RT² Profiler PCR Array (Rotor-Gene® Format)

Human Drug Transporters

Cat. no. 330231 PAHS-070ZR

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 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 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.429294	NM_005502	ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1
A02	Hs.134585	NM_173076	ABCA12	ATP-binding cassette, sub-family A (ABC1), member 12
A03	Hs.226568	NM_152701	ABCA13	ATP-binding cassette, sub-family A (ABC1), member 13
A04	Hs.421202	NM_001606	ABCA2	ATP-binding cassette, sub-family A (ABC1), member 2
A05	Hs.26630	NM_001089	ABCA3	ATP-binding cassette, sub-family A (ABC1), member 3
A06	Hs.416707	NM_000350	ABCA4	ATP-binding cassette, sub-family A (ABC1), member 4
A07	Hs.421474	NM_018672	ABCA5	ATP-binding cassette, sub-family A (ABC1), member 5
A08	Hs.131686	NM_080283	ABCA9	ATP-binding cassette, sub-family A (ABC1), member 9
A09	Hs.489033	NM_000927	ABCB1	ATP-binding cassette, sub-family B (MDR/TAP), member 1
A10	Hs.658439	NM_003742	ABCB11	ATP-binding cassette, sub-family B (MDR/TAP), member 11
A11	Hs.654403	NM_000443	ABCB4	ATP-binding cassette, sub-family B (MDR/TAP), member 4
A12	Hs.658821	NM_178559	ABCB5	ATP-binding cassette, sub-family B (MDR/TAP), member 5
B01	Hs.107911	NM_005689	ABCB6	ATP-binding cassette, sub-family B (MDR/TAP), member 6
B02	Hs.709181	NM_004996	ABCC1	ATP-binding cassette, sub-family C (CFTR/MRP), member 1
B03	Hs.55879	NM_033450	ABCC10	ATP-binding cassette, sub-family C (CFTR/MRP), member 10
B04	Hs.652267	NM_032583	ABCC11	ATP-binding cassette, sub-family C (CFTR/MRP), member 11
B05	Hs.410111	NM_033226	ABCC12	ATP-binding cassette, sub-family C (CFTR/MRP), member 12
B06	Hs.368243	NM_000392	ABCC2	ATP-binding cassette, sub-family C (CFTR/MRP), member 2
B07	Hs.463421	NM_003786	ABCC3	ATP-binding cassette, sub-family C (CFTR/MRP), member 3
B08	Hs.508423	NM_005845	ABCC4	ATP-binding cassette, sub-family C (CFTR/MRP), member 4
B09	Hs.728765	NM_005688	ABCC5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5
B10	Hs.159546	NM_000033	ABCD1	ATP-binding cassette, sub-family D (ALD), member 1
B11	Hs.700576	NM_002858	ABCD3	ATP-binding cassette, sub-family D (ALD), member 3
B12	Hs.94395	NM_005050	ABCD4	ATP-binding cassette, sub-family D (ALD), member 4
C01	Hs.655285	NM_001090	ABCF1	ATP-binding cassette, sub-family F (GCN20), member 1
C02	Hs.480218	NM_004827	ABCG2	ATP-binding cassette, sub-family G (WHITE), member 2
C03	Hs.413931	NM_022437	ABCG8	ATP-binding cassette, sub-family G (WHITE), member 8
C04	Hs.76152	NM_198098	AQP1	Aquaporin 1 (Colton blood group)
C05	Hs.455323	NM_001170	AQP7	Aquaporin 7
C06	Hs.104624	NM_020980	AQP9	Aquaporin 9
C07	Hs.389107	NM_001694	ATP6V0C	ATPase, H+ transporting, lysosomal 16kDa, V0 subunit c
C08	Hs.496414	NM_000052	ATP7A	ATPase, Cu++ transporting, alpha polypeptide
C09	Hs.492280	NM_000053	ATP7B	ATPase, Cu++ transporting, beta polypeptide
C10	Hs.632177	NM_017458	MVP	Major vault protein
C11	Hs.952	NM_003049	SLC10A1	Solute carrier family 10 (sodium/bile acid cotransporter family), member 1
C12	Hs.194783	NM_000452	SLC10A2	Solute carrier family 10 (sodium/bile acid cotransporter family), member 2
D01	Hs.436893	NM_005073	SLC15A1	Solute carrier family 15 (oligopeptide transporter), member 1
D02	Hs.518089	NM_021082	SLC15A2	Solute carrier family 15 (H+/peptide transporter), member 2
D03	Hs.75231	NM_003051	SLC16A1	Solute carrier family 16, member 1 (monocarboxylic acid transporter 1)
D04	Hs.75317	NM_006517	SLC16A2	Solute carrier family 16, member 2 (monocarboxylic acid transporter 8)
D05	Hs.500761	NM_004207	SLC16A3	Solute carrier family 16, member 3 (monocarboxylic acid transporter 4)
D06	Hs.84190	NM_194255	SLC19A1	Solute carrier family 19 (folate transporter), member 1
D07	Hs.30246	NM_006996	SLC19A2	Solute carrier family 19 (thiamine transporter), member 2
D08	Hs.221597	NM_025243	SLC19A3	Solute carrier family 19, member 3
D09	Hs.117367	NM_003057	SLC22A1	Solute carrier family 22 (organic cation transporter), member 1
D10	Hs.436385	NM_003058	SLC22A2	Solute carrier family 22 (organic cation transporter), member 2
D11	Hs.567337	NM_021977	SLC22A3	Solute carrier family 22 (extraneuronal monoamine transporter), member 3
D12	Hs.369252	NM_004790	SLC22A6	Solute carrier family 22 (organic anion transporter), member 6
E01	Hs.485438	NM_006672	SLC22A7	Solute carrier family 22 (organic anion transporter), member 7
E02	Hs.266223	NM_004254	SLC22A8	Solute carrier family 22 (organic anion transporter), member 8
E03	Hs.502772	NM_080866	SLC22A9	Solute carrier family 22 (organic anion transporter), member 9
E04	Hs.489190	NM_014251	SLC25A13	Solute carrier family 25, member 13 (citrin)
E05	Hs.459187	NM_004213	SLC28A1	Solute carrier family 28 (sodium-coupled nucleoside transporter), member 1
E06	Hs.367833	NM_004212	SLC28A2	Solute carrier family 28 (sodium-coupled nucleoside transporter), member 2
E07	Hs.591877	NM_022127	SLC28A3	Solute carrier family 28 (sodium-coupled nucleoside transporter), member 3
E08	Hs.25450	NM_004955	SLC29A1	Solute carrier family 29 (nucleoside transporters), member 1
E09	Hs.569017	NM_001532	SLC29A2	Solute carrier family 29 (nucleoside transporters), member 2

Position	UniGene	GenBank	Symbol	Description
E10	Hs.473721	NM_006516	SLC2A1	Solute carrier family 2 (facilitated glucose transporter), member 1
E11	Hs.167584	NM_000340	SLC2A2	Solute carrier family 2 (facilitated glucose transporter), member 2
E12	Hs.419240	NM_006931	SLC2A3	Solute carrier family 2 (facilitated glucose transporter), member 3
F01	Hs.532315	NM_001859	SLC31A1	Solute carrier family 31 (copper transporters), member 1
F02	Hs.221847	NM_018976	SLC38A2	Solute carrier family 38, member 2
F03	Hs.195155	NM_033518	SLC38A5	Solute carrier family 38, member 5
F04	Hs.112916	NM_000341	SLC3A1	Solute carrier family 3 (cystine, dibasic and neutral amino acid transporters, activator of cystine, dibasic and neutral amino acid transport), member 1
F05	Hs.502769	NM_002394	SLC3A2	Solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2
F06	Hs.1964	NM_000343	SLC5A1	Solute carrier family 5 (sodium/glucose cotransporter), member 1
F07	Hs.130101	NM_014227	SLC5A4	Solute carrier family 5 (low affinity glucose cotransporter), member 4
F08	Hs.390594	NM_014331	SLC7A11	Solute carrier family 7 (anionic amino acid transporter light chain, xc- system), member 11
F09	Hs.513797	NM_003486	SLC7A5	Solute carrier family 7 (amino acid transporter light chain, L system), member 5
F10	Hs.653193	NM_003983	SLC7A6	Solute carrier family 7 (amino acid transporter light chain, y+L system), member 6
F11	Hs.513147	NM_003982	SLC7A7	Solute carrier family 7 (amino acid transporter light chain, y+L system), member 7
F12	Hs.632348	NM_182728	SLC7A8	Solute carrier family 7 (amino acid transporter light chain, L system), member 8
G01	Hs.408567	NM_014270	SLC7A9	Solute carrier family 7 (glycoprotein-associated amino acid transporter light chain, bo,+ system), member 9
G02	Hs.46440	NM_021094	SLCO1A2	Solute carrier organic anion transporter family, member 1A2
G03	Hs.449738	NM_006446	SLCO1B1	Solute carrier organic anion transporter family, member 1B1
G04	Hs.504966	NM_019844	SLCO1B3	Solute carrier organic anion transporter family, member 1B3
G05	Hs.518270	NM_005630	SLCO2A1	Solute carrier organic anion transporter family, member 2A1
G06	Hs.7884	NM_007256	SLCO2B1	Solute carrier organic anion transporter family, member 2B1
G07	Hs.311187	NM_013272	SLCO3A1	Solute carrier organic anion transporter family, member 3A1
G08	Hs.235782	NM_016354	SLCO4A1	Solute carrier organic anion transporter family, member 4A1
G09	Hs.352018	NM_000593	TAP1	Transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)
G10	Hs.502	NM_000544	TAP2	Transporter 2, ATP-binding cassette, sub-family B (MDR/TAP)
G11	Hs.519320	NM_003374	VDAC1	Voltage-dependent anion channel 1
G12	Hs.355927	NM_003375	VDAC2	Voltage-dependent anion channel 2
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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