RT² Profiler PCR Array (Rotor-Gene® Format)

Fruit Fly WNT Signaling Targets

Cat. no. 330231 PADM-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 Fruit Fly WNT Signaling Targets RT² Profiler PCR Array profiles the expression of 84 key genes responsive to WNT signal transduction. In mammalian model systems, 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 specific 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	Dm.1842	NM_079998	arr	Arrow
A02	Dm.5307	NM_169213	ato	Atonal
A03	Dm.7154	NM_170457	Axn	Axin
A04	Dm.2390	NM_169874	bnl	Branchless
A05	Dm.13012	NM_131957	Bteb2	CG2932 gene product from transcript CG2932-RA
A06	Dm.27127	NM_079307	byn	Brachyenteron
A07	Dm.2073	NM_057606	cad	Caudal
A08	Dm.33830	NM_167523	CanA-14F	Calcineurin A at 14F
A09	Dm.1988	NM_058060	Cdlc2	Cytoplasmic dynein light chain 2
A10	Dm.13492	NM_135207	CG11319	CG11319 gene product from transcript CG11319-RA
A11	Dm.5825	NM_170304	CG31075	CG31075 gene product from transcript CG31075-RA
A12	Dm.21123	NM_170171	CG31357	CG31357 gene product from transcript CG31357-RA
B01	Dm.21154	NM_167193	CG32702	CG32702 gene product from transcript CG32702-RB
B02	Dm.1173	NM_141963	CG6234	CG6234 gene product from transcript CG6234-RA
B03	Dm.29962	NM_140529	CG7650	CG7650 gene product from transcript CG7650-RA
B04	Dm.3573	NM_142030	CG9796	CG9796 gene product from transcript CG9796-RA
B05	Dm.5892	NM_080336	ctp	Cut up
B06	Dm.2549	NM_079306	CycA	Cyclin A
B07	Dm.2096	NM_078631	CycD	Cyclin D
B08	Dm.2851	NM_079395	Dab	Disabled
B09	Dm.2277	NM_079259	dally	Division abnormally delayed
B10	Dm.1578	NM_142351	Det	Deterin
B11	Dm.3724	NM_141935	Dip-C	Dipeptidase C
B12	Dm.7687	NM_057916	Dl_Delta	Delta
C01	Dm.4239	NM_080323	dm	Diminutive
C02	Dm.4767	NM_057963	dpp	Decapentaplegic
C03	Dm.20748	NM_057410	Egfr	Epidermal growth factor receptor
C04	Dm.22056	NM_078976	en	Engrailed
C05	Dm.4764	NM_057252	esg	Escargot
C06	Dm.19933	NM_144119	Fs	Follistatin
C07	Dm.1456	NM_080073	fz	Frizzled
C08	Dm.2524	NM_001104173	fz2	Frizzled 2
C09	Dm.1697	NM_001103389	fz3	Frizzled 3
C10	Dm.92	NM_078513	fz4	Frizzled 4
C11	Dm.2554	NM_001014577	h	Hairy
C12	Dm.631	NM_137153	HPS1	Hermansky-Pudlak Syndrome 1 ortholog
D01	Dm.11441	NM_135241	iHog	Interference Hedgehog
D02	Dm.3574	NM_057238	Jra	Jun-related antigen
D03	Dm.2786	NM_079143	Kr	Kruppel
D04	Dm.19876	NM_176104	LRP1	LDL receptor protein 1
D05	Dm.3336	NM_057630	lwr	Lesswright
D06	Dm.23247	NM_079016	Mdr50	Multi drug resistance 50
D07	Dm.7048	NM_079600	mfas	Midline fasciclin
D08	Dm.2975	NM_079323	mirr	Mirror
D09	Dm.19999	NM_079128	Mmp1	Matrix metalloproteinase 1
D10	Dm.11246	NM_206066	Mmp2	Matrix metalloproteinase 2
D11	Dm.27072	NM_001169885	mp	Multiplexin
D12	Dm.23847	NM_001201767	Msp-300	Muscle-specific protein 300
E01	Dm.19217	NM_080340	nAcRalpha-7 E	Nicotinic Acetylcholine Receptor alpha 7E
E02	Dm.3990	NM_079243	nmo	Nemo
E03	Dm.12824	NM_168642	Notum	CG13076 gene product from transcript CG13076-RB
E04	Dm.3700	NM_078535	Nrg	Neuroglian
E05	Dm.3727	NM_079956	Optix	CG18455 gene product from transcript CG18455-RA
E06	Dm.36729	NM_001038742	ovo	CG6824 gene product from transcript CG6824-RE
E07	Dm.17803	NM_001014685	pan	Pangolin
E08	Dm.387	NM_057330	pim	Pimples

Position	UniGene	GenBank	Symbol	Description
E09	Dm.2370	NM_079737	pnt	Pointed
E10	Dm.33340	NM_078649	Pp2B-14D	Protein phosphatase 2B at 14D
E11	Dm.2630	NM_078937	ptc	Patched
E12	Dm.7573	NM_170531	Ptx1	CG1447 gene product from transcript CG1447-RC
F01	Dm.4697	NM_078683	Pvf1	PDGF- and VEGF-related factor 1
F02	Dm.4700	NM_078775	Pvf2	PDGF- and VEGF-related factor 2
F03	Dm.8030	NM_079167	Pxn	Peroxidasin
F04	Dm.482	NM_057696	Ret	Ret oncogene
F05	Dm.6481	NM_057354	rk	Rickets
F06	Dm.2688	NM_078700	run	Runt
F07	Dm.4731	NM_057374	shg	Shotgun
F08	Dm.2387	NM_079706	slmb	Supernumerary limbs
F09	Dm.244	NM_078719	smo	Smoothened
F10	Dm.4727	NM_057385	so	Sine oculis
F11	Dm.1851	NM_079671	sr	Stripe
F12	Dm.3249	NM_057400	ss	Spineless
G01	Dm.6691	NM_137058	stj	Straightjacket
G02	Dm.2561	NM_079178	sty	Sprouty
G03	Dm.2728	NM_078896	sxc	Super sex combs
G04	Dm.4797	NM_057685	Tig	Tiggrin
G05	Dm.4717	NM_057426	tup	Tailup
G06	Dm.5605	NM_001038878	twi	Twist
G07	Dm.33521	NM_170128	twin	CG31137 gene product from transcript CG31137-RB
G08	Dm.21668	NM_080500	Ubx	Ultrabithorax
G09	Dm.6203	NM_144370	Ugt36Bc	CG17932 gene product from transcript CG17932-RB
G10	Dm.12420	NM_137850	Ugt58Fa	CG4414 gene product from transcript CG4414-RA
G11	Dm.6628	NM_078778	wg	Wingless
G12	Dm.3046	NM_057253	wor	Worniu
H01	Dm.7040	NM_078901	Act42A	Actin 42A
H02	Dm.23224	NM_001038847	Gapdh1	Glyceraldehyde 3 phosphate dehydrogenase 1
H03	Dm.7621	NM_079843	RpL32	Ribosomal protein L32
H04	Dm.4591	NM_057862	SdhA	Succinate dehydrogenase A
H05	Dm.4490	NM_079081	Tbp	TATA binding protein
H06	N/A fly	SA_00146	DGDC	Fly 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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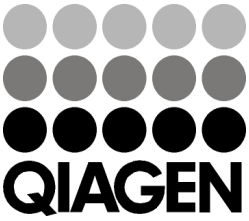

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