

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

Rat Notch Signaling Pathway

Cat. no. 330231 PARN-059ZA

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 Rat Notch Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes involved in Notch signaling. This array contains the Notch pathway's binding and receptor processing genes. The putative Notch target genes are also represented. These include genes related to apoptosis, the cell cycle, neurogenesis, and the regulation of transcription as well as genes involved in cell regulation, proliferation, and differentiation. Genes from other signaling pathways that cross-talk with the Notch signaling pathway are represented including members of the Sonic Hedgehog and Wnt Receptor Signaling Pathways. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to Notch signaling 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	Adam10	Adam17	Aes	Aph1a	Axin1	Cbl	Ccnd1	Ccne1	Cd44	Cdkn1a	Cflar	Chuk
B	Ctnnb1	Dll1	Dll3	Dll4	Dvl1	Ep300	ErbB2	Figf	Fos	Fos1	Fzd2	Fzd3
C	Fzd4	Fzd5	Fzd6	Fzd7	Gbp2	Gli1	Gsk3b	Hdac1	Hes1	Hes5	Hey1	Hey2
D	Hey1	Hoxb4	hr	Id1	Ifng	Il17b	Il2ra	Il6st	Jag1	Jag2	Krt1	Lfng
E	Lmo2	Lrp5	Mam1	Mfng	Mmp7	Ncor2	Ncatn	Neur1	Nfkb1	Nfkb2	Notch1	Notch2
F	Notch3	Notch4	Nr4a2	Numb	Pcaf	Pofut1	Pparg	Psen1	Psen2	Psenen	Picra	Rbpjl
G	Rfng	Runx1	Sell1	Shh	Smo	Slat6	Sufu	Supt6h	Tle1	Wisp1	Wnt11	Zic2
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.42924	XM_217197	Adam10	ADAM metallopeptidase domain 10
A02	Rn.144585	NM_020306	Adam17	ADAM metallopeptidase domain 17
A03	Rn.11495	NM_019220	Aes	Amino-terminal enhancer of split
A04	Rn.22786	NM_001014255	Aph1a	Anterior pharynx defective 1 homolog A (C. elegans)
A05	Rn.31781	NM_024405	Axin1	Axin 1
A06	Rn.35589	XM_576396	Cbl	Cas-Br-M (murine) ecotropic retroviral transforming sequence
A07	Rn.22279	NM_171992	Ccnd1	Cyclin D1
A08	Rn.15455	NM_001100821	Ccne1	Cyclin E1
A09	Rn.1120	NM_012924	Cd44	Cd44 molecule
A10	Rn.10089	NM_080782	Cdkn1a	Cyclin-dependent kinase inhibitor 1A
A11	Rn.204752	NM_057138	Cflar	CASP8 and FADD-like apoptosis regulator
A12	Rn.23019	NM_001107588	Chuk	Conserved helix-loop-helix ubiquitous kinase
B01	Rn.112601	NM_053357	Ctnnb1	Catenin (cadherin associated protein), beta 1
B02	Rn.10628	NM_032063	Dll1	Delta-like 1 (Drosophila)
B03	Rn.23105	NM_053666	Dll3	Delta-like 3 (Drosophila)
B04	Rn.147393	NM_001107760	Dll4	Delta-like 4 (Drosophila)
B05	Rn.144610	NM_031820	Dvl1	Dishevelled, dsh homolog 1 (Drosophila)
B06	Rn.12447	XM_576312	Ep300	E1A binding protein p300
B07	Rn.93966	NM_017003	ErbB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
B08	Rn.10796	NM_031761	Figf	C-fos induced growth factor
B09	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
B10	Rn.11306	NM_012953	Fos1	Fos-like antigen 1
B11	Rn.92324	NM_172035	Fzd2	Frizzled homolog 2 (Drosophila)
B12	Rn.178695	NM_153474	Fzd3	Frizzled homolog 3 (Drosophila)
C01	Rn.48736	NM_022623	Fzd4	Frizzled homolog 4 (Drosophila)
C02	Rn.24792	NM_173838	Fzd5	Frizzled homolog 5 (Drosophila)
C03	Rn.2740	NM_001130536	Fzd6	Frizzled homolog 6 (Drosophila)
C04	Rn.1806	XM_237191	Fzd7	Frizzled homolog 7 (Drosophila)
C05	Rn.25736	NM_133624	Gbp2	Guanylate binding protein 2
C06	Rn.219157	XM_345832	Gli1	GLI family zinc finger 1
C07	Rn.10426	NM_032080	Gsk3b	Glycogen synthase kinase 3 beta
C08	Rn.1863	NM_001025409	Hdac1	Histone deacetylase 1
C09	Rn.19727	NM_024360	Hes1	Hairy and enhancer of split 1 (Drosophila)
C10	Rn.22422	NM_024383	Hes5	Hairy and enhancer of split 5 (Drosophila)
C11	Rn.98202	XM_342216	Hey1	Hairy/enhancer-of-split related with YRPW motif 1
C12	Rn.58672	NM_130417	Hey2	Hairy/enhancer-of-split related with YRPW motif 2
D01	Rn.22252	NM_001107977	Heyl	Hairy/enhancer-of-split related with YRPW motif-like
D02	Rn.209614	NM_001100787	Hoxb4	Homeo box B4
D03	Rn.41543	NM_024364	hr	Hairless
D04	Rn.2113	NM_012797	Id1	Inhibitor of DNA binding 1
D05	Rn.10795	NM_138880	Ifng	Interferon gamma
D06	Rn.50003	NM_053789	Il17b	Interleukin 17B
D07	Rn.9872	NM_013163	Il2ra	Interleukin 2 receptor, alpha
D08	Rn.12138	NM_001008725	Il6st	Interleukin 6 signal transducer

Position	UniGene	GenBank	Symbol	Description
D09	Rn.88804	NM_019147	Jag1	Jagged 1
D10	Rn.22459	XM_343119	Jag2	Jagged 2
D11	Rn.31789	NM_001008802	Krt1	Keratin 1
D12	Rn.127809	NM_133393	Lfng	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
E01	Rn.155591	NM_001037358	Lmo2	LIM domain only 2
E02	Rn.12698	NM_001106321	Lrp5	Low density lipoprotein receptor-related protein 5
E03	Rn.2394	NM_001106997	Maml1	Mastermind like 1 (Drosophila)
E04	Rn.102109	NM_199110	Mfng	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
E05	Rn.10282	NM_012864	Mmp7	Matrix metalloproteinase 7
E06	Rn.113362	NM_001108334	Ncor2	Nuclear receptor co-repressor 2
E07	Rn.51975	NM_174864	Ncstn	Nicastrin
E08	Rn.218237	NM_001107605	Neurl	Neuralized homolog (Drosophila)
E09	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E10	Rn.204814	NM_001008349	Nfkb2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, p49/p100
E11	Rn.25046	NM_001105721	Notch1	Notch homolog 1, translocation-associated (Drosophila)
E12	Rn.65930	NM_024358	Notch2	Notch homolog 2 (Drosophila)
F01	Rn.53876	NM_020087	Notch3	Notch homolog 3 (Drosophila)
F02	Rn.12967	NM_001002827	Notch4	Notch homolog 4 (Drosophila)
F03	Rn.88129	NM_019328	Nr4a2	Nuclear receptor subfamily 4, group A, member 2
F04	Rn.102078	NM_133287	Numb	Numb homolog (Drosophila)
F05	Rn.4126	NM_001024252	Pcaf	P300/CBP-associated factor
F06	Rn.214685	NM_001002278	Pofut1	Protein O-fucosyltransferase 1
F07	Rn.23443	NM_013124	Pparg	Peroxisome proliferator-activated receptor gamma
F08	Rn.44440	NM_019163	Psen1	Presenilin 1
F09	Rn.11045	NM_031087	Psen2	Presenilin 2
F10	Rn.1240	NM_001008764	Psenen	Presenilin enhancer 2 homolog (C. elegans)
F11	Rn.92370	XM_001065627	Ptcr	Pre T-cell antigen receptor alpha
F12	Rn.219869	NM_001108604	Rbpjl	Recombination signal binding protein for immunoglobulin kappa J region-like
G01	Rn.168817	NM_021849	Rfng	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
G02	Rn.11201	NM_017325	Runx1	Runt-related transcription factor 1
G03	Rn.20802	NM_177933	Sel1l	Sel-1 suppressor of lin-12-like (C. elegans)
G04	Rn.10432	NM_017221	Shh	Sonic hedgehog
G05	Rn.44429	NM_012807	Smo	Smoothened homolog (Drosophila)
G06	Rn.6880	NM_001044250	Stat6	Signal transducer and activator of transcription 6
G07	Rn.211670	NM_001024899	Sufu	Suppressor of fused homolog (Drosophila)
G08	Rn.7144	XM_239258	Supt6h	Suppressor of Ty 6 homolog (S. cerevisiae)
G09	Rn.6875	XM_342851	Tle1	Transducin-like enhancer of split 1 (E(sp1) homolog, Drosophila)
G10	Rn.63486	NM_031716	Wisp1	WNT1 inducible signaling pathway protein 1
G11	Rn.55941	NM_080401	Wnt11	Wingless-type MMTV integration site family, member 11
G12	Rn.64359	NM_001108392	Zic2	Zic family member 2 (odd-paired homolog, Drosophila)
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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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