

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

Human JAK / STAT Signaling Pathway

Cat. no. 330231 PAHS-039ZR

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 JAK / STAT Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes related to Jak- and Stat-mediated signaling. The array represents all known Jak and Stat family members, the receptors that activate them, nuclear co-factors and co-activators associated with the Stat proteins, Stat-inducible genes, and negative regulators of the pathway. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the Jak / Stat Signaling Pathway 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.212838	NM_000014	A2M	Alpha-2-macroglobulin
A02	Hs.525622	NM_005163	AKT1	V-akt murine thymoma viral oncogene homolog 1
A03	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
A04	Hs.523852	NM_053056	CCND1	Cyclin D1
A05	Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
A06	Hs.517106	NM_005194	CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
A07	Hs.440829	NM_005195	CEBPD	CCAAT/enhancer binding protein (C/EBP), delta
A08	Hs.638121	NM_016823	CRK	V-crk sarcoma virus CT10 oncogene homolog (avian)
A09	Hs.709456	NM_000567	CRP	C-reactive protein, pentraxin-related
A10	Hs.654394	NM_005211	CSF1R	Colony stimulating factor 1 receptor
A11	Hs.77367	NM_002416	CXCL9	Chemokine (C-X-C motif) ligand 9
A12	Hs.488293	NM_005228	EGFR	Epidermal growth factor receptor
B01	Hs.631624	NM_000121	EPOR	Erythropoietin receptor
B02	Hs.655207	NM_000506	F2	Coagulation factor II (thrombin)
B03	Hs.482562	NM_001992	F2R	Coagulation factor II (thrombin) receptor
B04	Hs.244139	NM_000043	FAS	Fas (TNF receptor superfamily, member 6)
B05	Hs.465778	NM_002002	FCER2	Fc fragment of IgE, low affinity II, receptor for (CD23)
B06	Hs.77424	NM_000566	FCGR1A	Fc fragment of IgG, high affinity Ia, receptor (CD64)
B07	Hs.524134	NM_002051	GATA3	GATA binding protein 3
B08	Hs.125180	NM_000163	GHR	Growth hormone receptor
B09	Hs.444356	NM_002086	GRB2	Growth factor receptor-bound protein 2
B10	Hs.518805	NM_002131	HMGA1	High mobility group AT-hook 1
B11	Hs.529400	NM_000629	IFNAR1	Interferon (alpha, beta and omega) receptor 1
B12	Hs.856	NM_000619	IFNG	Interferon, gamma
C01	Hs.520414	NM_000416	IFNGR1	Interferon gamma receptor 1
C02	Hs.504035	NM_001558	IL10RA	Interleukin 10 receptor, alpha
C03	Hs.272373	NM_018724	IL20	Interleukin 20
C04	Hs.231367	NM_000417	IL2RA	Interleukin 2 receptor, alpha
C05	Hs.84	NM_000206	IL2RG	Interleukin 2 receptor, gamma
C06	Hs.73917	NM_000589	IL4	Interleukin 4
C07	Hs.513457	NM_000418	IL4R	Interleukin 4 receptor
C08	Hs.532082	NM_002184	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
C09	Hs.465744	NM_000208	INSR	Insulin receptor
C10	Hs.436061	NM_002198	IRF1	Interferon regulatory factor 1
C11	Hs.1706	NM_006084	IRF9	Interferon regulatory factor 9
C12	Hs.458485	NM_005101	ISG15	ISG15 ubiquitin-like modifier
D01	Hs.207538	NM_002227	JAK1	Janus kinase 1
D02	Hs.656213	NM_004972	JAK2	Janus kinase 2
D03	Hs.515247	NM_000215	JAK3	Janus kinase 3
D04	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D05	Hs.25292	NM_002229	JUNB	Jun B proto-oncogene
D06	Hs.655559	NM_052972	LRG1	Leucine-rich alpha-2-glycoprotein 1
D07	Hs.632486	NM_021960	MCL1	Myeloid cell leukemia sequence 1 (BCL2-related)
D08	Hs.82906	NM_005373	MPL	Myeloproliferative leukemia virus oncogene
D09	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
D10	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
D11	Hs.709191	NM_000625	NOS2	Nitric oxide synthase 2, inducible
D12	Hs.122926	NM_000176	NR3C1	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
E01	Hs.524760	NM_002534	OAS1	2'-5'-oligoadenylate synthetase 1, 40/46kDa
E02	Hs.248156	NM_020530	OSM	Oncostatin M
E03	Hs.74615	NM_006206	PDGFRA	Platelet-derived growth factor receptor, alpha polypeptide
E04	Hs.162458	NM_016166	PIAS1	Protein inhibitor of activated STAT, 1
E05	Hs.658013	NM_004671	PIAS2	Protein inhibitor of activated STAT, 2
E06	Hs.1905	NM_000948	PRL	Prolactin
E07	Hs.368587	NM_000949	PRLR	Prolactin receptor
E08	Hs.417549	NM_002827	PTPN1	Protein tyrosine phosphatase, non-receptor type 1
E09	Hs.506852	NM_002834	PTPN11	Protein tyrosine phosphatase, non-receptor type 11

Position	UniGene	GenBank	Symbol	Description
E10	Hs.654514	NM_002838	PTPRC	Protein tyrosine phosphatase, receptor type, C
E11	Hs.15744	NM_015503	SH2B1	SH2B adaptor protein 1
E12	Hs.604588	NM_005900	SMAD1	SMAD family member 1
F01	Hs.12253	NM_005901	SMAD2	SMAD family member 2
F02	Hs.714621	NM_005902	SMAD3	SMAD family member 3
F03	Hs.75862	NM_005359	SMAD4	SMAD family member 4
F04	Hs.167700	NM_005903	SMAD5	SMAD family member 5
F05	Hs.50640	NM_003745	SOCS1	Suppressor of cytokine signaling 1
F06	Hs.485572	NM_003877	SOCS2	Suppressor of cytokine signaling 2
F07	Hs.527973	NM_003955	SOCS3	Suppressor of cytokine signaling 3
F08	Hs.708344	NM_080867	SOCS4	Suppressor of cytokine signaling 4
F09	Hs.468426	NM_144949	SOCS5	Suppressor of cytokine signaling 5
F10	Hs.620754	NM_138473	SP1	Sp1 transcription factor
F11	Hs.502511	NM_003120	SPI1	Spleen focus forming virus (SFFV) proviral integration oncogene spi1
F12	Hs.195659	NM_005417	SRC	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
G01	Hs.441498	NM_003473	STAM	Signal transducing adaptor molecule (SH3 domain and ITAM motif) 1
G02	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
G03	Hs.530595	NM_005419	STAT2	Signal transducer and activator of transcription 2, 113kDa
G04	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G05	Hs.80642	NM_003151	STAT4	Signal transducer and activator of transcription 4
G06	Hs.437058	NM_003152	STAT5A	Signal transducer and activator of transcription 5A
G07	Hs.595276	NM_012448	STAT5B	Signal transducer and activator of transcription 5B
G08	Hs.524518	NM_003153	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
G09	Hs.592081	NM_005861	STUB1	STIP1 homology and U-box containing protein 1, E3 ubiquitin protein ligase
G10	Hs.75516	NM_003331	TYK2	Tyrosine kinase 2
G11	Hs.414880	NM_007122	USF1	Upstream transcription factor 1
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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