RT² Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

Human WNT Signaling Pathway

Cat. no. 330231 PAHS-043ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® Mastercycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara TP-800
RT² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT² Profiler PCR Array, Format H	Fluidigm® BioMark™

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Description

The Human WNT Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes related to WNT-mediated signal transduction. The WNT family of secreted growth factors regulates the developmental processes of cell fate and polarity, as well as general cell maintenance processes such as homeostasis and cell cycle regulation. There are 19 WNT ligands in humans, which bind to the Frizzled (FZD) family of receptors and the co-receptors LRP5 and LRP6. WNT signaling comprises three pathways: the canonical pathway and two non-canonical pathways, planar cell polarity (PCP) and a calcium ion-dependent pathway. The well-studied canonical WNT pathway signals through ß-catenin and regulates the cell cycle, cell growth, and proliferation. The PCP pathway regulates cytoskeletal dynamics and cell motility, and the WNT/calcium pathway promotes NFAT transcription, both independently of ß-catenin signaling. This array contains WNT signaling ligands and receptors as well as other downstream signaling molecules for all three pathways. In addition, regulators of WNT signaling are included as well as downstream target genes. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to WNT-mediated signal transduction with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.

Shipping and storage

RT² Profiler PCR Arrays in formats A, C, D, E, F, and G are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products. RT² Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

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 (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT² Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	AES	APC	AXIN1	AXIN2	BCL9	BTRC	CCND1	CCND2	CSNK1A1	CSNK2A1	CTBP1	CTNNB1
B	CTNNBIP1	CXXC4	DAAM1	DAB2	DIXDC1	DKK1	DKK3	DVL1	DVL2	EP300	FBXW11	FBXW4
C	FGF4	FOSL1	FOXN1	FRAT1	FRZB	FZD1	FZD2	FZD3	FZD4	FZD5	FZD6	FZD7
D	FZD8	FZD9	GSK3A	GSK3B	JUN	KREMEN1	LEF1	LRP5	LRP6	MAPK8	MMP7	MYC
E	NFATC1	NKD1	NLK	PITX2	PORCN	PPARD	PRICKLE1	PYGO1	RHOA	RHOU	RUVBL1	SFRP1
F	SFRP4	SOX17	TCF7	TCF7L1	TLE1	VANGL2	WIF1	WISP1	WNT1	WNT10A	WNT11	WNT16
G	WNT2	WNT2B	WNT3	WNT3A	WNT4	WNT5A	WNT5B	WNT6	WNT7A	WNT7B	WNT8A	WNT9A
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.515053	NM_001130	AES	Amino-terminal enhancer of split
A02	Hs.158932	NM_000038	APC	Adenomatous polyposis coli
A03	Hs.592082	NM_003502	AXIN1	Axin 1
A04	Hs.156527	NM_004655	AXIN2	Axin 2
A05	Hs.415209	NM_004326	BCL9	B-cell CLL/lymphoma 9
A06	Hs.643802	NM_033637	BTRC	Beta-transducin repeat containing
A07	Hs.523852	NM_053056	CCND1	Cyclin D1
A08	Hs.376071	NM_001759	CCND2	Cyclin D2
A09	Hs.529862	NM_001892	CSNK1A1	Casein kinase 1, alpha 1
A10	Hs.644056	NM_001895	CSNK2A1	Casein kinase 2, alpha 1 polypeptide
A11	Hs.208597	NM_001328	CTBP1	C-terminal binding protein 1
A12	Hs.476018	NM_001904	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
B01	Hs.463759	NM_020248	CTNNBIP1	Catenin, beta interacting protein 1
B02	Hs.12248	NM_025212	CXXC4	CXXC finger protein 4
B03	Hs.654934	NM_014992	DAAM1	Dishevelled associated activator of morphogenesis 1
B04	Hs.481980	NM_001343	DAB2	Disabled homolog 2, mitogen-responsive phosphoprotein (Drosophila)
B05	Hs.655626	NM_033425	DIXDC1	DIX domain containing 1
B06	Hs.40499	NM_012242	DKK1	Dickkopf homolog 1 (Xenopus laevis)
B07	Hs.292156	NM_015881	DKK3	Dickkopf homolog 3 (Xenopus laevis)
B08	Hs.74375	NM_004421	DVL1	Dishevelled, dsh homolog 1 (Drosophila)
B09	Hs.118640	NM_004422	DVL2	Dishevelled, dsh homolog 2 (Drosophila)
B10	Hs.517517	NM_001429	EP300	E1A binding protein p300
B11	Hs.484138	NM_012300	FBXW11	F-box and WD repeat domain containing 11
B12	Hs.500822	NM_022039	FBXW4	F-box and WD repeat domain containing 4
C01	Hs.1755	NM_002007	FGF4	Fibroblast growth factor 4
C02	Hs.283565	NM_005438	FOSL1	FOS-like antigen 1
C03	Hs.663679	NM_003593	FOXN1	Forkhead box N1
C04	Hs.126057	NM_005479	FRAT1	Frequently rearranged in advanced T-cell lymphomas
C05	Hs.128453	NM_001463	FRZB	Frizzled-related protein
C06	Hs.94234	NM_003505	FZD1	Frizzled family receptor 1
C07	Hs.142912	NM_001466	FZD2	Frizzled family receptor 2
C08	Hs.40735	NM_017412	FZD3	Frizzled family receptor 3
C09	Hs.19545	NM_012193	FZD4	Frizzled family receptor 4
C10	Hs.17631	NM_003468	FZD5	Frizzled family receptor 5
C11	Hs.591863	NM_003506	FZD6	Frizzled family receptor 6
C12	Hs.173859	NM_003507	FZD7	Frizzled family receptor 7
D01	Hs.302634	NM_031866	FZD8	Frizzled family receptor 8
D02	Hs.647029	NM_003508	FZD9	Frizzled family receptor 9
D03	Hs.466828	NM_019884	GSK3A	Glycogen synthase kinase 3 alpha
D04	Hs.445733	NM_002093	GSK3B	Glycogen synthase kinase 3 beta
D05	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D06	Hs.229335	NM_001039570	KREMEN1	Kringle containing transmembrane protein 1
D07	Hs.555947	NM_016269	LEF1	Lymphoid enhancer-binding factor 1
D08	Hs.6347	NM_002335	LRP5	Low density lipoprotein receptor-related protein 5
D09	Hs.584775	NM_002336	LRP6	Low density lipoprotein receptor-related protein 6

Position	UniGene	GenBank	Symbol	Description
D10	Hs.138211	NM_002750	MAPK8	Mitogen-activated protein kinase 8
D11	Hs.2256	NM_002423	MMP7	Matrix metallopeptidase 7 (matrilysin, uterine)
D12	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
E01	Hs.534074	NM_172390	NFATC1	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
E02	Hs.592059	NM_033119	NKD1	Naked cuticle homolog 1 (Drosophila)
E03	Hs.208759	NM_016231	NLK	Nemo-like kinase
E04	Hs.643588	NM_000325	PITX2	Paired-like homeodomain 2
E05	Hs.386453	NM_022825	PORCN	Porcupine homolog (Drosophila)
E06	Hs.696032	NM_006238	PPARD	Peroxisome proliferator-activated receptor delta
E07	Hs.524348	NM_153026	PRICKLE1	Prickle homolog 1 (Drosophila)
E08	Hs.256587	NM_015617	PYGO1	Pygopus homolog 1 (Drosophila)
E09	Hs.247077	NM_001664	RHOA	Ras homolog gene family, member A
E10	Hs.647774	NM_021205	RHOU	Ras homolog gene family, member U
E11	Hs.272822	NM_003707	RUVBL1	RuvB-like 1 (E. coli)
E12	Hs.713546	NM_003012	SFRP1	Secreted frizzled-related protein 1
F01	Hs.658169	NM_003014	SFRP4	Secreted frizzled-related protein 4
F02	Hs.98367	NM_022454	SOX17	SRY (sex determining region Y)-box 17
F03	Hs.573153	NM_003202	TCF7	Transcription factor 7 (T-cell specific, HMG-box)
F04	Hs.516297	NM_031283	TCF7L1	Transcription factor 7-like 1 (T-cell specific, HMG-box)
F05	Hs.197320	NM_005077	TLE1	Transducin-like enhancer of split 1 (E(sp1) homolog, Drosophila)
F06	Hs.99477	NM_020335	VANGL2	Vang-like 2 (van gogh, Drosophila)
F07	Hs.284122	NM_007191	WIF1	WNT inhibitory factor 1
F08	Hs.492974	NM_003882	WISP1	WNT1 inducible signaling pathway protein 1
F09	Hs.248164	NM_005430	WNT1	Wingless-type MMTV integration site family, member 1
F10	Hs.121540	NM_025216	WNT10A	Wingless-type MMTV integration site family, member 10A
F11	Hs.108219	NM_004626	WNT11	Wingless-type MMTV integration site family, member 11
F12	Hs.272375	NM_057168	WNT16	Wingless-type MMTV integration site family, member 16
G01	Hs.567356	NM_003391	WNT2	Wingless-type MMTV integration site family member 2
G02	Hs.258575	NM_004185	WNT2B	Wingless-type MMTV integration site family, member 2B
G03	Hs.445884	NM_030753	WNT3	Wingless-type MMTV integration site family, member 3
G04	Hs.336930	NM_033131	WNT3A	Wingless-type MMTV integration site family, member 3A
G05	Hs.25766	NM_030761	WNT4	Wingless-type MMTV integration site family, member 4
G06	Hs.696364	NM_003392	WNT5A	Wingless-type MMTV integration site family, member 5A
G07	Hs.306051	NM_032642	WNT5B	Wingless-type MMTV integration site family, member 5B
G08	Hs.29764	NM_006522	WNT6	Wingless-type MMTV integration site family, member 6
G09	Hs.72290	NM_004625	WNT7A	Wingless-type MMTV integration site family, member 7A
G10	Hs.512714	NM_058238	WNT7B	Wingless-type MMTV integration site family, member 7B
G11	Hs.591274	NM_058244	WNT8A	Wingless-type MMTV integration site family, member 8A
G12	Hs.149504	NM_003395	WNT9A	Wingless-type MMTV integration site family, member 9A
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 qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384, DNA Engine Opticon 2; Bio-Rad/MJ Research Chromo4; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT² SYBR Green ROX™ qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and FAST], 7700, 7900HT 96-well block [Standard and FAST] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000; Takara TP-800	330520
RT² SYBR Green Fluor qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510

* 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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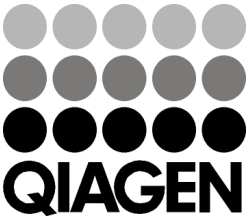

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