

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

## Rat Signal Transduction PathwayFinder™,ç

Cat. no. 249955 UPRN-014ZA

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>	Acsl3	Acsl4	Acsl5	Adm	Arnt	Aif4	Axin2	Bax	Pmaip1	Bcl2	Bcl2a1	Bcl2l1
<b>B</b>	Birc3	Bmp2	Bmp4	Btg2	Car9	Ccl5	Ccnd1	Ccnd2	Cdkn1a	Cdkn1b	Cebpd	Cpt2
<b>C</b>	Csf1	Dab2	Egfr	Emp1	Epo	Fabp1	Fas	Fcer2	Fosl1	Fth1	Gadd45a	Gadd45b
<b>D</b>	Gata3	Gclc	Gclm	Gsr	Herpud1	Hes1	Hes5	Hey1	Hey2	Heyl	Hmox1	Icam1
<b>E</b>	Id1	Ifng	Ifrd1	Irf1	Jag1	Pgk1	Lfng	Lrg1	Crp	Mmp7	Myc	Notch1
<b>F</b>	Nqo1	Olr1	Pcna	Ppard	Ptch1	Rb1	Serpine1	Slc27a4	Slc2a1	Socs3	Sorbs1	Sqstm1
<b>G</b>	Slat1	LOC1036943 80	Tnfrsf10	Txn1	Txnrd1	Vegfa	Ccn4	Wnt1	Wnt2b	Wnt3a	Wnt5a	Wnt6
<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	UPFR1023034	ENSRNOT00000020161.2	Acsl3	ENSRNOG0000014718	acyl-CoA synthetase long-chain family member 3 Source RGD Symbol Acc 70552
A02	UPFR1082627	ENSRNOT00000026057.6	Acsl4	ENSRNOG0000019180	acyl-CoA synthetase long-chain family member 4 Source RGD Symbol Acc 69401
A03	UPFR1034409	ENSRNOT00000022126.6	Acsl5	ENSRNOG0000016265	acyl-CoA synthetase long-chain family member 5 Source RGD Symbol Acc 69402
A04	UPFR1061154	ENSRNOT00000036718.1	Adm	ENSRNOG0000027030	adrenomedullin Source RGD Symbol Acc 2047
A05	UPFR1041304	ENSRNOT00000044738.4	Arnt	ENSRNOG0000031174	aryl hydrocarbon receptor nuclear translocator Source RGD Symbol Acc 2153
A06	UPFR1067882	ENSRNOT00000065304.4	Atf4	ENSRNOG0000017801	activating transcription factor 4 Source RGD Symbol Acc 621863
A07	UPFR1102592	ENSRNOT00000088599.1	Axin2	ENSRNOG0000055010	axin 2 Source RGD Symbol Acc 69259
A08	UPFR1074536	ENSRNOT00000028328.5	Bax	ENSRNOG0000020876	BCL2 associated X, apoptosis regulator Source RGD Symbol Acc 2192
A09	UPFR1055085	ENSRNOT00000025362.3	Pmaip1	ENSRNOG0000018770	phorbol-12-myristate-13-acetate-induced protein 1 Source RGD Symbol Acc 1359266
A10	UPFR1082998	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
A11	UPFR1064713	ENSRNOT00000039850.3	Bcl2a1	ENSRNOG0000047606	BCL2-related protein A1 Source RGD Symbol Acc 620621
A12	UPFR1047186	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
B01	UPFR1015683	ENSRNOT00000007702.7	Birc3	ENSRNOG0000005731	baculoviral IAP repeat-containing 3 Source RGD Symbol Acc 621282
B02	UPFR1023820	ENSRNOT00000028904.4	Bmp2	ENSRNOG0000021276	bone morphogenetic protein 2 Source RGD Symbol Acc 2211
B03	UPFR1013450	ENSRNOT00000083268.1	Bmp4	ENSRNOG0000009694	bone morphogenetic protein 4 Source RGD Symbol Acc 2213
B04	UPFR1061715	ENSRNOT00000004408.3	Btg2	ENSRNOG0000003300	BTG anti-proliferation factor 2 Source RGD Symbol Acc 2225
B05	UPFR1102120	ENSRNOT00000023060.5	Car9	ENSRNOG0000017073	carbonic anhydrase 9 Source RGD Symbol Acc 1306426
B06	UPFR1019085	ENSRNOT00000014865.6	Ccl5	ENSRNOG0000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
B07	UPFR1042457	ENSRNOT00000088588.1	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
B08	UPFR1088052	ENSRNOT00000086440.1	Ccnd2	ENSRNOG0000057710	cyclin D2 Source RGD Symbol Acc 621083
B09	UPFR1028644	ENSRNOT000000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B10	UPFR1069360	ENSRNOT000000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B11	UPFR1073105	ENSRNOT00000074586.2	Cebpd	ENSRNOG0000050869	CCAAT/enhancer binding protein delta Source RGD Symbol Acc 2328
B12	UPFR1106957	ENSRNOT00000016954.3	Cpt2	ENSRNOG0000012443	carnitine palmitoyltransferase 2 Source RGD Symbol Acc 2398
C01	UPFR1022984	ENSRNOT00000081835.1	Csf1	ENSRNOG0000018659	colony stimulating factor 1 Source RGD Symbol Acc 621063
C02	UPFR1110844	ENSRNOT00000050655.5	Dab2	ENSRNOG0000028930	DAB2, clathrin adaptor protein Source RGD Symbol Acc 621007
C03	UPFR1091984	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
C04	UPFR1029298	ENSRNOT00000079785.1	Emp1	ENSRNOG0000008676	epithelial membrane protein 1 Source RGD Symbol Acc 2552
C05	UPFR1023629	ENSRNOT00000001914.4	Epo	ENSRNOG0000001412	erythropoietin Source RGD Symbol Acc 2559
C06	UPFR1068726	ENSRNOT00000008840.5	Fabp1	ENSRNOG0000006675	fatty acid binding protein 1 Source RGD Symbol Acc 2590
C07	UPFR1075141	ENSRNOT00000025928.5	Fas	ENSRNOG0000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
C08	UPFR1096454	ENSRNOT00000001333.4	Fcer2	ENSRNOG0000001005	Fc fragment of IgE receptor II Source RGD Symbol Acc 619997
C09	UPFR1040543	ENSRNOT00000027891.2	Fosl1	ENSRNOG0000020552	FOS like 1, AP-1 transcription factor subunit Source RGD Symbol Acc 2627
C10	UPFR1072612	ENSRNOT00000030919.5	Fth1	ENSRNOG0000022619	ferritin heavy chain 1 Source RGD Symbol Acc 2635
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1092990	007698.6	Gadd45a	000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
C12	UPFR1054309	ENSRNOT00000 026871.4	Gadd45b	ENSRNOG00 000019822	growth arrest and DNA-damage-inducible, beta Source RGD Symbol Acc 1309080
D01	UPFR1027517	ENSRNOT00000 026187.5	Gata3	ENSRNOG00 000019336	GATA binding protein 3 Source RGD Symbol Acc 621250
D02	UPFR1065988	ENSRNOT00000 033196.3	Gclc	ENSRNOG00 000006302	glutamate-cysteine ligase, catalytic subunit Source RGD Symbol Acc 619868
D03	UPFR1071868	ENSRNOT00000 018343.4	Gclm	ENSRNOG00 000013409	glutamate cysteine ligase, modifier subunit Source RGD Symbol Acc 619871
D04	UPFR1080300	ENSRNOT00000 090036.1	Gsr	ENSRNOG00 000014915	glutathione-disulfide reductase Source RGD Symbol Acc 621747
D05	UPFR1015276	ENSRNOT00000 025559.5	Herpud1	ENSRNOG00 000018796	homocysteine inducible ER protein with ubiquitin like domain 1 Source RGD Symbol Acc 620818
D06	UPFR1076214	ENSRNOT00000 002346.7	Hes1	ENSRNOG00 000001720	hes family bHLH transcription factor 1 Source RGD Symbol Acc 62081
D07	UPFR1126554	ENSRNOT00000 018769.2	Hes5	ENSRNOG00 000013850	hes family bHLH transcription factor 5 Source RGD Symbol Acc 621340
D08	UPFR1104855	ENSRNOT00000 015537.7	Hey1	ENSRNOG00 000011593	hes-related family bHLH transcription factor with YRPW motif 1 Source NCBI gene Acc 155437
D09	UPFR1069377	ENSRNOT00000 018718.6	Hey2	ENSRNOG00 000013364	hes-related family bHLH transcription factor with YRPW motif 2 Source RGD Symbol Acc 621405
D10	UPFR1097117	ENSRNOT00000 020929.3	Heyl	ENSRNOG00 000015318	hes-related family bHLH transcription factor with YRPW motif-like Source RGD Symbol Acc 1305022
D11	UPFR1040868	ENSRNOT00000 019192.6	Hmox1	ENSRNOG00 000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
D12	UPFR1031281	ENSRNOT00000 028066.5	Icam1	ENSRNOG00 000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
E01	UPFR1039525	ENSRNOT00000 029660.5	Id1	ENSRNOG00 000021750	inhibitor of DNA binding 1, HLH protein Source RGD Symbol Acc 2858
E02	UPFR1084134	ENSRNOT00000 009919.2	Iifng	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
E03	UPFR1048152	ENSRNOT00000 073910.1	Iifrd1	ENSRNOG00 000050997	interferon-related developmental regulator 1 Source RGD Symbol Acc 2867
E04	UPFR1043289	ENSRNOT00000 010968.6	Irf1	ENSRNOG00 000008144	interferon regulatory factor 1 Source RGD Symbol Acc 2920
E05	UPFR1082062	ENSRNOT00000 010638.7	Jag1	ENSRNOG00 000007443	jagged 1 Source RGD Symbol Acc 2937
E06	UPFR1132956	ENSRNOT00000 077604.1	Pgk1	ENSRNOG00 000058249	phosphoglycerate kinase 1 Source RGD Symbol Acc 619878
E07	UPFR1022297	ENSRNOT00000 001682.6	Lfng	ENSRNOG00 000001250	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source RGD Symbol Acc 620587
E08	UPFR1037204	ENSRNOT00000 074993.2	Lrg1	ENSRNOG00 000049918	leucine-rich alpha-2-glycoprotein 1 Source RGD Symbol Acc 1359464
E09	UPFR1072132	ENSRNOT00000 000058.6	Crp	ENSRNOG00 000000053	C-reactive protein Source RGD Symbol Acc 2411
E10	UPFR1034539	ENSRNOT00000 014041.5	Mmp7	ENSRNOG00 000010507	matrix metalloproteinase 7 Source RGD Symbol Acc 3100
E11	UPFR1101439	ENSRNOT00000 006188.5	Myc	ENSRNOG00 000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
E12	UPFR1044597	ENSRNOT00000 026212.7	Notch1	ENSRNOG00 000019322	notch 1 Source RGD Symbol Acc 3187
F01	UPFR1111217	ENSRNOT00000 017174.5	Nqo1	ENSRNOG00 000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
F02	UPFR1028876	ENSRNOT00000 086390.1	Olr1	ENSRNOG00 000056219	oxidized low density lipoprotein receptor 1 Source RGD Symbol Acc 620515
F03	UPFR1093185	ENSRNOT00000 028887.6	Pcna	ENSRNOG00 000021264	proliferating cell nuclear antigen Source RGD Symbol Acc 3269
F04	UPFR1082868	ENSRNOT00000 042539.5	Ppard	ENSRNOG00 000000503	peroxisome proliferator-activated receptor delta Source RGD Symbol Acc 3370
F05	UPFR1054272	ENSRNOT00000 086130.1	Ptch1	ENSRNOG00 000019354	patched 1 Source RGD Symbol Acc 621425
F06	UPFR1039430	ENSRNOT00000 021752.5	Rb1	ENSRNOG00 000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F07	UPFR1051798	ENSRNOT00000 001916.2	Serpine1	ENSRNOG00 000001414	serpin family E member 1 Source RGD Symbol Acc 3249
F08	UPFR1026149	ENSRNOT00000 019500.6	Slc27a4	ENSRNOG00 000014369	solute carrier family 27 member 4 Source RGD Symbol Acc 1307383
F09	UPFR1052096	ENSRNOT00000 083700.1	Slc2a1	ENSRNOG00 000007284	solute carrier family 2 member 1 Source RGD Symbol Acc 3704
F10	UPFR1069728	ENSRNOT00000 003940.3	Socs3	ENSRNOG00 000002946	suppressor of cytokine signaling 3 Source RGD Symbol Acc 621087

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1049169	ENSRNOT00000021114.8	Sorbs1	ENSRNOG0000015658	sorbin and SH3 domain containing 1 Source RGD Symbol Acc 1586598
F12	UPFR1112424	ENSRNOT00000059255.5	Sqstm1	ENSRNOG0000003147	sequestosome 1 Source RGD Symbol Acc 69287
G01	UPFR1068760	ENSRNOT00000083514.1	Stat1	ENSRNOG0000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G02	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G03	UPFR1107113	ENSRNOT00000017758.5	Tnfsf10	ENSRNOG0000013269	TNF superfamily member 10 Source RGD Symbol Acc 628734
G04	UPFR1060469	ENSRNOT00000016447.6	Txn1	ENSRNOG0000012081	thioredoxin 1 Source RGD Symbol Acc 621157
G05	UPFR1022916	ENSRNOT00000013613.7	Txnrd1	ENSRNOG0000009088	thioredoxin reductase 1 Source RGD Symbol Acc 61959
G06	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G07	UPFR1109359	ENSRNOT00000009673.7	Ccn4	ENSRNOG0000007078	cellular communication network factor 4 Source RGD Symbol Acc 69431
G08	UPFR1120741	ENSRNOT00000090156.1	Wnt1	ENSRNOG0000061818	Wnt family member 1 Source RGD Symbol Acc 1597195
G09	UPFR1054052	ENSRNOT00000019349.4	Wnt2b	ENSRNOG0000014385	Wnt family member 2B Source RGD Symbol Acc 69346
G10	UPFR1043063	ENSRNOT00000064505.3	Wnt3a	ENSRNOG0000003039	Wnt family member 3A Source RGD Symbol Acc 1308057
G11	UPFR1100946	ENSRNOT00000021164.3	Wnt5a	ENSRNOG0000015618	Wnt family member 5A Source RGD Symbol Acc 69250
G12	UPFR1019852	ENSRNOT00000023439.6	Wnt6	ENSRNOG0000017409	Wnt family member 6 Source RGD Symbol Acc 1304559
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.

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