RT² Profiler PCR Array (Rotor-Gene® Format)

Human T-Cell & B-Cell Activation

Cat. no. 330231 PAHS-053ZR

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 T-Cell & B-Cell Activation RT² Profiler PCR Array profiles the expression of 84 genes representing T Cell and B Cell Activation, a key part of adaptive immunity. This array includes genes involved B-cell activation as well as genes involved in B-cell proliferation and differentiation. Genes involved in the activation of T-cells and their proliferation and differentitation are also represented along with genes regulating Th1 and Th2 development and T-cell polarization. Genes involved in the activation of macrophages, neutrophils, and natural killer cells are also included. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to T Cell and B Cell Activation 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.654536	NM_000022	ADA	Adenosine deaminase
A02	Hs.149342	NM_020661	AICDA	Activation-induced cytidine deaminase
A03	Hs.158932	NM_000038	APC	Adenomatous polyposis coli
A04	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A05	Hs.716515	NM_000057	BLM	Bloom syndrome, RecQ helicase-like
A06	Hs.665244	NM_013314	BLNK	B-cell linker
A07	Hs.514107	NM_002983	CCL3	Chemokine (C-C motif) ligand 3
A08	Hs.301921	NM_001295	CCR1	Chemokine (C-C motif) receptor 1
A09	Hs.511794	NM_001123396	CCR2	Chemokine (C-C motif) receptor 2
A10	Hs.506190	NM_001837	CCR3	Chemokine (C-C motif) receptor 3
A11	Hs.184926	NM_005508	CCR4	Chemokine (C-C motif) receptor 4
A12	Hs.450802	NM_000579	CCR5	Chemokine (C-C motif) receptor 5
B01	Hs.1799	NM_001766	CD1D	CD1d molecule
B02	Hs.523500	NM_001767	CD2	CD2 molecule
B03	Hs.355307	NM_001242	CD27	CD27 molecule
B04	Hs.521989	NM_014143	CD274	CD274 molecule
B05	Hs.77873	NM_025240	CD276	CD276 molecule
B06	Hs.591629	NM_006139	CD28	CD28 molecule
B07	Hs.504048	NM_000732	CD3D	CD3d molecule, delta (CD3-TCR complex)
B08	Hs.3003	NM_000733	CD3E	CD3e molecule, epsilon (CD3-TCR complex)
B09	Hs.2259	NM_000073	CD3G	CD3g molecule, gamma (CD3-TCR complex)
B10	Hs.631659	NM_000616	CD4	CD4 molecule
B11	Hs.472860	NM_001250	CD40	CD40 molecule, TNF receptor superfamily member 5
B12	Hs.592244	NM_000074	CD40LG	CD40 ligand
C01	Hs.446414	NM_001777	CD47	CD47 molecule
C02	Hs.58685	NM_014207	CD5	CD5 molecule
C03	Hs.36972	NM_006137	CD7	CD7 molecule
C04	Hs.838	NM_005191	CD80	CD80 molecule
C05	Hs.54457	NM_004356	CD81	CD81 molecule
C06	Hs.171182	NM_006889	CD86	CD86 molecule
C07	Hs.85258	NM_001768	CD8A	CD8a molecule
C08	Hs.405667	NM_004931	CD8B	CD8b molecule
C09	Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
C10	Hs.531668	NM_002996	CX3CL1	Chemokine (C-X3-C motif) ligand 1
C11	Hs.198252	NM_001504	CXCR3	Chemokine (C-X-C motif) receptor 3
C12	Hs.593413	NM_003467	CXCR4	Chemokine (C-X-C motif) receptor 4
D01	Hs.113916	NM_001716	CXCR5	Chemokine (C-X-C motif) receptor 5
D02	Hs.368912	NM_001935	DPP4	Dipeptidyl-peptidase 4
D03	Hs.326035	NM_001964	EGR1	Early growth response 1
D04	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
D05	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
D06	Hs.247700	NM_014009	FOXP3	Forkhead box P3
D07	Hs.14155	NM_015259	ICOSLG	Inducible T-cell co-stimulator ligand
D08	Hs.856	NM_000619	IFNG	Interferon, gamma
D09	Hs.193717	NM_000572	IL10	Interleukin 10
D10	Hs.467304	NM_000641	IL11	Interleukin 11
D11	Hs.673	NM_000882	IL12A	Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)
D12	Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
E01	Hs.567294	NM_005535	IL12RB1	Interleukin 12 receptor, beta 1
E02	Hs.479347	NM_001559	IL12RB2	Interleukin 12 receptor, beta 2
E03	Hs.845	NM_002188	IL13	Interleukin 13
E04	Hs.654378	NM_000585	IL15	Interleukin 15
E05	Hs.83077	NM_001562	IL18	Interleukin 18 (interferon-gamma-inducing factor)
E06	Hs.469521	NM_003855	IL18R1	Interleukin 18 receptor 1
E07	Hs.126256	NM_000576	IL1B	Interleukin 1, beta

Position	UniGene	GenBank	Symbol	Description
E08	Hs.89679	NM_000586	IL2	Interleukin 2
E09	Hs.231367	NM_000417	IL2RA	Interleukin 2 receptor, alpha
E10	Hs.694	NM_000588	IL3	Interleukin 3 (colony-stimulating factor, multiple)
E11	Hs.73917	NM_000589	IL4	Interleukin 4
E12	Hs.513457	NM_000418	IL4R	Interleukin 4 receptor
F01	Hs.2247	NM_000879	IL5	Interleukin 5 (colony-stimulating factor, eosinophil)
F02	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
F03	Hs.591873	NM_000880	IL7	Interleukin 7
F04	Hs.624	NM_000584	IL8	Interleukin 8
F05	Hs.401013	NM_002460	IRF4	Interferon regulatory factor 4
F06	Hs.409523	NM_002286	LAG3	Lymphocyte-activation gene 3
F07	Hs.470627	NM_005356	LCK	Lymphocyte-specific protein tyrosine kinase
F08	Hs.644143	NM_003188	MAP3K7	Mitogen-activated protein kinase kinase kinase 7
F09	Hs.211580	NM_005931	MICB	MHC class I polypeptide-related sequence B
F10	Hs.712553	NM_021950	MS4A1	Membrane-spanning 4-domains, subfamily A, member 1
F11	Hs.477693	NM_006153	NCK1	NCK adaptor protein 1
F12	Hs.709191	NM_000625	NOS2	Nitric oxide synthase 2, inducible
G01	Hs.654514	NM_002838	PTPRC	Protein tyrosine phosphatase, receptor type, C
G02	Hs.73958	NM_000448	RAG1	Recombination activating gene 1
G03	Hs.103755	NM_003821	RIPK2	Receptor-interacting serine-threonine kinase 2
G04	Hs.50640	NM_003745	SOCS1	Suppressor of cytokine signaling 1
G05	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
G06	Hs.654532	NM_003263	TLR1	Toll-like receptor 1
G07	Hs.519033	NM_003264	TLR2	Toll-like receptor 2
G08	Hs.174312	NM_138554	TLR4	Toll-like receptor 4
G09	Hs.662185	NM_006068	TLR6	Toll-like receptor 6
G10	Hs.87968	NM_017442	TLR9	Toll-like receptor 9
G11	Hs.129708	NM_003807	TNFSF14	Tumor necrosis factor (ligand) superfamily, member 14
G12	Hs.116237	NM_005428	VAV1	Vav 1 guanine nucleotide exchange 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.
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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