

RT² Profiler PCR Array (Rotor-Gene® Format)

Pig Oxidative Stress

Cat. no. 330231 PASS-065ZR

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 Oxidative Stress RT² Profiler™ PCR Array profiles the expression of 84 genes related to oxidative stress. Peroxidases are represented on this array including glutathione peroxidases (GPx) and peroxiredoxins (TPx). Also included are the genes involved in reactive oxygen species (ROS) metabolism, such as oxidative stress responsive genes and genes involved in superoxide metabolism such as superoxide dismutases (SOD). Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to oxidative stress 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.56897	NM_001005208	ALB	Albumin
2	N/A	XM_003483092	ALOX12	Arachidonate 12-lipoxygenase
3	Ssc.30405	NM_001308473	AOX1	Aldehyde oxidase-like
4	Ssc.1342	NM_214308	APOE	Apolipoprotein E
5	N/A	XM_003128336	BAG2	BAG family molecular chaperone regulator 2-like
6	N/A	XM_003359404	BNIP3	BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like
7	Ssc.1018	NM_214301	CAT	Catalase
8	Ssc.22030	NM_001129946	CCL5	Chemokine (C-C motif) ligand 5
9	Ssc.98100	XM_003131179	CYGB	Cytoglobin-like
10	Ssc.48383	NM_001243354	DHCR24	24-dehydrocholesterol reductase
11	Ssc.35919	NM_214096	DUOX1	Dual oxidase 1
12	Ssc.33	NM_213999	DUOX2	Dual oxidase 2
13	Ssc.6058	NM_001256075	DUSP1	Dual specificity phosphatase 1
14	Ssc.8278	NM_001001641	EPHX2	Epoxide hydrolase 2, cytoplasmic
15	Ssc.33169	XM_003131642	EPX	Eosinophil peroxidase
16	Ssc.3548	XM_013995898	FHL2	Four and a half LIM domains protein 2-like
17	Ssc.1886	XM_005664081	FOXO1	Forkhead box M1
18	Ssc.42834	NM_213975	FTH1	Ferritin, heavy polypeptide 1
19	Ssc.11731	XM_003482164	GCLC	Glutamate-cysteine ligase, catalytic subunit
20	Ssc.24693	XM_001926378	GCLM	Glutamate-cysteine ligase, modifier subunit
21	Ssc.7423	NM_001177925	GLA	Alpha-galactosidase A
22	Ssc.97679	NM_214043	GP91-PHOX	NADPH oxidase heavy chain subunit
23	Ssc.6352	NM_214201	GPX1	Glutathione peroxidase 1
24	Ssc.18918	NM_001115136	GPX2	Glutathione peroxidase 2 (gastrointestinal)
25	Ssc.79705	NM_001115155	GPX3	Glutathione peroxidase 3 (plasma)
26	Ssc.93915	NM_214407	GPX4	Glutathione peroxidase 4 (phospholipid hydroperoxidase)
27	Ssc.14513	NM_213886	GPX5	Glutathione peroxidase 5 (epididymal androgen-related protein)
28	Ssc.54141	NM_001244625	GSS	Glutathione synthetase
29	Ssc.19562	NM_001243638	GSTZ1	Glutathione S-transferase zeta 1
30	Ssc.115	NM_001004027	HMOX1	Heme oxygenase (decycling) 1
31	Ssc.5145	NM_213766	HSP70.2	Heat shock protein 70.2
32	Ssc.12191	NM_213973	HSP90AA1	90-kDa heat shock protein
33	Ssc.8969	XM_003481587	KRT1	Keratin 1
34	Ssc.2457	NM_001243608	LHPP	Phospholysine phosphohistidine inorganic pyrophosphate phosphatase
35	Ssc.37828	XM_013991081	LOC100049683	Solute carrier family 7 (anionic amino acid transporter light chain, xc-system), member 11
36	Ssc.26310	XM_013981114	LOC100516395	Lactoperoxidase-like
37	Ssc.19448	XM_005657567	TTN	Titin-like
38	N/A	XM_003354346	LOC100622575	Pancreatic secretory trypsin inhibitor-like

Position	UniGene	GenBank	Symbol	Description
39	Ssc.12999	XM_005660622	LOC100739163	Glutathione S-transferase P
40	Ssc.23488	XM_003483635	GSR	Glutathione-disulfide reductase
41	Ssc.71041	NM_001044570	LOC733635	Aldo-keto reductase family 1 member C2-like
42	Ssc.715	NM_214236	MB	Myoglobin
43	Ssc.15845	NM_214125	MBL2	Mannose-binding lectin (protein C) 2, soluble
44	Ssc.10955	NM_001044556	MGST3	Microsomal glutathione S-transferase 3
45	N/A	XM_003131655	MPO	Myeloperoxidase
46	N/A	XM_013989580	MPV17	MpV17 mitochondrial inner membrane protein
47	Ssc.9753	XM_003359049	MSRA	Peptide methionine sulfoxide reductase
48	Ssc.9079	NM_214056	MT-III	Metallothionein-III
49	Ssc.12159	NM_001113220	NCF1	Neutrophil cytosolic factor 1
50	Ssc.9495	NM_001123142	NCF2	Neutrophil cytosolic factor 2
51	Ssc.18384	XM_003121219	NCOA7	Nuclear receptor coactivator 7
52	Ssc.16117	NM_001143690	NOS2	Nitric oxide synthase 2, inducible
53	Ssc.46957	XM_003129745	NOX4	NADPH oxidase 4
54	N/A	XM_013993336	NOX5	NADPH oxidase, EF-hand calcium binding domain 5
55	Ssc.54065	NM_001159613	NQO1	NAD(P)H dehydrogenase, quinone 1
56	Ssc.54406	NM_001244568	NUDT1	Nudix (nucleoside diphosphate linked moiety X)-type motif 1
57	Ssc.98353	XM_003481362	OXR1	Oxidation resistance 1
58	Ssc.94482	NM_214342	OXSRI	Oxidative-stress responsive 1
59	Ssc.3996	XM_013983599	PDLIM1	PDZ and LIM domain 1
60	Ssc.5380	XM_003128042	PRDX1	Peroxiredoxin-1-like
61	Ssc.16653	NM_001244474	PRDX2	Peroxiredoxin 2
62	Ssc.1490	NM_001244531	PRDX3	Peroxiredoxin 3
63	Ssc.29335	XM_001927369	PRDX4	Peroxiredoxin 4
64	Ssc.460	NM_214144	PRDX5	Peroxiredoxin 5
65	Ssc.2979	NM_214408	PRDX6	Peroxiredoxin 6
66	Ssc.97888	NM_001008687	PRNP	Prion protein
67	Ssc.14490	NM_214385	PTGR1	Prostaglandin reductase 1
68	Ssc.1986	XM_001926129	PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)
69	Ssc.23994	NM_214321	PTGS2	Prostaglandin G/H synthase-2
70	Ssc.18436	NM_001245011	RNF7	Ring finger protein 7
71	N/A	XM_003359041	SCARA3	Scavenger receptor class A, member 3
72	Ssc.8479	NM_001134823	SEPP1	Selenoprotein P, plasma, 1
73	Ssc.319	NM_214110	SFTPD	Surfactant protein D
74	Ssc.6381	NM_001114271	SIRT2	Sirtuin 2
75	Ssc.12390	NM_001190422	SOD1	Superoxide dismutase 1, soluble
76	Ssc.2773	NM_001078688	SOD3	Extracellular superoxide dismutase
77	Ssc.3612	XM_003123639	SQSTM1	Sequestosome-1-like
78	N/A	XM_003121778	TRAPPC6B	Trafficking protein particle complex subunit 6B-like

Position	UniGene	GenBank	Symbol	Description
79	Ssc.16092	XM_003483692	TTN	Titin
80	Ssc.95971	NM_214313	TXN	Thioredoxin
81	Ssc.34523	NM_214154	TXNRD1	Thioredoxin reductase 1
82	Ssc.49285	NM_001168702	TXNRD2	Thioredoxin reductase 2
83	Ssc.16350	NM_214289	UCP2	Uncoupling protein 2 (mitochondrial, proton carrier)
84	Ssc.2739	NM_001164113	VIMP	Selenoprotein S
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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