

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

Human Notch Signaling Pathway

Cat. no. 330231 PAHS-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 Human 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	AXIN1	CBL	CCND1	CCNE1	CD44	CDKN1A	CFLAR	CHUK	CTNNB1
B	DLL1	DLL3	DLL4	DTX1	EP300	ERBB2	FIGF	FOS	FOSL1	FZD2	FZD3	FZD4
C	FZD7	GLI1	GSK3B	HDAC1	HES1	HES5	HEY1	HEY2	HEYL	HOXB4	HR	ID1
D	IFNG	IL17B	IL2RA	JAG1	JAG2	KRT1	LFNG	LMO2	LOR	LRP5	MAML1	MAML2
E	MFNG	MMP7	NCOR2	NCSTN	NEURL	NFKB1	NFKB2	NOTCH1	NOTCH2	NOTCH2NL	NOTCH3	NOTCH4
F	NR4A2	NUMB	PAX5	POFUT1	PPARG	PSEN1	PSEN2	PSENEN	PTCRA	RBPJL	RFNG	RUNX1
G	SEL1L	SH2D1A	SHH	SMO	SNW1	STAT6	STIL	SUFU	TLE1	WISP1	WNT11	ZIC2
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.578508	NM_001110	ADAM10	ADAM metalloproteinase domain 10
A02	Hs.404914	NM_003183	ADAM17	ADAM metalloproteinase domain 17
A03	Hs.515053	NM_001130	AES	Amino-terminal enhancer of split
A04	Hs.592082	NM_003502	AXIN1	Axin 1
A05	Hs.504096	NM_005188	CBL	Cas-Br-M (murine) ecotropic retroviral transforming sequence
A06	Hs.523852	NM_053056	CCND1	Cyclin D1
A07	Hs.244723	NM_001238	CCNE1	Cyclin E1
A08	Hs.502328	NM_000610	CD44	CD44 molecule (Indian blood group)
A09	Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
A10	Hs.390736	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator
A11	Hs.198998	NM_001278	CHUK	Conserved helix-loop-helix ubiquitous kinase
A12	Hs.476018	NM_001904	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
B01	Hs.379912	NM_005618	DLL1	Delta-like 1 (Drosophila)
B02	Hs.127792	NM_016941	DLL3	Delta-like 3 (Drosophila)
B03	Hs.511076	NM_019074	DLL4	Delta-like 4 (Drosophila)
B04	Hs.372152	NM_004416	DTX1	Deltex homolog 1 (Drosophila)
B05	Hs.517517	NM_001429	EP300	E1A binding protein p300
B06	Hs.446352	NM_004448	ERBB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
B07	Hs.11392	NM_004469	FIGF	C-fos induced growth factor (vascular endothelial growth factor D)
B08	Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
B09	Hs.283565	NM_005438	FOSL1	FOS-like antigen 1
B10	Hs.142912	NM_001466	FZD2	Frizzled family receptor 2
B11	Hs.40735	NM_017412	FZD3	Frizzled family receptor 3
B12	Hs.19545	NM_012193	FZD4	Frizzled family receptor 4
C01	Hs.173859	NM_003507	FZD7	Frizzled family receptor 7
C02	Hs.632702	NM_005269	GLI1	GLI family zinc finger 1
C03	Hs.445733	NM_002093	GSK3B	Glycogen synthase kinase 3 beta
C04	Hs.88556	NM_004964	HDAC1	Histone deacetylase 1
C05	Hs.250666	NM_005524	HES1	Hairy and enhancer of split 1, (Drosophila)
C06	Hs.57971	NM_001010926	HES5	Hairy and enhancer of split 5 (Drosophila)
C07	Hs.234434	NM_012258	HEY1	Hairy/enhancer-of-split related with YRPW motif 1
C08	Hs.144287	NM_012259	HEY2	Hairy/enhancer-of-split related with YRPW motif 2
C09	Hs.472566	NM_014571	HEYL	Hairy/enhancer-of-split related with YRPW motif-like
C10	Hs.664706	NM_024015	HOXB4	Homeobox B4
C11	Hs.272367	NM_018411	HR	Hairless homolog (mouse)
C12	Hs.504609	NM_002165	ID1	Inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
D01	Hs.856	NM_000619	IFNG	Interferon, gamma
D02	Hs.156979	NM_014443	IL17B	Interleukin 17B
D03	Hs.231367	NM_000417	IL2RA	Interleukin 2 receptor, alpha
D04	Hs.728907	NM_000214	JAG1	Jagged 1
D05	Hs.433445	NM_002226	JAG2	Jagged 2
D06	Hs.80828	NM_006121	KRT1	Keratin 1
D07	Hs.159142	NM_001040167	LFNG	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
D08	Hs.34560	NM_005574	LMO2	LIM domain only 2 (rhombotin-like 1)

Position	UniGene	GenBank	Symbol	Description
D09	Hs.251680	NM_000427	LOR	Loricrin
D10	Hs.6347	NM_002335	LRP5	Low density lipoprotein receptor-related protein 5
D11	Hs.631951	NM_014757	MAML1	Mastermind-like 1 (Drosophila)
D12	Hs.428214	NM_032427	MAML2	Mastermind-like 2 (Drosophila)
E01	Hs.517603	NM_002405	MFNG	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
E02	Hs.2256	NM_002423	MMP7	Matrix metalloproteinase 7 (matrilysin, uterine)
E03	Hs.137510	NM_006312	NCOR2	Nuclear receptor corepressor 2
E04	Hs.517249	NM_015331	NCSTN	Nicastrin
E05	Hs.716382	NM_004210	NEURL	Neuralized homolog (Drosophila)
E06	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E07	Hs.73090	NM_002502	NFKB2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)
E08	Hs.495473	NM_017617	NOTCH1	Notch 1
E09	Hs.487360	NM_024408	NOTCH2	Notch 2
E10	Hs.728902	NM_203458	NOTCH2NL	Notch 2 N-terminal like
E11	Hs.8546	NM_000435	NOTCH3	Notch 3
E12	Hs.436100	NM_004557	NOTCH4	Notch 4
F01	Hs.563344	NM_006186	NR4A2	Nuclear receptor subfamily 4, group A, member 2
F02	Hs.654609	NM_003744	NUMB	Numb homolog (Drosophila)
F03	Hs.654464	NM_016734	PAX5	Paired box 5
F04	Hs.472409	NM_172236	POFUT1	Protein O-fucosyltransferase 1
F05	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
F06	Hs.3260	NM_000021	PSEN1	Presenilin 1
F07	Hs.25363	NM_000447	PSEN2	Presenilin 2 (Alzheimer disease 4)
F08	Hs.534465	NM_172341	PSENEN	Presenilin enhancer 2 homolog (C. elegans)
F09	Hs.169002	NM_138296	PTCRA	Pre T-cell antigen receptor alpha
F10	Hs.248217	NM_014276	RBPJL	Recombination signal binding protein for immunoglobulin kappa J region-like
F11	Hs.569700	NM_002917	RFNG	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
F12	Hs.149261	NM_001754	RUNX1	Runt-related transcription factor 1
G01	Hs.181300	NM_005065	SEL1L	Sel-1 suppressor of lin-12-like (C. elegans)
G02	Hs.349094	NM_002351	SH2D1A	SH2 domain containing 1A
G03	Hs.164537	NM_000193	SHH	Sonic hedgehog
G04	Hs.437846	NM_005631	SMO	Smoothened, frizzled family receptor
G05	Hs.445498	NM_012245	SNW1	SNW domain containing 1
G06	Hs.524518	NM_003153	STAT6	Signal transducer and activator of transcription 6, interleukin-4 induced
G07	Hs.525198	NM_003035	STIL	SCL/TAL1 interrupting locus
G08	Hs.404089	NM_016169	SUFU	Suppressor of fused homolog (Drosophila)
G09	Hs.197320	NM_005077	TLE1	Transducin-like enhancer of split 1 (E(sp1) homolog, Drosophila)
G10	Hs.492974	NM_003882	WISP1	WNT1 inducible signaling pathway protein 1
G11	Hs.108219	NM_004626	WNT11	Wingless-type MMTV integration site family, member 11
G12	Hs.653700	NM_007129	ZIC2	Zic family member 2
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.
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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