

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

## Rat GPCR Signaling PathwayFinder

Cat. no. 249955 UPRN-071ZA

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
A	Adcy5	Adora2a	Adrb1	Adrb2	Agt	Agtr1b	Agtr2	Agtrap	Akt1	Arb1	Arb2	AABR0705842 2.1
B	Bcl2	Bcl2l1	Calcr	Calcr1	Casr	Ccl2	Ccl4	Ccnd1	Ccne1	Ccne2	Cdkn1a	Cdkn1b
C	Cflar	Col1a1	Crhr1	Crhr2	Ccn2	Cyp19a1	Drd1	Drd2	Dusp14	Edn1	Egr1	Elk1
D	Elk4	Fgf2	Fos	Gatr2	Gcgr	Gnaq	Gnas	Grm1	Grm2	Grm4	Grm5	Grm7
E	Icam1	Il1b	Il1r1	Il1r2	Il2	Jun	Junb	Kcnh8	Lhgr	Lpar1	Lpar2	Max
F	Mmp9	Myc	Nos2	Oprd1	Oprk1	Pdpr1	Pik3cg	Prkca	Ptgs2	Ph1r	Rgs2	Rho
G	S1pr1	S1pr2	S1pr3	Sctr	Serpine1	Socs1	LOC1036943 80	Tshr	Ucp1	Vcam1	Vegfa	Ywhaz
H	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	UPFR1016362	ENSRNOT00000049180.2	Adcy5	ENSRNOG0000002229	adenylate cyclase 5 Source RGD Symbol Acc 71014
A02	UPFR1086017	ENSRNOT00000001759.3	Adora2a	ENSRNOG0000001302	adenosine A2a receptor Source RGD Symbol Acc 2049
A03	UPFR1119895	ENSRNOT00000022813.2	Adrb1	ENSRNOG0000017002	adrenoceptor beta 1 Source RGD Symbol Acc 2059
A04	UPFR1035973	ENSRNOT00000026098.3	Adrb2	ENSRNOG0000019217	adrenoceptor beta 2 Source RGD Symbol Acc 2060
A05	UPFR1049261	ENSRNOT00000024917.4	Agt	ENSRNOG0000018445	angiotensinogen Source RGD Symbol Acc 2069
A06	UPFR1077618	ENSRNOT00000014178.4	Agtr1b	ENSRNOG0000010640	angiotensin II receptor, type 1b Source RGD Symbol Acc 2071
A07	UPFR1096693	ENSRNOT00000074269.1	Agtr2	ENSRNOG0000050006	angiotensin II receptor, type 2 Source RGD Symbol Acc 2072
A08	UPFR1023750	ENSRNOT00000011747.6	Agtrap	ENSRNOG0000008619	angiotensin II receptor-associated protein Source RGD Symbol Acc 1359346
A09	UPFR1083196	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A10	UPFR1122474	ENSRNOT00000043554.4	Arrb1	ENSRNOG0000030404	arrestin, beta 1 Source RGD Symbol Acc 2156
A11	UPFR1107442	ENSRNOT00000026207.7	Arrb2	ENSRNOG0000019308	arrestin, beta 2 Source RGD Symbol Acc 2157
A12	UPFR1031474	ENSRNOT00000076127.2	AABR07058422.1	ENSRNOG0000029450	
B01	UPFR1082998	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
B02	UPFR1047186	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
B03	UPFR1111223	ENSRNOT00000013910.7	Calcr	ENSRNOG0000010053	calcitonin receptor Source RGD Symbol Acc 621001
B04	UPFR1074074	ENSRNOT00000078645.1	Calcr1	ENSRNOG0000054695	calcitonin receptor like receptor Source RGD Symbol Acc 2255
B05	UPFR1077760	ENSRNOT00000003092.5	Casr	ENSRNOG0000002265	calcium-sensing receptor Source RGD Symbol Acc 2277
B06	UPFR1014050	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
B07	UPFR1110783	ENSRNOT00000015199.3	Ccl4	ENSRNOG0000011406	C-C motif chemokine ligand 4 Source RGD Symbol Acc 620441
B08	UPFR1042457	ENSRNOT00000088588.1	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
B09	UPFR1117418	ENSRNOT00000020014.4	Ccne1	ENSRNOG0000014786	cyclin E1 Source RGD Symbol Acc 2294
B10	UPFR1100151	ENSRNOT00000010696.5	Ccne2	ENSRNOG0000008055	cyclin E2 Source RGD Symbol Acc 1307783
B11	UPFR1028644	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B12	UPFR1069360	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
C01	UPFR1108095	ENSRNOT00000016730.5	Cflar	ENSRNOG0000012473	CASP8 and FADD-like apoptosis regulator Source RGD Symbol Acc 620847
C02	UPFR1053469	ENSRNOT00000005311.6	Col1a1	ENSRNOG0000003897	collagen type I alpha 1 chain Source RGD Symbol Acc 61817
C03	UPFR1064735	ENSRNOT00000006764.7	Crhr1	ENSRNOG0000004900	corticotropin releasing hormone receptor 1 Source RGD Symbol Acc 61276
C04	UPFR1060931	ENSRNOT00000033672.3	Crhr2	ENSRNOG0000011145	corticotropin releasing hormone receptor 2 Source RGD Symbol Acc 70547
C05	UPFR1047569	ENSRNOT00000089196.1	Ccn2	ENSRNOG0000015036	cellular communication network factor 2 Source RGD Symbol Acc 621392
C06	UPFR1043142	ENSRNOT00000000212.7	Cyp19a1	ENSRNOG0000000196	cytochrome P450, family 19, subfamily a, polypeptide 1 Source RGD Symbol Acc 2457
C07	UPFR1098242	ENSRNOT00000030893.3	Drd1	ENSRNOG0000023688	dopamine receptor D1 Source RGD Symbol Acc 2518
C08	UPFR1040837	ENSRNOT00000045944.5	Drd2	ENSRNOG0000008428	dopamine receptor D2 Source RGD Symbol Acc 2520
C09	UPFR1023493	ENSRNOT00000043148.6	Dusp14	ENSRNOG0000030091	dual specificity phosphatase 14 Source RGD Symbol Acc 1307415
C10	UPFR1035851	ENSRNOT00000019361.2	Edn1	ENSRNOG0000014361	endothelin 1 Source RGD Symbol Acc 2532
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1034050	026303.4	Egr1	000019422	early growth response 1 Source RGD Symbol Acc 2544
C12	UPFR1044171	ENSRNOT00000 013522.5	Elk1	ENSRNOG00 000010171	ELK1, ETS transcription factor Source RGD Symbol Acc 1598663
D01	UPFR1056009	ENSRNOT00000 090233.1	Elk4	ENSRNOG00 000007887	ELK4, ETS transcription factor Source RGD Symbol Acc 1310504
D02	UPFR1033121	ENSRNOT00000 023388.5	Fgf2	ENSRNOG00 000017392	fibroblast growth factor 2 Source RGD Symbol Acc 2609
D03	UPFR1045359	ENSRNOT00000 010712.3	Fos	ENSRNOG00 000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
D04	UPFR1038136	ENSRNOT00000 012523.3	Galr2	ENSRNOG00 000061733	galanin receptor type 2 Source RGD Symbol Acc 9251670
D05	UPFR1083301	ENSRNOT00000 083601.1	Gcgr	ENSRNOG00 000036692	glucagon receptor Source RGD Symbol Acc 2669
D06	UPFR1038249	ENSRNOT00000 019174.5	Gnaq	ENSRNOG00 000014183	G protein subunit alpha q Source RGD Symbol Acc 620770
D07	UPFR1114383	ENSRNOT00000 071215.2	Gnas	ENSRNOG00 000047374	GNAS complex locus Source NCBI gene Acc 24896
D08	UPFR1030956	ENSRNOT00000 044325.3	Grm1	ENSRNOG00 000014290	glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742
D09	UPFR1059414	ENSRNOT00000 017607.3	Grm2	ENSRNOG00 000013171	glutamate metabotropic receptor 2 Source RGD Symbol Acc 2743
D10	UPFR1013959	ENSRNOT00000 093633.1	Grm4	ENSRNOG00 000000487	glutamate metabotropic receptor 4 Source RGD Symbol Acc 2745
D11	UPFR1073288	ENSRNOT00000 050639.2	Grm5	ENSRNOG00 000016429	glutamate metabotropic receptor 5 Source RGD Symbol Acc 2746
D12	UPFR1112528	ENSRNOT00000 056570.3	Grm7	ENSRNOG00 000005662	glutamate metabotropic receptor 7 Source RGD Symbol Acc 619857
E01	UPFR1031281	ENSRNOT00000 028066.5	Icam1	ENSRNOG00 000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
E02	UPFR1121351	ENSRNOT00000 006308.4	Il1b	ENSRNOG00 000004649	interleukin 1 beta Source RGD Symbol Acc 2891
E03	UPFR1025024	ENSRNOT00000 082146.1	Il1r1	ENSRNOG00 000014504	interleukin 1 receptor type 1 Source RGD Symbol Acc 2892
E04	UPFR1058134	ENSRNOT00000 019415.5	Il1r2	ENSRNOG00 000014378	interleukin 1 receptor type 2 Source RGD Symbol Acc 621147
E05	UPFR1070791	ENSRNOT00000 023327.2	Il2	ENSRNOG00 000017348	interleukin 2 Source RGD Symbol Acc 620047
E06	UPFR1037970	ENSRNOT00000 011731.3	Jun	ENSRNOG00 000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
E07	UPFR1102181	ENSRNOT00000 067780.3	Junb	ENSRNOG00 000042838	JunB proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2944
E08	UPFR1013403	ENSRNOT00000 087331.1	Kcnh8	ENSRNOG00 000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
E09	UPFR1053801	ENSRNOT00000 022481.7	Lhcgr	ENSRNOG00 000016712	luteinizing hormone/choriogonadotropin receptor Source RGD Symbol Acc 3007
E10	UPFR1048335	ENSRNOT00000 044348.2	Lpar1	ENSRNOG00 000013656	lysophosphatidic acid receptor 1 Source RGD Symbol Acc 620563
E11	UPFR1092567	ENSRNOT00000 083537.1	Lpar2	ENSRNOG00 000010758	lysophosphatidic acid receptor 2 Source RGD Symbol Acc 1561336
E12	UPFR1112291	ENSRNOT00000 010954.5	Max	ENSRNOG00 000008049	MYC associated factor X Source RGD Symbol Acc 621101
F01	UPFR1032957	ENSRNOT00000 023965.3	Mmp9	ENSRNOG00 000017539	matrix metalloproteinase 9 Source RGD Symbol Acc 621320
F02	UPFR1101439	ENSRNOT00000 006188.5	Myc	ENSRNOG00 000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
F03	UPFR1092405	ENSRNOT00000 016133.6	Nos2	ENSRNOG00 000057443	similar to Nitric oxide synthase, inducible (NOS type II) (Inducible NO synthase) (Inducible NOS) (iNOS) Source RGD Symbol Acc 1598227
F04	UPFR1034601	ENSRNOT00000 014084.3	Oprd1	ENSRNOG00 000010531	opioid receptor, delta 1 Source RGD Symbol Acc 3233
F05	UPFR1047533	ENSRNOT00000 010254.3	Oprk1	ENSRNOG00 000007647	opioid receptor, kappa 1 Source RGD Symbol Acc 69426
F06	UPFR1093188	ENSRNOT00000 067660.1	Pdpk1	ENSRNOG00 000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
F07	UPFR1091290	ENSRNOT00000 012487.5	Pik3cg	ENSRNOG00 000009385	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma Source RGD Symbol Acc 1306468
F08	UPFR1034906	ENSRNOT00000 004699.8	Prkca	ENSRNOG00 000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F09	UPFR1035449	ENSRNOT00000 003567.4	Ptgs2	ENSRNOG00 000002525	prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349
F10	UPFR1110002	ENSRNOT00000 028435.4	Pth1r	ENSRNOG00 000020948	parathyroid hormone 1 receptor Source RGD Symbol Acc 3442

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1098819	ENSRNOT00000005156.6	Rgs2	ENSRNOG0000003687	regulator of G-protein signaling 2 Source RGD Symbol Acc 621665
F12	UPFR1029425	ENSRNOT00000064603.1	Rho	ENSRNOG0000011144	rhodopsin Source RGD Symbol Acc 3573
G01	UPFR1049908	ENSRNOT00000018318.3	S1pr1	ENSRNOG0000013683	sphingosine-1-phosphate receptor 1 Source RGD Symbol Acc 61958
G02	UPFR1045892	ENSRNOT00000028034.4	S1pr2	ENSRNOG0000020653	sphingosine-1-phosphate receptor 2 Source RGD Symbol Acc 68334
G03	UPFR1107844	ENSRNOT00000019473.3	S1pr3	ENSRNOG0000014524	sphingosine-1-phosphate receptor 3 Source RGD Symbol Acc 1583843
G04	UPFR1069326	ENSRNOT00000072088.2	Scnr	ENSRNOG0000049766	secretin receptor Source RGD Symbol Acc 621342
G05	UPFR1051798	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G06	UPFR1106307	ENSRNOT00000003458.3	Socs1	ENSRNOG0000002568	suppressor of cytokine signaling 1 Source RGD Symbol Acc 69272
G07	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G08	UPFR1103540	ENSRNOT00000005671.4	Tshr	ENSRNOG0000003972	thyroid stimulating hormone receptor Source RGD Symbol Acc 3911
G09	UPFR1121701	ENSRNOT00000004900.4	Ucp1	ENSRNOG0000003580	uncoupling protein 1 Source RGD Symbol Acc 3931
G10	UPFR1101375	ENSRNOT00000019377.5	Vcam1	ENSRNOG0000014333	vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952
G11	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G12	UPFR1099982	ENSRNOT00000080676.1	Ywhaz	ENSRNOG0000008195	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta Source RGD Symbol Acc 3980
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.