RT² Profiler PCR Array (Rotor-Gene® Format)

Human GPCR Signaling PathwayFinder

Cat. no. 330231 PAHS-071ZR

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 G-Protein-Coupled Receptor Signaling PathwayFinder RT² Profiler PCR Array profiles the expression of 84 genes representative of and involved in GPCR-mediated signal transduction pathways. G-protein Coupled Receptors (GPCRs) that are represented on this array include bioactive lipid receptors, metabotropic glutamate receptors (mGluRs), GABA-B-like receptors, rhodopsin-like receptors, and secretin-like receptors. Members of the intricate network of intracellular signaling pathways involved in GPCR-mediated signal transduction are also represented on this array including the cAMP / PKA Pathway, Calcium / PKC Pathway, Calcium / NFAT Pathway, PLC Pathway, Protein Tyrosine Kinase Pathway, PKC / MEK Pathway, p43 / p44MAP Pathway, p38 MAP Pathway, PI-3 Kinase Pathway, NO-cGMP Pathway, Rho Pathway, NFκB Pathway and Jak / Stat Pathway. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to GPCR-mediated signaling 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.655144	NM_183357	ADCY5	Adenylate cyclase 5
A02	Hs.197029	NM_000675	ADORA2A	Adenosine A2a receptor
A03	Hs.99913	NM_000684	ADRB1	Adrenergic, beta-1-, receptor
A04	Hs.591251	NM_000024	ADRB2	Adrenergic, beta-2-, receptor, surface
A05	Hs.19383	NM_000029	AGT	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A06	Hs.728754	NM_031850	AGTR1	Angiotensin II receptor, type 1
A07	Hs.405348	NM_000686	AGTR2	Angiotensin II receptor, type 2
A08	Hs.464438	NM_020350	AGTRAP	Angiotensin II receptor-associated protein
A09	Hs.525622	NM_005163	AKT1	V-akt murine thymoma viral oncogene homolog 1
A10	Hs.503284	NM_004041	ARRB1	Arrestin, beta 1
A11	Hs.435811	NM_004313	ARRB2	Arrestin, beta 2
A12	Hs.194654	NM_001702	BAI1	Brain-specific angiogenesis inhibitor 1
B01	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
B02	Hs.516966	NM_138578	BCL2L1	BCL2-like 1
B03	Hs.489127	NM_001742	CALCR	CALCITONIN RECEPTOR
B04	Hs.470882	NM_005795	CALCRL	Calcitonin receptor-like
B05	Hs.435615	NM_000388	CASR	Calcium-sensing receptor
B06	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
B07	Hs.75703	NM_002984	CCL4	Chemokine (C-C motif) ligand 4
B08	Hs.523852	NM_053056	CCND1	Cyclin D1
B09	Hs.244723	NM_001238	CCNE1	Cyclin E1
B10	Hs.567387	NM_057749	CCNE2	Cyclin E2
B11	Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
B12	Hs.238990	NM_004064	CDKN1B	Cyclin-dependent kinase inhibitor 1B (p27, Kip1)
C01	Hs.390736	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator
C02	Hs.172928	NM_000088	COL1A1	Collagen, type I, alpha 1
C03	Hs.417628	NM_004382	CRHR1	Corticotropin releasing hormone receptor 1
C04	Hs.729970	NM_001883	CRHR2	Corticotropin releasing hormone receptor 2
C05	Hs.591346	NM_001901	CTGF	Connective tissue growth factor
C06	Hs.260074	NM_000103	CYP19A1	Cytochrome P450, family 19, subfamily A, polypeptide 1
C07	Hs.2624	NM_000794	DRD1	Dopamine receptor D1
C08	Hs.73893	NM_000795	DRD2	Dopamine receptor D2
C09	Hs.91448	NM_007026	DUSP14	Dual specificity phosphatase 14
C10	Hs.511899	NM_001955	EDN1	Endothelin 1
C11	Hs.326035	NM_001964	EGR1	Early growth response 1
C12	Hs.181128	NM_005229	ELK1	ELK1, member of ETS oncogene family
D01	Hs.497520	NM_001973	ELK4	ELK4, ETS-domain protein (SRF accessory protein 1)
D02	Hs.284244	NM_002006	FGF2	Fibroblast growth factor 2 (basic)
D03	Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
D04	Hs.666366	NM_003857	GALR2	GALANIN RECEPTOR 2
D05	Hs.208	NM_000160	GCGR	Glucagon receptor
D06	Hs.269782	NM_002072	GNAQ	Guanine nucleotide binding protein (G protein), q polypeptide
D07	Hs.125898	NM_080425	GNAS	GNAS complex locus
D08	Hs.32945	NM_000838	GRM1	Glutamate receptor, metabotropic 1
D09	Hs.121510	NM_000839	GRM2	Glutamate receptor, metabotropic 2
D10	Hs.654847	NM_000841	GRM4	Glutamate receptor, metabotropic 4
D11	Hs.147361	NM_000842	GRM5	Glutamate receptor, metabotropic 5
D12	Hs.606393	NM_000844	GRM7	Glutamate receptor, metabotropic 7
E01	Hs.643447	NM_000201	ICAM1	Intercellular adhesion molecule 1
E02	Hs.126256	NM_000576	IL1B	Interleukin 1, beta
E03	Hs.701982	NM_000877	IL1R1	Interleukin 1 receptor, type I
E04	Hs.25333	NM_004633	IL1R2	Interleukin 1 receptor, type II
E05	Hs.89679	NM_000586	IL2	Interleukin 2
E06	Hs.714791	NM_002228	JUN	Jun proto-oncogene
E07	Hs.25292	NM_002229	JUNB	Jun B proto-oncogene
E08	Hs.468490	NM_000233	LHCGR	Luteinizing hormone/choriogonadotropin receptor
E09	Hs.126667	NM_057159	LPAR1	Lysophosphatidic acid receptor 1

Position	UniGene	GenBank	Symbol	Description
E10	Hs.122575	NM_004720	LPAR2	Lysophosphatidic acid receptor 2
E11	Hs.285354	NM_002382	MAX	MYC associated factor X
E12	Hs.297413	NM_004994	MMP9	Matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
F01	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
F02	Hs.709191	NM_000625	NOS2	Nitric oxide synthase 2, inducible
F03	Hs.372	NM_000911	OPRD1	Opioid receptor, delta 1
F04	Hs.106795	NM_000912	OPRK1	Opioid receptor, kappa 1
F05	Hs.459691	NM_002613	PDPK1	3-phosphoinositide dependent protein kinase-1
F06	Hs.32942	NM_002649	PIK3CG	Phosphoinositide-3-kinase, catalytic, gamma polypeptide
F07	Hs.531704	NM_002737	PRKCA	Protein kinase C, alpha
F08	Hs.306831	NM_000953	PTGDR	Prostaglandin D2 receptor (DP)
F09	Hs.196384	NM_000963	PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
F10	Hs.1019	NM_000316	PTH1R	Parathyroid hormone 1 receptor
F11	Hs.78944	NM_002923	RGS2	Regulator of G-protein signaling 2, 24kDa
F12	Hs.247565	NM_000539	RHO	Rhodopsin
G01	Hs.154210	NM_001400	S1PR1	Sphingosine-1-phosphate receptor 1
G02	Hs.655405	NM_004230	S1PR2	Sphingosine-1-phosphate receptor 2
G03	Hs.585118	NM_005226	S1PR3	Sphingosine-1-phosphate receptor 3
G04	Hs.42091	NM_002980	SCTR	Secretin receptor
G05	Hs.414795	NM_000602	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G06	Hs.50640	NM_003745	SOCS1	Suppressor of cytokine signaling 1
G07	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G08	Hs.160411	NM_000369	TSHR	Thyroid stimulating hormone receptor
G09	Hs.249211	NM_021833	UCP1	Uncoupling protein 1 (mitochondrial, proton carrier)
G10	Hs.109225	NM_001078	VCAM1	Vascular cell adhesion molecule 1
G11	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
G12	Hs.492407	NM_003406	YWHAZ	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide
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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