

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

Mouse WNT Signaling Pathway

Cat. no. 330231 PAMM-043ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² 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
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT ² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

Description

The Mouse 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 Mouses, 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 β -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 β -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	Daam1	Dab2	Dixdc1	Dkk1	Dkk3	Dvl1	Dvl2	Ep300	Fbxw11	Fbxw4	Fgf4
C	Fosl1	Foxn1	Frat1	Frzb	Fzd1	Fzd2	Fzd3	Fzd4	Fzd5	Fzd6	Fzd7	Fzd8
D	Fzd9	Gsk3b	Jun	Kremen1	Lef1	Lrp5	Lrp6	Mapk8	Mmp7	Myc	Nfatc1	Nkd1
E	Nlk	Pitx2	Porcn	Ppard	Prickle1	Pygo1	Rhoa	Rhou	Ruvbl1	Sfrp1	Sfrp2	Sfrp4
F	Sax17	Tcf7	Tcf7l1	Tle1	Vangl2	Wif1	Wisp1	Wnt1	Wnt10a	Wnt11	Wnt16	Wnt2
G	Wnt2b	Wnt3	Wnt3a	Wnt4	Wnt5a	Wnt5b	Wnt6	Wnt7a	Wnt7b	Wnt8a	Wnt8b	Wnt9a
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.180013	NM_010347	Aes	Amino-terminal enhancer of split
A02	Mm.384171	NM_007462	Apc	Adenomatosis polyposis coli
A03	Mm.23684	NM_009733	Axin1	Axin 1
A04	Mm.71710	NM_015732	Axin2	Axin2
A05	Mm.226175	NM_029933	Bcl9	B-cell CLL/lymphoma 9
A06	Mm.119717	NM_009771	Btrc	Beta-transducin repeat containing protein
A07	Mm.273049	NM_007631	Ccnd1	Cyclin D1
A08	Mm.333406	NM_009829	Ccnd2	Cyclin D2
A09	Mm.26908	NM_146087	Csnk1a1	Casein kinase 1, alpha 1
A10	Mm.23692	NM_007788	Csnk2a1	Casein kinase 2, alpha 1 polypeptide
A11	Mm.7286	NM_013502	Ctbp1	C-terminal binding protein 1
A12	Mm.291928	NM_007614	Ctnnb1	Catenin (cadherin associated protein), beta 1
B01	Mm.299735	NM_023465	Ctnnbip1	Catenin beta interacting protein 1
B02	Mm.474935	NM_172464	Daam1	Dishevelled associated activator of morphogenesis 1
B03	Mm.240830	NM_023118	Dab2	Disabled homolog 2 (Drosophila)
B04	Mm.82598	NM_178118	Dixdc1	DIX domain containing 1
B05	Mm.214717	NM_010051	Dkk1	Dickkopf homolog 1 (Xenopus laevis)
B06	Mm.55143	NM_015814	Dkk3	Dickkopf homolog 3 (Xenopus laevis)
B07	Mm.3400	NM_010091	Dvl1	Dishevelled, dsh homolog 1 (Drosophila)
B08	Mm.5114	NM_007888	Dvl2	Dishevelled 2, dsh homolog (Drosophila)
B09	Mm.258397	NM_177821	Ep300	E1A binding protein p300
B10	Mm.28017	NM_134015	Fbxw11	F-box and WD-40 domain protein 11
B11	Mm.254739	NM_013907	Fbxw4	F-box and WD-40 domain protein 4
B12	Mm.4956	NM_010202	Fgf4	Fibroblast growth factor 4
C01	Mm.6215	NM_010235	Fosl1	Fos-like antigen 1
C02	Mm.4496	NM_008238	Foxn1	Forkhead box N1
C03	Mm.4573	NM_008043	Frat1	Frequently rearranged in advanced T-cell lymphomas
C04	Mm.427436	NM_011356	Frzb	Frizzled-related protein
C05	Mm.246003	NM_021457	Fzd1	Frizzled homolog 1 (Drosophila)
C06	Mm.36416	NM_020510	Fzd2	Frizzled homolog 2 (Drosophila)
C07	Mm.214687	NM_021458	Fzd3	Frizzled homolog 3 (Drosophila)
C08	Mm.86755	NM_008055	Fzd4	Frizzled homolog 4 (Drosophila)
C09	Mm.150813	NM_022721	Fzd5	Frizzled homolog 5 (Drosophila)
C10	Mm.4769	NM_008056	Fzd6	Frizzled homolog 6 (Drosophila)
C11	Mm.297906	NM_008057	Fzd7	Frizzled homolog 7 (Drosophila)
C12	Mm.184289	NM_008058	Fzd8	Frizzled homolog 8 (Drosophila)
D01	Mm.6256	NM_010246	Fzd9	Frizzled homolog 9 (Drosophila)
D02	Mm.394930	NM_019827	Gsk3b	Glycogen synthase kinase 3 beta
D03	Mm.275071	NM_010591	Jun	Jun oncogene
D04	Mm.209989	NM_032396	Kremen1	Kringle containing transmembrane protein 1
D05	Mm.255219	NM_010703	Lef1	Lymphoid enhancer binding factor 1
D06	Mm.274581	NM_008513	Lrp5	Low density lipoprotein receptor-related protein 5
D07	Mm.321990	NM_008514	Lrp6	Low density lipoprotein receptor-related protein 6
D08	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
D09	Mm.4825	NM_010810	Mmp7	Matrix metalloproteinase 7

Position	UniGene	GenBank	Symbol	Description
D10	Mm.2444	NM_010849	Myc	Myelocytomatosis oncogene
D11	Mm.329560	NM_016791	Nfatc1	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
D12	Mm.30219	NM_027280	Nkd1	Naked cuticle 1 homolog (Drosophila)
E01	Mm.9001	NM_008702	Nlk	Nemo like kinase
E02	Mm.246804	NM_011098	Pitx2	Paired-like homeodomain transcription factor 2
E03	Mm.443425	NM_023638	Porcn	Porcupine homolog (Drosophila)
E04	Mm.328914	NM_011145	Ppard	Peroxisome proliferator activator receptor delta
E05	Mm.150314	NM_001033217	Prickle1	Prickle homolog 1 (Drosophila)
E06	Mm.273605	NM_028116	Pygo1	Pygopus 1
E07	Mm.757	NM_016802	Rhoa	Ras homolog gene family, member A
E08	Mm.168257	NM_133955	Rhou	Ras homolog gene family, member U
E09	Mm.42195	NM_019685	Ruvbl1	RuvB-like protein 1
E10	Mm.281691	NM_013834	Sfrp1	Secreted frizzled-related protein 1
E11	Mm.19155	NM_009144	Sfrp2	Secreted frizzled-related protein 2
E12	Mm.42095	NM_016687	Sfrp4	Secreted frizzled-related protein 4
F01	Mm.279103	NM_011441	Sox17	SRY-box containing gene 17
F02	Mm.31630	NM_009331	Tcf7	Transcription factor 7, T-cell specific
F03	Mm.440067	NM_009332	Tcf7l1	Transcription factor 7-like 1 (T-cell specific, HMG box)
F04	Mm.278444	NM_011599	Tle1	Transducin-like enhancer of split 1, homolog of Drosophila E(spl)
F05	Mm.36148	NM_033509	Vangl2	Vang-like 2 (van gogh, Drosophila)
F06	Mm.32831	NM_011915	Wif1	Wnt inhibitory factor 1
F07	Mm.10222	NM_018865	Wisp1	WNT1 inducible signaling pathway protein 1
F08	Mm.1123	NM_021279	Wnt1	Wingless-related MMTV integration site 1
F09	Mm.5130	NM_009518	Wnt10a	Wingless related MMTV integration site 10a
F10	Mm.22182	NM_009519	Wnt11	Wingless-related MMTV integration site 11
F11	Mm.137403	NM_053116	Wnt16	Wingless-related MMTV integration site 16
F12	Mm.33653	NM_023653	Wnt2	Wingless-related MMTV integration site 2
G01	Mm.10740	NM_009520	Wnt2b	Wingless related MMTV integration site 2b
G02	Mm.159091	NM_009521	Wnt3	Wingless-related MMTV integration site 3
G03	Mm.1367	NM_009522	Wnt3a	Wingless-related MMTV integration site 3A
G04	Mm.20355	NM_009523	Wnt4	Wingless-related MMTV integration site 4
G05	Mm.287544	NM_009524	Wnt5a	Wingless-related MMTV integration site 5A
G06	Mm.321818	NM_009525	Wnt5b	Wingless-related MMTV integration site 5B
G07	Mm.268282	NM_009526	Wnt6	Wingless-related MMTV integration site 6
G08	Mm.56964	NM_009527	Wnt7a	Wingless-related MMTV integration site 7A
G09	Mm.306946	NM_009528	Wnt7b	Wingless-related MMTV integration site 7B
G10	Mm.558	NM_009290	Wnt8a	Wingless-related MMTV integration site 8A
G11	Mm.88365	NM_011720	Wnt8b	Wingless related MMTV integration site 8b
G12	Mm.218794	NM_139298	Wnt9a	Wingless-type MMTV integration site 9A
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² 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
RT ² 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
RT ² 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.

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