

RT² Profiler PCR Array (Rotor-Gene® Format)

Pig Drug Transporters

Cat. no. 330231 PASS-070ZR

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 Drug Transporters RT² Profiler™ PCR Array contains 84 transporter genes. Transporters play key roles in pharmacology, affecting entry and extrusion of drugs into and out of cells. Transporters important to the absorption, distribution, metabolism and excretion of many drugs are included on this array. In addition, transporters that contribute to sensitivity and resistance of tumor cells to anticancer agents are represented. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to drug transporters 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.97021	XM_013993722	ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1
2	N/A	XM_013977957	ABCA13	ATP-binding cassette, sub-family A (ABC1), member 13
3	N/A	XM_005655176	ABCA3	ATP-binding cassette, sub-family A (ABC1), member 3
4	Ssc.10677	XM_001924464	ABCA4	ABC transporter
5	N/A	XM_013980813	ABCA5	ATP-binding cassette, sub-family A (ABC1), member 5
6	N/A	XM_003131258	ABCA9	ATP-binding cassette, sub-family A (ABC1), member 9
7	Ssc.98237	XM_003130205	ABCB1	ATP-binding cassette, sub-family B (MDR/TAP), member 1
8	Ssc.50371	XM_003133457	ABCB11	ATP-binding cassette, sub-family B (MDR/TAP), member 11
9	Ssc.51683	XM_005656694	ABCB4	ATP-binding cassette, sub-family B (MDR/TAP), member 4
10	Ssc.19041	XM_005672225	ABCB6	ATP-binding cassette, sub-family B (MDR/TAP), member 6
11	Ssc.21338	XM_001928719	ABCB7	ATP-binding cassette, sub-family B (MDR/TAP), member 7
12	Ssc.100203	XM_013995627	ABCC1	ATP-binding cassette, sub-family C (CFTR/MRP), member 1
13	N/A	XM_013977961	ABCC10	ATP-binding cassette, sub-family C (CFTR/MRP), member 10
14	N/A	XM_013991880	ABCC12	ATP-binding cassette, sub-family C (CFTR/MRP), member 12
15	Ssc.16332	XM_001929359	ABCC2	ATP-binding cassette, sub-family C (CFTR/MRP), member 2
16	Ssc.80792	XM_003131575	ABCC3	Canalicular multispecific organic anion transporter 2-like
17	Ssc.39422	XM_003135473	ABCD1	ATP-binding cassette, sub-family D (ALD), member 1
18	Ssc.102398	XM_005664139	ABCD2	ATP-binding cassette, sub-family D (ALD), member 2
19	Ssc.97232	XM_003129170	ABCE1	ATP-binding cassette sub-family E member 1-like
20	Ssc.1504	NM_001123069	ABCF1	ATP-binding cassette, sub-family F (GCN20), member 1
21	Ssc.94354	NM_214010	ABCG2	ATP-binding cassette, sub-family G (WHITE), member 2
22	Ssc.26516	XM_013987908	ABCG8	ATP-binding cassette, sub-family G (WHITE), member 8
23	Ssc.85395	NM_214454	AQP1	Aquaporin 1 (Colton blood group)
24	Ssc.47024	NM_001113438	AQP7	Aquaporin 7
25	Ssc.61682	NM_001112684	AQP9	Aquaporin 9
26	Ssc.5366	XM_003124744	ATP6V0C	V-type proton ATPase 16 kDa proteolipid subunit-like
27	Ssc.38208	XM_003135200	ATP7A	ATPase, Cu ⁺⁺ transporting, alpha polypeptide
28	Ssc.49767	XM_005668387	ATP7B	ATPase, Cu ⁺⁺ transporting, beta polypeptide
29	Ssc.10107	NM_214100	CTR1	High-affinity copper uptake protein
30	Ssc.37828	XM_013991081	LOC100049683	Solute carrier family 7 (anionic amino acid transporter light chain, xc- system), member 11
31	N/A	XM_001929196	LOC100154911	ATP-binding cassette sub-family D member 4
32	N/A	XM_013984464	LOC100512445	ATP-binding cassette, sub-family A (ABC1), member 12
33	N/A	XM_005673723	LOC100513513	Solute carrier family 16, member 2 (thyroid hormone transporter)
34	N/A	XM_013979025	LOC100513626	ATP-binding cassette, sub-family C (CFTR/MRP), member 5
35	Ssc.63195	XM_003355548	LOC100620829	Solute carrier organic anion transporter family, member 1B3
36	N/A	XM_003353618	LOC100622399	High affinity copper uptake protein 1
37	N/A	XM_005674630	LOC100738425	Multidrug resistance-associated protein 4
38	N/A	XM_003354549	MVP	Major vault protein

Position	UniGene	GenBank	Symbol	Description
39	Ssc.17339	NM_214347	SLC15A1	Solute carrier family 15 (oligopeptide transporter), member 1
40	Ssc.94556	NM_001097514	SLC15A2	Solute carrier family 15 (H ⁺ /peptide transporter), member 2
41	Ssc.98031	NM_001128445	SLC16A1	Solute carrier family 16, member 1 (monocarboxylic acid transporter 1)
42	Ssc.22067	XM_013989834	SLC16A3	Solute carrier family 16, member 3 (monocarboxylic acid transporter 4)
43	N/A	XM_013977489	SLC17A3	Solute carrier family 17 (sodium phosphate), member 4
44	Ssc.49933	XM_013990243	SLC18A1	Solute carrier family 18 (vesicular monoamine transporter), member 1
45	N/A	XM_005657183	SLC19A1	Solute carrier family 19 (folate transporter), member 1
46	Ssc.22020	NM_001142667	SLC19A2	Feline leukemia virus subgroup A receptor
47	N/A	XM_003133695	SLC19A3	Thiamine transporter 2-like
48	Ssc.23507	NM_213989	SLC22A1	Organic cation transporter 1
49	N/A	XM_003122589	SLC22A11	Solute carrier family 22 member 11-like
50	Ssc.14537	NM_213902	SLC22A2	Solute carrier family 22 (organic cation transporter), member 2
51	Ssc.44245	XM_003121106	SLC22A3	Solute carrier family 22 (extraneuronal monoamine transporter), member 3
52	Ssc.52467	XM_003123912	SLC22A5	Solute carrier family 22 (organic cation/carnitine transporter), member 5
53	Ssc.15835	NM_001001261	SLC22A6	Organic anion transporter-like
54	Ssc.54135	NM_001044617	SLC22A7	Solute carrier family 22 (organic anion transporter), member 7
55	Ssc.27597	NM_214455	SLC22A8	Solute carrier family 22 (organic anion transporter), member 8
56	Ssc.97289	XM_003130160	SLC25A13	Solute carrier family 25, member 13 (citrin)
57	N/A	XM_005659640	SLC28A2	Sodium/nucleoside cotransporter 1-like
58	Ssc.1579	XM_003128425	SLC29A1	Solute carrier family 29 (nucleoside transporters), member 1
59	N/A	XM_003122487	SLC29A2	Equilibrative nucleoside transporter 2-like
60	Ssc.96919	XM_013977359	SLC2A1	Solute carrier family 2 (facilitated glucose transporter), member 1
61	Ssc.26564	NM_001097417	SLC2A2	Solute carrier family 2 (facilitated glucose transporter), member 2
62	Ssc.58600	XM_013988404	SLC2A3	Solute carrier family 2 (facilitated glucose transporter), member 3
63	Ssc.19836	NM_001244427	SLC31A2	Solute carrier family 31 (copper transporters), member 2
64	Ssc.99550	XM_003126626	SLC38A2	Sodium-coupled neutral amino acid transporter 2-like
65	Ssc.43763	NM_001243482	SLC38A5	Solute carrier family 38, member 5
66	Ssc.7947	NM_001123042	SLC3A1	Solute carrier family 3 (cystine, dibasic and neutral amino acid transporters, activator of cystine, dibasic and neutral amino acid transport), member 1
67	Ssc.2330	XM_003353809	SLC3A2	Solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2
68	Ssc.19262	XM_003132033	SLC47A2	Multidrug and toxin extrusion protein 2-like
69	Ssc.161	NM_001164021	SLC5A1	Solute carrier family 5 (sodium/glucose cotransporter), member 1
70	Ssc.16113	NM_214182	SLC5A4	Solute carrier family 5 (low affinity glucose cotransporter), member 4
71	Ssc.87367	NM_001012613	SLC7A1	Solute carrier family 7 (cationic amino acid transporter, y ⁺ system), member 1
72	N/A	XM_003127014	SLC7A10	Solute carrier family 7 (neutral amino acid transporter light chain, asc system), member 10
73	Ssc.42516	NM_001110420	SLC7A2	Solute carrier family 7 (cationic amino acid transporter, y ⁺ system), member 2
74	Ssc.71688	NM_001130973	SLC7A3	Solute carrier family 7 (cationic amino acid transporter, y ⁺ system), member 3
75	Ssc.24373	NM_001243816	SLC7A4	Solute carrier family 7 (orphan transporter), member 4
76	Ssc.3715	NM_001110421	SLC7A7	Solute carrier family 7 (amino acid transporter light chain, y ⁺ L system), member 7
77	N/A	XM_003128550	SLC7A8	Large neutral amino acids transporter small subunit 2-like

Position	UniGene	GenBank	Symbol	Description
78	Ssc.3800	NM_001110171	SLC7A9	Solute carrier family 7 (glycoprotein-associated amino acid transporter light chain, bo,+ system), member 9
79	Ssc.16331	NM_001256595	SLCO1A2	Solute carrier organic anion transporter family, member 1A2
80	Ssc.86815	NM_001123195	SLCO2A1	Solute carrier organic anion transporter family, member 2A1
81	Ssc.38986	XM_005667132	SLCO2B1	Solute carrier organic anion transporter family, member 2B1
82	Ssc.48131	XM_001924347	SLCO3A1	SLCO3A1 protein
83	Ssc.16732	NM_213960	VDAC1	Voltage-dependent anion channel 1
84	Ssc.56990	NM_214369	VDAC2	Voltage-dependent anion channel 2
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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