

# QuantiNova® LNA® Probe PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

## Rat Notch Signaling Pathway

Cat. no. 249955 UPRN-059ZA

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light at 2–8°C for short term storage or at –30°C to –15°C for long time storage. Under these conditions, all components are stable for at least 12 months.

**Note:** Open the package and store the products appropriately immediately upon receipt.

For optimal performance, QuantiNova LNA Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

### Panel layout (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA Probe PCR Handbook at [www.qiagen.com](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Adam10	Adam17	Aes	Aph1a	Wnt1	Cbl	Ccnd1	Ccne1	Cd44	Cdkn1a	Cflar	Chuk
<b>B</b>	Ctnnb1	Dll1	Dll3	Dll4	Dvl1	AABR0705853 9.1	ErbB2	Vegfd	Fos	Fosl1	Fzd2	Fzd3
<b>C</b>	Fzd4	Fzd5	Fzd6	Fzd7	Gbp2	Gli1	Gsk3b	Hdac1	Hes1	Hes5	Hey1	Hey2
<b>D</b>	Hey1	Hoxb4	Hr	Id1	lfrng	Il17b	Il2ra	Il6st	Jag1	Jag2	Krt1	Lfrng
<b>E</b>	Lmo2	Lrp5	Mam1	Mfng	Mmp7	Ncor2	Ncstn	Neur1	Nrk1	Nrk2	Notch1	Notch2
<b>F</b>	Notch3	Notch4	Nr4a2	Numb	AABR0706618 0.1	Pofu1	Pparg	Psen1	Psen2	Psenen	Ptcr	Rbpj
<b>G</b>	Rfng	Runx1	Sel1l	Shh	Smo	Stat6	Sufu	Supt6h	Tle1	Ccn4	Wnt11	Zic2
<b>H</b>	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1053711	ENSRNOT00000083255.1	Adam10	ENSRNOG0000054257	ADAM metallopeptidase domain 10 Source RGD Symbol Acc 2032
A02	UPFR1096573	ENSRNOT00000081110.1	Adam17	ENSRNOG0000060694	ADAM metallopeptidase domain 17 Source RGD Symbol Acc 620404
A03	UPFR1077103	ENSRNOT00000092061.1	Aes	ENSRNOG0000052025	amino-terminal enhancer of split Source RGD Symbol Acc 2731
A04	UPFR1037080	ENSRNOT00000056289.3	Aph1a	ENSRNOG0000023816	aph-1 homolog A, gamma secretase subunit Source RGD Symbol Acc 1311546
A05	UPFR1120741	ENSRNOT00000090156.1	Wnt1	ENSRNOG0000061818	Wnt family member 1 Source RGD Symbol Acc 1597195
A06	UPFR1075129	ENSRNOT00000067902.3	Cbl	ENSRNOG000008444	Cbl proto-oncogene Source RGD Symbol Acc 1561386
A07	UPFR1042457	ENSRNOT00000088588.1	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A08	UPFR1117418	ENSRNOT00000020014.4	Ccne1	ENSRNOG0000014786	cyclin E1 Source RGD Symbol Acc 2294
A09	UPFR1040363	ENSRNOT00000009073.7	Cd44	ENSRNOG0000006094	CD44 molecule (Indian blood group) Source RGD Symbol Acc 2307
A10	UPFR1028644	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
A11	UPFR1108095	ENSRNOT00000016730.5	Cflar	ENSRNOG0000012473	CASP8 and FADD-like apoptosis regulator Source RGD Symbol Acc 620847
A12	UPFR1110725	ENSRNOT00000030782.4	Chuk	ENSRNOG0000022485	conserved helix-loop-helix ubiquitous kinase Source RGD Symbol Acc 1306661
B01	UPFR1057605	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B02	UPFR1058929	ENSRNOT00000080429.1	Dll1	ENSRNOG0000059984	delta like canonical Notch ligand 1 Source RGD Symbol Acc 70949
B03	UPFR1094948	ENSRNOT00000026182.4	Dll3	ENSRNOG0000019338	delta like canonical Notch ligand 3 Source RGD Symbol Acc 70953
B04	UPFR1116135	ENSRNOT00000018970.6	Dll4	ENSRNOG0000014011	delta like canonical Notch ligand 4 Source RGD Symbol Acc 1309740
B05	UPFR1108891	ENSRNOT00000026439.5	Dvl1	ENSRNOG0000019423	dishevelled segment polarity protein 1 Source RGD Symbol Acc 620632
B06	UPFR1102114	ENSRNOT00000000206.7	AABR07058539.1	ENSRNOG0000000190	
B07	UPFR1024636	ENSRNOT00000009114.7	ErbB2	ENSRNOG0000006450	erb-b2 receptor tyrosine kinase 2 Source RGD Symbol Acc 2561
B08	UPFR1115126	ENSRNOT00000068601.2	Vegfd	ENSRNOG0000003587	vascular endothelial growth factor D Source RGD Symbol Acc 620695
B09	UPFR1045359	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
B10	UPFR1040543	ENSRNOT00000027891.2	Fos1	ENSRNOG0000020552	FOS like 1, AP-1 transcription factor subunit Source RGD Symbol Acc 2627
B11	UPFR1013999	ENSRNOT00000032944.2	Fzd2	ENSRNOG0000021962	frizzled class receptor 2 Source RGD Symbol Acc 71012
B12	UPFR1101930	ENSRNOT00000071464.1	Fzd3	ENSRNOG0000047211	frizzled class receptor 3 Source RGD Symbol Acc 628814
C01	UPFR1029590	ENSRNOT00000023205.6	Fzd4	ENSRNOG0000016848	frizzled class receptor 4 Source RGD Symbol Acc 71017
C02	UPFR1079665	ENSRNOT00000019698.4	Fzd5	ENSRNOG0000014678	frizzled class receptor 5 Source RGD Symbol Acc 631406
C03	UPFR1067671	ENSRNOT00000006195.5	Fzd6	ENSRNOG0000004660	frizzled class receptor 6 Source RGD Symbol Acc 628816
C04	UPFR1085249	ENSRNOT00000021569.6	Fzd7	ENSRNOG0000016119	frizzled class receptor 7 Source RGD Symbol Acc 2321905
C05	UPFR1097453	ENSRNOT00000068683.3	Gbp2	ENSRNOG0000031743	guanylate binding protein 2 Source RGD Symbol Acc 621810
C06	UPFR1075414	ENSRNOT00000009803.7	Gli1	ENSRNOG0000025120	GLI family zinc finger 1 Source RGD Symbol Acc 621673
C07	UPFR1109626	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C08	UPFR1113247	ENSRNOT00000012854.6	Hdac1	ENSRNOG0000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
C09	UPFR1076214	ENSRNOT00000002346.7	Hes1	ENSRNOG0000001720	hes family bHLH transcription factor 1 Source RGD Symbol Acc 62081
C10	UPFR1126554	ENSRNOT00000018769.2	Hes5	ENSRNOG0000013850	hes family bHLH transcription factor 5 Source RGD Symbol Acc 621340
		ENSRNOT000000		ENSRNOG00	hes-related family bHLH transcription factor with YRPW motif 1 Source NCBI

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1104855	015537.7	Hey1	000011593	gene Acc 155437
C12	UPFR1069377	ENSRNOT00000 018718.6	Hey2	ENSRNOG00 000013364	hes-related family bHLH transcription factor with YRPW motif 2 Source RGD Symbol Acc 621405
D01	UPFR1097117	ENSRNOT00000 020929.3	Heyl	ENSRNOG00 000015318	hes-related family bHLH transcription factor with YRPW motif-like Source RGD Symbol Acc 1305022
D02	UPFR1049412	ENSRNOT00000 010965.4	Hoxb4	ENSRNOG00 000008191	homeo box B4 Source RGD Symbol Acc 1560113
D03	UPFR1059354	ENSRNOT00000 015716.4	Hr	ENSRNOG00 000011427	HR, lysine demethylase and nuclear receptor corepressor Source RGD Symbol Acc 620634
D04	UPFR1039525	ENSRNOT00000 029660.5	Id1	ENSRNOG00 000021750	inhibitor of DNA binding 1, HLH protein Source RGD Symbol Acc 2858
D05	UPFR1084134	ENSRNOT00000 009919.2	Ifnf	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
D06	UPFR1119999	ENSRNOT00000 026679.6	Il17b	ENSRNOG00 000019695	interleukin 17B Source RGD Symbol Acc 620614
D07	UPFR1114337	ENSRNOT00000 073144.2	Il2ra	ENSRNOG00 000047647	interleukin 2 receptor subunit alpha Source RGD Symbol Acc 2895
D08	UPFR1023505	ENSRNOT00000 018877.7	Il6st	ENSRNOG00 000013963	interleukin 6 signal transducer Source RGD Symbol Acc 2903
D09	UPFR1082062	ENSRNOT00000 010638.7	Jag1	ENSRNOG00 000007443	jagged 1 Source RGD Symbol Acc 2937
D10	UPFR1115003	ENSRNOT00000 019213.6	Jag2	ENSRNOG00 000013927	jagged 2 Source RGD Symbol Acc 2938
D11	UPFR1058558	ENSRNOT00000 034450.4	Krt1	ENSRNOG00 000028996	keratin 1 Source RGD Symbol Acc 1359664
D12	UPFR1022297	ENSRNOT00000 001682.6	Lfnf	ENSRNOG00 000001250	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source RGD Symbol Acc 620587
E01	UPFR1058429	ENSRNOT00000 012625.6	Lmo2	ENSRNOG00 000009401	LIM domain only 2 Source RGD Symbol Acc 1307101
E02	UPFR1116126	ENSRNOT00000 022213.7	Lrp5	ENSRNOG00 000015911	LDL receptor related protein 5 Source RGD Symbol Acc 1309329
E03	UPFR1039174	ENSRNOT00000 004361.6	Maml1	ENSRNOG00 000003268	mastermind-like transcriptional coactivator 1 Source RGD Symbol Acc 1308631
E04	UPFR1082555	ENSRNOT00000 011079.4	Mfnf	ENSRNOG00 000008133	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source RGD Symbol Acc 735126
E05	UPFR1034539	ENSRNOT00000 014041.5	Mmp7	ENSRNOG00 000010507	matrix metalloproteinase 7 Source RGD Symbol Acc 3100
E06	UPFR1112706	ENSRNOT00000 001334.6	Ncor2	ENSRNOG00 000001004	nuclear receptor co-repressor 2 Source RGD Symbol Acc 1310293
E07	UPFR1040843	ENSRNOT00000 008150.5	Ncstn	ENSRNOG00 000005355	nicastrin Source RGD Symbol Acc 631418
E08	UPFR1086255	ENSRNOT00000 054696.2	Neur1	ENSRNOG00 000020339	neuralized E3 ubiquitin protein ligase 1 Source RGD Symbol Acc 1307021
E09	UPFR1116688	ENSRNOT00000 036838.4	Nfkb1	ENSRNOG00 000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E10	UPFR1025860	ENSRNOT00000 026235.3	Nfkb2	ENSRNOG00 000019311	nuclear factor kappa B subunit 2 Source RGD Symbol Acc 1307189
E11	UPFR1044597	ENSRNOT00000 026212.7	Notch1	ENSRNOG00 000019322	notch 1 Source RGD Symbol Acc 3187
E12	UPFR1064592	ENSRNOT00000 025718.4	Notch2	ENSRNOG00 000018835	notch 2 Source RGD Symbol Acc 3188
F01	UPFR1027756	ENSRNOT00000 037456.4	Notch3	ENSRNOG00 000004346	notch 3 Source RGD Symbol Acc 620761
F02	UPFR1111007	ENSRNOT00000 000513.4	Notch4	ENSRNOG00 000000442	notch 4 Source RGD Symbol Acc 1303282
F03	UPFR1088324	ENSRNOT00000 078001.1	Nr4a2	ENSRNOG00 000005600	nuclear receptor subfamily 4, group A, member 2 Source RGD Symbol Acc 3202
F04	UPFR1040090	ENSRNOT00000 042594.5	Numb	ENSRNOG00 000009653	NUMB, endocytic adaptor protein Source RGD Symbol Acc 620107
F05	UPFR1095920	ENSRNOT00000 061882.4	AABR0706 6180.1	ENSRNOG00 000011871	
F06	UPFR1033985	ENSRNOT00000 013730.3	Pofut1	ENSRNOG00 000010104	protein O-fucosyltransferase 1 Source RGD Symbol Acc 1303001
F07	UPFR1091351	ENSRNOT00000 051858.5	Pparg	ENSRNOG00 000008839	peroxisome proliferator-activated receptor gamma Source RGD Symbol Acc 3371
F08	UPFR1095499	ENSRNOT00000 012495.7	Psen1	ENSRNOG00 000009110	presenilin 1 Source RGD Symbol Acc 3425
F09	UPFR1089192	ENSRNOT00000 040203.4	Psen2	ENSRNOG00 000002879	presenilin 2 Source RGD Symbol Acc 621060
F10	UPFR1111997	ENSRNOT00000 028438.4	Psenen	ENSRNOG00 000020941	presenilin enhancer gamma secretase subunit Source RGD Symbol Acc 1312037

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1016521	ENSRNOT00000091565.1	Ptcrn	ENSRNOG0000042581	pre T-cell antigen receptor alpha Source RGD Symbol Acc 621388
F12	UPFR1038422	ENSRNOT00000019127.5	Rbpjl	ENSRNOG0000026295	recombination signal binding protein for immunoglobulin kappa J region-like Source RGD Symbol Acc 1304786
G01	UPFR1097324	ENSRNOT00000078052.1	Rfng	ENSRNOG0000050298	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source RGD Symbol Acc 621322
G02	UPFR1113082	ENSRNOT00000002313.4	Runx1	ENSRNOG0000001704	runt-related transcription factor 1 Source RGD Symbol Acc 2283
G03	UPFR1047588	ENSRNOT00000006143.6	Sel1l	ENSRNOG0000004464	SEL1L ERAD E3 ligase adaptor subunit Source RGD Symbol Acc 620147
G04	UPFR1066763	ENSRNOT00000008497.2	Shh	ENSRNOG0000006120	sonic hedgehog signaling molecule Source RGD Symbol Acc 3673
G05	UPFR1032074	ENSRNOT00000080223.1	Smo	ENSRNOG0000008332	smoothed, frizzled class receptor Source RGD Symbol Acc 3726
G06	UPFR1082210	ENSRNOT00000085350.1	Stat6	ENSRNOG0000025023	signal transducer and activator of transcription 6 Source RGD Symbol Acc 1309063
G07	UPFR1102434	ENSRNOT00000026987.5	Sufu	ENSRNOG0000019807	SUFU negative regulator of hedgehog signaling Source RGD Symbol Acc 1559462
G08	UPFR1041552	ENSRNOT00000016759.6	Supt6h	ENSRNOG0000012240	SPT6 homolog, histone chaperone Source RGD Symbol Acc 1309290
G09	UPFR1113015	ENSRNOT00000058906.3	Tle1	ENSRNOG0000005882	TLE family member 1, transcriptional corepressor Source RGD Symbol Acc 1309237
G10	UPFR1109359	ENSRNOT00000009673.7	Ccn4	ENSRNOG0000007078	cellular communication network factor 4 Source RGD Symbol Acc 69431
G11	UPFR1057474	ENSRNOT00000021674.5	Wnt11	ENSRNOG0000015982	Wnt family member 11 Source RGD Symbol Acc 621463
G12	UPFR1028940	ENSRNOT00000089455.1	Zic2	ENSRNOG0000054879	Zic family member 2 Source RGD Symbol Acc 1311174
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
QuantiNova Reverse Transcription Kit (10)*	For 10 x 20 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208252

\*Larger kit sizes available.

The QuantiNova LNA Probe PCR Focus Panels 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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.