RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse WNT Signaling Pathway

Cat. no. 330231 PAMM-243ZR

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 Mouse WNT Signaling Targets RT² Profiler PCR Array profiles the expression of 84 key genes responsive to WNT signal transduction. The WNT family of secreted growth factors regulates development and differentiation as well as general cell maintenance processes such as migration and cell cycle regulation. The WNT ligands bind to Frizzled (FZD) receptor family members and activate one of three WNT pathways: the canonical pathway, planar cell polarity (PCP), and a calcium ion-dependent pathway. The well-studied and better characterized canonical WNT pathway signals through ß-catenin and regulates cell cycle, cell growth, and proliferation. Dysregulation of the canonical WNT signal transduction pathway is associated with cancer and developmental diseases. Many target genes of the canonical WNT pathway have been identified using experimental techniques such as chromatin immunoprecipitation (ChIP) and gene expression studies, while similar analyses for the PCP and a calcium ion-dependent pathways have yet be performed. This array includes WNT canonical signaling pathway transcription factors and highly relevant target genes identified by multiple studies. Results obtained with this array can be used to analyze activation or inhibition of WNT signaling. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in WNT-regulated cellular processes 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	Mm.207354	NM_011076	Abcb1a	ATP-binding cassette, sub-family B (MDR/TAP), member 1A
A02	Mm.341377	NM_013464	Ahr	Aryl-hydrocarbon receptor
A03	Mm.196189	NM_020581	Angptl4	Angiopoietin-like 4
A04	Mm.232525	NM_054041	Antxr1	Anthrax toxin receptor 1
A05	Mm.71710	NM_015732	Axin2	Axin2
A06	Mm.8552	NM_009689	Birc5	Baculoviral IAP repeat-containing 5
A07	Mm.6813	NM_007554	Bmp4	Bone morphogenetic protein 4
A08	Mm.119717	NM_009771	Btrc	Beta-transducin repeat containing protein
A09	Mm.386754	NM_009785	Cacna2d3	Calcium channel, voltage-dependent, alpha2/delta subunit 3
A10	Mm.273049	NM_007631	Ccnd1	Cyclin D1
A11	Mm.333406	NM_009829	Ccnd2	Cyclin D2
A12	Mm.423621	NM_009851	Cd44	CD44 antigen
B01	Mm.35605	NM_009864	Cdh1	Cadherin 1
B02	Mm.4733	NM_009877	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
B03	Mm.80509	NM_021339	Cdon	Cell adhesion molecule-related/down-regulated by oncogenes
B04	Mm.347407	NM_007679	Cebpd	CCAAT/enhancer binding protein (C/EBP), delta
B05	Mm.390287	NM_010217	Ctgf	Connective tissue growth factor
B06	Mm.313915	NM_001081084	Cubn	Cubilin (intrinsic factor-cobalamin receptor)
B07	Mm.240830	NM_023118	Dab2	Disabled homolog 2 (Drosophila)
B08	Mm.214717	NM_010051	Dkk1	Dickkopf homolog 1 (Xenopus laevis)
B09	Mm.157069	NM_010052	Dlk1	Delta-like 1 homolog (Drosophila)
B10	Mm.483255	NM_199021	Dpp10	Dipeptidylpeptidase 10
B11	Mm.3374	NM_010110	Efnb1	Ephrin B1
B12	Mm.8534	NM_007912	Egfr	Epidermal growth factor receptor
C01	Mm.181959	NM_007913	Egr1	Early growth response 1
C02	Mm.250256	NM_015744	Enpp2	Ectonucleotide pyrophosphatase/phosphodiesterase 2
C03	Mm.290207	NM_011809	Ets2	E26 avian leukemia oncogene 2, 3' domain
C04	Mm.425526	NM_030610	Fgf20	Fibroblast growth factor 20
C05	Mm.4956	NM_010202	Fgf4	Fibroblast growth factor 4
C06	Mm.330557	NM_008008	Fgf7	Fibroblast growth factor 7
C07	Mm.8846	NM_013518	Fgf9	Fibroblast growth factor 9
C08	Mm.193099	NM_010233	Fn1	Fibronectin 1
C09	Mm.6215	NM_010235	Fosl1	Fos-like antigen 1
C10	Mm.4913	NM_008046	Fst	Follistatin
C11	Mm.297906	NM_008057	Fzd7	Frizzled homolog 7 (Drosophila)
C12	Mm.4744	NM_008109	Gdf5	Growth differentiation factor 5
D01	Mm.4679	NM_010275	Gdnf	Glial cell line derived neurotrophic factor
D02	Mm.378921	NM_010288	Gja1	Gap junction protein, alpha 1
D03	Mm.34871	NM_010496	Id2	Inhibitor of DNA binding 2
D04	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D05	Mm.3862	NM_010514	Igf2	Insulin-like growth factor 2
D06	Mm.1019	NM_031168	Il6	Interleukin 6
D07	Mm.4952	NM_010570	Irs1	Insulin receptor substrate 1
D08	Mm.22398	NM_013822	Jag1	Jagged 1
D09	Mm.30262	NM_009769	Klf5	Kruppel-like factor 5
D10	Mm.255219	NM_010703	Lef1	Lymphoid enhancer binding factor 1
D11	Mm.271854	NM_008512	Lrp1	Low density lipoprotein receptor-related protein 1
D12	Mm.86844	NM_008591	Met	Met proto-oncogene
E01	Mm.29564	NM_008610	Mmp2	Matrix metallopeptidase 2
E02	Mm.4825	NM_010810	Mmp7	Matrix metallopeptidase 7
E03	Mm.4406	NM_013599	Mmp9	Matrix metallopeptidase 9
E04	Mm.2444	NM_010849	Myc	Myelocytomatosis oncogene
E05	Mm.485537	NM_028016	Nanog	Nanog homeobox
E06	Mm.208439	NM_176930	Nrcam	Neuron-glia-CAM-related cell adhesion molecule
E07	Mm.271745	NM_008737	Nrp1	Neuropilin 1
E08	Mm.130054	NM_008745	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2
E09	Mm.221403	NM_011058	Pdgfra	Platelet derived growth factor receptor, alpha polypeptide

Position	UniGene	GenBank	Symbol	Description
E10	Mm.246804	NM_011098	Pitx2	Paired-like homeodomain transcription factor 2
E11	Mm.1359	NM_011113	Plaur	Plasminogen activator, urokinase receptor
E12	Mm.17031	NM_013633	Pou5f1	POU domain, class 5, transcription factor 1
F01	Mm.348326	NM_080555	Ppap2b	Phosphatidic acid phosphatase type 2B
F02	Mm.328914	NM_011145	Ppard	Peroxisome proliferator activator receptor delta
F03	Mm.228798	NM_008957	Ptch1	Patched homolog 1
F04	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F05	Mm.391013	NM_009820	Runx2	Runt related transcription factor 2
F06	Mm.19155	NM_009144	Sfrp2	Secreted frizzled-related protein 2
F07	Mm.4645	NM_009189	Six1	Sine oculis-related homeobox 1 homolog (Drosophila)
F08	Mm.29279	NM_176996	Smo	Smoothened homolog (Drosophila)
F09	Mm.65396	NM_011443	Sox2	SRY-box containing gene 2
F10	Mm.286407	NM_011448	Sox9	SRY-box containing gene 9
F11	Mm.913	NM_009309	T	Brachyury
F12	Mm.4269	NM_013685	Tcf4	Transcription factor 4
G01	Mm.31630	NM_009331	Tcf7	Transcription factor 7, T-cell specific
G02	Mm.440067	NM_009332	Tcf7l1	Transcription factor 7-like 1 (T-cell specific, HMG box)
G03	Mm.139815	NM_009333	Tcf7l2	Transcription factor 7-like 2, T-cell specific, HMG-box
G04	Mm.3992	NM_009368	Tgfb3	Transforming growth factor, beta 3
G05	Mm.278444	NM_011599	Tle1	Transducin-like enhancer of split 1, homolog of Drosophila E(spl)
G06	Mm.3280	NM_011658	Twist1	Twist homolog 1 (Drosophila)
G07	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G08	Mm.10222	NM_018865	Wisp1	WNT1 inducible signaling pathway protein 1
G09	Mm.13828	NM_016873	Wisp2	WNT1 inducible signaling pathway protein 2
G10	Mm.1367	NM_009522	Wnt3a	Wingless-related MMTV integration site 3A
G11	Mm.287544	NM_009524	Wnt5a	Wingless-related MMTV integration site 5A
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.
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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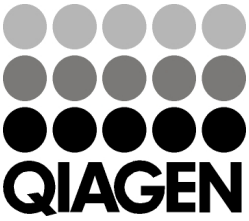

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