RT² Profiler PCR Array (Rotor-Gene® Format)

Human Hedgehog Signaling Pathway

Cat. no. 330231 PAHS-078ZR

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 Hedgehog Signaling RT² Profiler PCR Array profiles the expression of 84 key genes involved in the hedgehog signaling pathway. The hedgehog family members, including Sonic hedgehog (Shh), are the most well-known morphogens involved in the developmental pattern formation of various organs, such as the nervous system, muscle, the heart and the lungs. Hedgehog signaling has also been implicated in the development of several human cancers. The array includes hedgehog family members, hedgehog receptors, and other associated proteins. The array also includes key genes involved in cell differentiation and multi-cellular organism development. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to hedgehog 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.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A02	Hs.73853	NM_001200	BMP2	Bone morphogenetic protein 2
A03	Hs.68879	NM_130851	BMP4	Bone morphogenetic protein 4
A04	Hs.296648	NM_021073	BMP5	Bone morphogenetic protein 5
A05	Hs.285671	NM_001718	BMP6	Bone morphogenetic protein 6
A06	Hs.473163	NM_001719	BMP7	Bone morphogenetic protein 7
A07	Hs.664022	NM_001720	BMP8B	Bone morphogenetic protein 8b
A08	Hs.591318	NM_033254	BOC	Boc homolog (mouse)
A09	Hs.643802	NM_033637	BTRC	Beta-transducin repeat containing
A10	Hs.38034	NM_016952	CDON	Cdon homolog (mouse)
A11	Hs.529862	NM_001892	CSNK1A1	Casein kinase 1, alpha 1
A12	Hs.474833	NM_001894	CSNK1E	Casein kinase 1, epsilon
B01	Hs.476018	NM_001904	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
B02	Hs.524382	NM_021044	DHH	Desert hedgehog
B03	Hs.528817	NM_032890	DISP1	Dispatched homolog 1 (Drosophila)
B04	Hs.355645	NM_033510	DISP2	Dispatched homolog 2 (Drosophila)
B05	Hs.390729	NM_005235	ERBB4	V-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)
B06	Hs.702217	NM_024582	FAT4	FAT tumor suppressor homolog 4 (Drosophila)
B07	Hs.484138	NM_012300	FBXW11	F-box and WD repeat domain containing 11
B08	Hs.111	NM_002010	FGF9	Fibroblast growth factor 9 (glia-activating factor)
B09	Hs.1420	NM_000142	FGFR3	Fibroblast growth factor receptor 3
B10	Hs.173464	NM_012181	FKBP8	FK506 binding protein 8, 38kDa
B11	Hs.159234	NM_004473	FOXE1	Forkhead box E1 (thyroid transcription factor 2)
B12	Hs.434914	NM_152330	FRMD6	FERM domain containing 6
C01	Hs.65029	NM_002048	GAS1	Growth arrest-specific 1
C02	Hs.632702	NM_005269	GLI1	GLI family zinc finger 1
C03	Hs.111867	NM_005270	GLI2	GLI family zinc finger 2
C04	Hs.21509	NM_000168	GLI3	GLI family zinc finger 3
C05	Hs.40098	NM_013372	GREM1	Gremlin 1
C06	Hs.445733	NM_002093	GSK3B	Glycogen synthase kinase 3 beta
C07	Hs.58650	NM_018194	HHAT	Hedgehog acyltransferase
C08	Hs.507991	NM_022475	HHIP	Hedgehog interacting protein
C09	Hs.444332	NM_016004	IFT52	Intraflagellar transport 52 homolog (Chlamydomonas)
C10	Hs.654504	NM_002181	IHH	Indian hedgehog
C11	Hs.592112	NM_001002914	KCTD11	Potassium channel tetramerisation domain containing 11
C12	Hs.716697	NM_004690	LATS1	LATS, large tumor suppressor, homolog 1 (Drosophila)
D01	Hs.78960	NM_014572	LATS2	LATS, large tumor suppressor, homolog 2 (Drosophila)
D02	Hs.657729	NM_004525	LRP2	Low density lipoprotein receptor-related protein 2
D03	Hs.431850	NM_002745	MAPK1	Mitogen-activated protein kinase 1
D04	Hs.730274	NM_173468	MOBKL1A	MOB1, Mps One Binder kinase activator-like 1A (yeast)
D05	Hs.700429	NM_014751	MTSS1	Metastasis suppressor 1
D06	Hs.187898	NM_000268	NF2	Neurofibromin 2 (merlin)
D07	Hs.464779	NM_000271	NPC1	Niemann-Pick disease, type C1
D08	Hs.654609	NM_003744	NUMB	Numb homolog (Drosophila)
D09	Hs.288655	NM_021728	OTX2	Orthodenticle homeobox 2
D10	Hs.631630	NM_002730	PRKACA	Protein kinase, cAMP-dependent, catalytic, alpha
D11	Hs.487325	NM_182948	PRKACB	Protein kinase, cAMP-dependent, catalytic, beta
D12	Hs.494538	NM_000264	PTCH1	Patched 1
E01	Hs.591497	NM_003738	PTCH2	Patched 2
E02	Hs.319503	NM_173495	PTCHD1	Patched domain containing 1
E03	Hs.202355	NM_020780	PTCHD2	Patched domain containing 2
E04	Hs.631832	NM_001034842	PTCHD3	Patched domain containing 3
E05	Hs.555016	NM_183227	RAB23	RAB23, member RAS oncogene family
E06	Hs.535845	NM_004348	RUNX2	Runt-related transcription factor 2
E07	Hs.713546	NM_003012	SFRP1	Secreted frizzled-related protein 1
E08	Hs.164537	NM_000193	SHH	Sonic hedgehog
E09	Hs.437846	NM_005631	SMO	Smoothened, frizzled family receptor

Position	UniGene	GenBank	Symbol	Description
E10	Hs.492333	NM_006281	STK3	Serine/threonine kinase 3
E11	Hs.471404	NM_015690	STK36	Serine/threonine kinase 36
E12	Hs.404089	NM_016169	SUFU	Suppressor of fused homolog (Drosophila)
F01	Hs.654481	NM_000546	TP53	Tumor protein p53
F02	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
F03	Hs.284122	NM_007191	WIF1	WNT inhibitory factor 1
F04	Hs.248164	NM_005430	WNT1	Wingless-type MMTV integration site family, member 1
F05	Hs.121540	NM_025216	WNT10A	Wingless-type MMTV integration site family, member 10A
F06	Hs.91985	NM_003394	WNT10B	Wingless-type MMTV integration site family, member 10B
F07	Hs.108219	NM_004626	WNT11	Wingless-type MMTV integration site family, member 11
F08	Hs.272375	NM_057168	WNT16	Wingless-type MMTV integration site family, member 16
F09	Hs.567356	NM_003391	WNT2	Wingless-type MMTV integration site family member 2
F10	Hs.258575	NM_004185	WNT2B	Wingless-type MMTV integration site family, member 2B
F11	Hs.445884	NM_030753	WNT3	Wingless-type MMTV integration site family, member 3
F12	Hs.336930	NM_033131	WNT3A	Wingless-type MMTV integration site family, member 3A
G01	Hs.25766	NM_030761	WNT4	Wingless-type MMTV integration site family, member 4
G02	Hs.696364	NM_003392	WNT5A	Wingless-type MMTV integration site family, member 5A
G03	Hs.306051	NM_032642	WNT5B	Wingless-type MMTV integration site family, member 5B
G04	Hs.29764	NM_006522	WNT6	Wingless-type MMTV integration site family, member 6
G05	Hs.72290	NM_004625	WNT7A	Wingless-type MMTV integration site family, member 7A
G06	Hs.512714	NM_058238	WNT7B	Wingless-type MMTV integration site family, member 7B
G07	Hs.591274	NM_058244	WNT8A	Wingless-type MMTV integration site family, member 8A
G08	Hs.421281	NM_003393	WNT8B	Wingless-type MMTV integration site family, member 8B
G09	Hs.149504	NM_003395	WNT9A	Wingless-type MMTV integration site family, member 9A
G10	Hs.326420	NM_003396	WNT9B	Wingless-type MMTV integration site family, member 9B
G11	Hs.598590	NM_003412	ZIC1	Zic family member 1
G12	Hs.653700	NM_007129	ZIC2	Zic family member 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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