member 1
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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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