

RT² Profiler PCR Array (Rotor-Gene® Format)

Human Hematopoiesis

Cat. no. 330231 PAHS-054ZR

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 Hematopoiesis RT² Profiler PCR Array profiles the expression of 84 genes related to the development of blood-cell lineages from HSCs through progenitor stem cells. Blood cell lineage-specific molecular markers are represented on this array. The cytokines, signaling molecules, and other regulators that are important in stem cell commitment and differentiation are included as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to hematopoietic stem cells and hematopoiesis 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.369675	NM_001146	ANGPT1	Angiopoietin 1
A02	Hs.158932	NM_000038	APC	Adenomatous polyposis coli
A03	Hs.521530	NM_004674	ASH2L	Ash2 (absent, small, or homeotic)-like (Drosophila)
A04	Hs.665244	NM_013314	BLNK	B-cell linker
A05	Hs.460988	NM_001755	CBFB	Core-binding factor, beta subunit
A06	Hs.301921	NM_001295	CCR1	Chemokine (C-C motif) receptor 1
A07	Hs.163867	NM_000591	CD14	CD14 molecule
A08	Hs.520313	NM_006016	CD164	CD164 molecule, sialomucin
A09	Hs.1799	NM_001766	CD1D	CD1d molecule
A10	Hs.523500	NM_001767	CD2	CD2 molecule
A11	Hs.355307	NM_001242	CD27	CD27 molecule
A12	Hs.374990	NM_001773	CD34	CD34 molecule
B01	Hs.504048	NM_000732	CD3D	CD3d molecule, delta (CD3-TCR complex)
B02	Hs.2259	NM_000073	CD3G	CD3g molecule, gamma (CD3-TCR complex)
B03	Hs.631659	NM_000616	CD4	CD4 molecule
B04	Hs.502328	NM_000610	CD44	CD44 molecule (Indian blood group)
B05	Hs.838	NM_005191	CD80	CD80 molecule
B06	Hs.171182	NM_006889	CD86	CD86 molecule
B07	Hs.85258	NM_001768	CD8A	CD8a molecule
B08	Hs.558308	NM_001805	CEBPE	CCAAT/enhancer binding protein (C/EBP), epsilon
B09	Hs.429666	NM_001806	CEBPG	CCAAT/enhancer binding protein (C/EBP), gamma
B10	Hs.287537	NM_015892	CHST15	Carbohydrate (N-acetylgalactosamine 4-sulfate 6-O) sulfotransferase 15
B11	Hs.591402	NM_000757	CSF1	Colony stimulating factor 1 (macrophage)
B12	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
C01	Hs.379912	NM_005618	DLL1	Delta-like 1 (Drosophila)
C02	Hs.369438	NM_005238	ETS1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
C03	Hs.504765	NM_001987	ETV6	Ets variant 6
C04	Hs.428	NM_001459	FLT3LG	Fms-related tyrosine kinase 3 ligand
C05	Hs.458713	NM_032664	FUT10	Fucosyltransferase 10 (alpha (1,3) fucosyltransferase)
C06	Hs.94234	NM_003505	FZD1	Frizzled family receptor 1
C07	Hs.765	NM_002049	GATA1	GATA binding protein 1 (globin transcription factor 1)
C08	Hs.367725	NM_032638	GATA2	GATA binding protein 2
C09	Hs.20516	NM_006037	HDAC4	Histone deacetylase 4
C10	Hs.438782	NM_005474	HDAC5	Histone deacetylase 5
C11	Hs.200063	NM_001098416	HDAC7	Histone deacetylase 7
C12	Hs.196054	NM_178425	HDAC9	Histone deacetylase 9
D01	Hs.193717	NM_000572	IL10	Interleukin 10
D02	Hs.467304	NM_000641	IL11	Interleukin 11
D03	Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
D04	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
D05	Hs.89679	NM_000586	IL2	Interleukin 2
D06	Hs.272373	NM_018724	IL20	Interleukin 20
D07	Hs.302036	NM_022789	IL25	Interleukin 25
D08	Hs.55378	NM_139017	IL31RA	Interleukin 31 receptor A
D09	Hs.532082	NM_002184	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
D10	Hs.407506	NM_002191	INHBA	Inhibin, alpha
D11	Hs.583348	NM_002192	INHBA	Inhibin, beta A
D12	Hs.728907	NM_000214	JAG1	Jagged 1
E01	Hs.433445	NM_002226	JAG2	Jagged 2
E02	Hs.479756	NM_002253	KDR	Kinase insert domain receptor (a type III receptor tyrosine kinase)
E03	Hs.479754	NM_000222	KIT	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
E04	Hs.1048	NM_003994	KITLG	KIT ligand
E05	Hs.555947	NM_016269	LEF1	Lymphoid enhancer-binding factor 1
E06	Hs.34560	NM_005574	LMO2	LIM domain only 2 (rhombotin-like 1)
E07	Hs.124922	NM_006152	LRMP	Lymphoid-restricted membrane protein
E08	Hs.80395	NM_002371	MAL	Mal, T-cell differentiation protein

Position	UniGene	GenBank	Symbol	Description
E09	Hs.95424	NM_007181	MAP4K1	Mitogen-activated protein kinase kinase kinase 1
E10	Hs.297413	NM_004994	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
E11	Hs.368971	NM_014071	NCOA6	Nuclear receptor coactivator 6
E12	Hs.709191	NM_000625	NOS2	Nitric oxide synthase 2, inducible
F01	Hs.495473	NM_017617	NOTCH1	Notch 1
F02	Hs.487360	NM_024408	NOTCH2	Notch 2
F03	Hs.436100	NM_004557	NOTCH4	Notch 4
F04	Hs.654464	NM_016734	PAX5	Paired box 5
F05	Hs.514412	NM_000442	PECAM1	Platelet/endothelial cell adhesion molecule
F06	Hs.81564	NM_002619	PF4	Platelet factor 4
F07	Hs.654514	NM_002838	PTPRC	Protein tyrosine phosphatase, receptor type, C
F08	Hs.479396	NM_005349	RBPJ	Recombination signal binding protein for immunoglobulin kappa J region
F09	Hs.149261	NM_001754	RUNX1	Runt-related transcription factor 1
F10	Hs.369440	NM_022754	SFXN1	Sideroflexin 1
F11	Hs.468426	NM_144949	SOCS5	Suppressor of cytokine signaling 5
F12	Hs.313	NM_000582	SPP1	Secreted phosphoprotein 1
G01	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
G02	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G03	Hs.135763	NM_020860	STIM2	Stromal interaction molecule 2
G04	Hs.705618	NM_003189	TAL1	T-cell acute lymphocytic leukemia 1
G05	Hs.89640	NM_000459	TEK	TEK tyrosine kinase, endothelial
G06	Hs.657724	NM_003265	TLR3	Toll-like receptor 3
G07	Hs.174312	NM_138554	TLR4	Toll-like receptor 4
G08	Hs.333791	NM_003701	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11
G09	Hs.709483	NM_006778	TRIM10	Tripartite motif containing 10
G10	Hs.116237	NM_005428	VAV1	Vav 1 guanine nucleotide exchange factor
G11	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
G12	Hs.336930	NM_033131	WNT3A	Wingless-type MMTV integration site family, member 3A
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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