

RT² Profiler PCR Array (Rotor-Gene® Format)

Pig JAK / STAT Signaling Pathway

Cat. no. 330231 PASS-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 Pig 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 cyclers (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
1	Ssc.56900	XM_013988396	A2M	Alpha-2-macroglobulin
2	Ssc.19672	NM_001159776	AKT1	V-akt murine thymoma viral oncogene homolog 1
3	Ssc.94302	NM_214285	BCL2L1	BCL2-like 1
4	Ssc.5737	XM_001929558	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
5	Ssc.32416	NM_001199889	CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
6	Ssc.97280	XM_005663091	CEBPD	CCAAT/enhancer binding protein (C/EBP), delta
7	N/A	XM_005674605	CISH	Cytokine inducible SH2-containing protein
8	Ssc.94492	NM_213880	JUN	C-JUN protein
9	Ssc.16157	NM_213844	CRP	C-reactive protein, pentraxin-related
10	Ssc.26146	NM_001114289	CXCL9	Chemokine (C-X-C motif) ligand 9
11	Ssc.54725	NM_214007	EGFR	Epidermal growth factor receptor
12	Ssc.15896	NM_214134	EPO	Erythropoietin
13	Ssc.16355	NM_214292	EPOR	Erythropoietin receptor
14	Ssc.81556	NM_001244372	F2R	Coagulation factor II (thrombin) receptor
15	Ssc.14497	NM_213839	FAS	Fas (TNF receptor superfamily, member 6)
16	Ssc.51682	NM_001145217	FCER2	Fc fragment of IgE, low affinity II, receptor for (CD23)
17	Ssc.24944	NM_001033011	FCGR1A	Fc fragment of IgG, high affinity Ia, receptor (CD64)
18	Ssc.21354	NM_001044567	GATA3	GATA binding protein 3
19	Ssc.39535	NM_001128473	GBP1	Guanylate binding protein 1, interferon-inducible
20	Ssc.883	NM_001128474	GBP2	Guanylate binding protein 2, interferon-inducible
21	Ssc.93799	NM_214254	GHR	Growth hormone receptor
22	Ssc.41215	NM_001137628	GRB2	Growth factor receptor-bound protein 2
23	Ssc.11381	NM_213772	IFNAR1	Interferon (alpha, beta and omega) receptor 1
24	Ssc.4093	NM_213948	IFNG	Interferon-gamma
25	Ssc.9565	NM_001177907	IFNGR1	Interferon gamma receptor 1
26	Ssc.55412	XM_005656637	IL10RA	Interleukin 10 receptor, alpha
27	Ssc.15484	NM_213771	IL10RB	Interleukin 10 receptor, beta
28	Ssc.51661	XM_003130465	IL20	Interleukin-20-like
29	Ssc.15739	NM_214083	IL2RG	Interleukin 2 receptor, gamma
30	Ssc.15837	NM_214123	IL4	Interleukin 4
31	Ssc.17244	NM_214340	IL4R	Interleukin 4 receptor
32	Ssc.25033	NM_001097432	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
33	Ssc.15986	XM_005654749	INSR	Insulin receptor
34	Ssc.19494	NM_001097413	IRF1	Interferon regulatory factor 1
35	Ssc.11557	NM_001128469	ISG15	ISG15 ubiquitin-like modifier
36	Ssc.328	NM_214114	JAK1	Janus kinase 1
37	Ssc.324	NM_214113	JAK2	Janus kinase 2
38	Ssc.38907	XM_003123500	JAK3	Janus kinase 3

Position	UniGene	GenBank	Symbol	Description
39	Ssc.101817	XM_005674483	JUNB	Jun B proto-oncogene
40	Ssc.1625	NM_001078670	IRF9	Interferon regulatory factor 9
41	Ssc.32074	XM_003123071	LRG1	Leucine-rich alpha-2-glycoprotein-like
42	Ssc.95917	NM_214361	MCL1	Myeloid cell leukemia sequence 1 (BCL2-related)
43	N/A	XM_013999452	MPL	Myeloproliferative leukemia virus oncogene
44	Ssc.21433	NM_001005154	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
45	Ssc.17816	NM_001048232	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
46	Ssc.16117	NM_001143690	NOS2	Nitric oxide synthase 2, inducible
47	Ssc.15928	NM_001008481	NR3C1	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
48	Ssc.1031	NM_214303	OAS1	2'-5'-oligoadenylate synthetase 1, 40/46kDa
49	N/A	XM_001929161	OSM	Oncostatin-M-like
50	Ssc.13288	XM_013978679	LOC100524633	Platelet-derived growth factor receptor, alpha polypeptide
51	Ssc.5358	XM_003121749	PIAS1	Protein inhibitor of activated STAT, 1
52	N/A	XM_003361616	PIAS2	Protein inhibitor of activated STAT, 2
53	Ssc.6032	XM_003125792	PIAS3	Protein inhibitor of activated STAT, 3
54	Ssc.8204	NM_213926	PRL	Prolactin
55	Ssc.27607	NM_001001868	PRLR	Prolactin receptor
56	Ssc.16540	NM_001113435	PTPN1	Protein tyrosine phosphatase, non-receptor type 1
57	Ssc.78458	XM_013990361	PTPN11	Protein tyrosine phosphatase, non-receptor type 11
58	Ssc.18617	XM_003130596	PTPRC	Protein tyrosine phosphatase, receptor type, C
59	Ssc.4355	XM_003124516	SH2B1	SH2B adaptor protein 1
60	N/A	XM_003480993	SH2B2	SH2B adaptor protein 2
61	Ssc.30461	NM_001011508	SIRPA	Signal-regulatory protein alpha
62	Ssc.11757	NM_213965	SMAD1	SMAD family member 1
63	Ssc.45636	NM_001256148	SMAD2	SMAD family member 2
64	Ssc.15913	NM_214137	SMAD3	SMAD family member 3
65	Ssc.249	NM_214072	SMAD4	SMAD family member 4
66	Ssc.26216	NM_001204768	SOC51	Suppressor of cytokine signaling 1
67	Ssc.6475	NM_001097461	SOC52	Suppressor of cytokine signaling 2
68	Ssc.42668	NM_001123196	SOC53	Suppressor of cytokine signaling 3
69	Ssc.39968	NM_001162889	SOC54	Suppressor of cytokine signaling 4
70	Ssc.28813	NM_001162890	SOC55	Suppressor of cytokine signaling 5
71	N/A	XM_003355406	SP1	Sp1 transcription factor
72	Ssc.20177	NM_001001865	SPI1	Spleen focus forming virus (SFFV) proviral integration oncogene spi1
73	Ssc.21348	NM_001267835	SPRY1	Sprouty homolog 1, antagonist of FGF signaling (Drosophila)
74	N/A	XM_001928614	SRC	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
75	Ssc.7928	XM_003130724	STAM	Signal transducing adaptor molecule (SH3 domain and ITAM motif) 1
76	Ssc.42622	NM_213769	STAT1	Signal transducer and activator of transcription 1, 91kDa
77	Ssc.14520	NM_213889	STAT2	Signal transducer and activator of transcription 2, 113kDa
78	Ssc.3409	NM_001044580	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)

Position	UniGene	GenBank	Symbol	Description
79	Ssc.15914	NM_001197305	STAT4	Signal transducer and activator of transcription 4
80	Ssc.93778	NM_214290	STAT5A	Signal transducer and activator of transcription 5A
81	Ssc.16047	NM_214168	STAT5B	Signal transducer and activator of transcription 5B
82	Ssc.55156	XM_003124708	STUB1	E3 ubiquitin-protein ligase CHIP-like
83	Ssc.5096	NM_001114670	TYK2	Tyrosine kinase 2
84	Ssc.28096	NM_001190245	USF1	Upstream transcription factor 1
85	Ssc.10316	XM_003124280	ACTB	Actin, beta
86	Ssc.73773	NM_213978	B2M	Beta-2-microglobulin
87	Ssc.16135	NM_001206359	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
88	Ssc.4158	NM_001032376	HPRT1	Hypoxanthine phosphoribosyltransferase 1
89	Ssc.27927	NM_001244068	RPL13A	Ribosomal protein L13a
90	N/A	SA_00133	SGDC	Pig Genomic DNA Contamination
91	N/A	SA_00104	RTC	Reverse Transcription Control
92	N/A	SA_00104	RTC	Reverse Transcription Control
93	N/A	SA_00104	RTC	Reverse Transcription Control
94	N/A	SA_00103	PPC	Positive PCR Control
95	N/A	SA_00103	PPC	Positive PCR Control
96	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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