

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

## Rat GPCR Signaling PathwayFinder

Cat. no. 249950 SBRN-071ZA

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

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

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA PCR System 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>	Adcy5	Adora2a	Adrb1	Adrb2	Agf	Agtr1b	Agtr2	Agtrap	Akt1	Arrb1	Arrb2	AABR0705842 2.1
<b>B</b>	Bcl2	Bcl2l1	Calcr	Calcr1	Casr	Ccl2	Ccl4	Ccnd1	Ccne1	Ccne2	Cdkn1a	Cdkn1b
<b>C</b>	Cflar	Colla1	Crhr1	Crhr2	Ccn2	Cyp19a1	Drd1	Drd2	Dusp14	Edn1	Egr1	Elk1
<b>D</b>	Elk4	Fgf2	Fos	Gatr2	Gcgr	Gnaq	Gnas	Grm1	Grm2	Grm4	Grm5	Grm7
<b>E</b>	Icam1	Il1b	Il1r1	Il1r2	Il2	Jun	Junb	Kcnh8	Lhcgr	Lpar1	Lpar2	Max
<b>F</b>	Mmp9	Myc	Nos2	Oprd1	Oprk1	Pdjk1	Pik3cg	Prkca	Ptgs2	Pth1r	Rgs2	Rho
<b>G</b>	S1pr1	S1pr2	S1pr3	Sctr	Serpine1	Socs1	LOC1036943 80	Tshr	Ucp1	Vcam1	Vegfa	Ywhaz
<b>H</b>	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBR1203771	ENSRNOT00000049180.2	Adcy5	ENSRNOG0000002229	adenylate cyclase 5 Source RGD Symbol Acc 71014
A02	SBR1138696	ENSRNOT00000001759.3	Adora2a	ENSRNOG0000001302	adenosine A2a receptor Source RGD Symbol Acc 2049
A03	SBR1141749	ENSRNOT00000022813.2	Adrb1	ENSRNOG0000017002	adrenoceptor beta 1 Source RGD Symbol Acc 2059
A04	SBR1208091	ENSRNOT00000026098.3	Adrb2	ENSRNOG0000019217	adrenoceptor beta 2 Source RGD Symbol Acc 2060
A05	SBR1195605	ENSRNOT00000024917.4	Agt	ENSRNOG0000018445	angiotensinogen Source RGD Symbol Acc 2069
A06	SBR1131175	ENSRNOT00000014178.4	Agtr1b	ENSRNOG0000010640	angiotensin II receptor, type 1b Source RGD Symbol Acc 2071
A07	SBR1169523	ENSRNOT00000074269.1	Agtr2	ENSRNOG0000050006	angiotensin II receptor, type 2 Source RGD Symbol Acc 2072
A08	SBR1143212	ENSRNOT00000011747.6	Agtrap	ENSRNOG0000008619	angiotensin II receptor-associated protein Source RGD Symbol Acc 1359346
A09	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A10	SBR1174142	ENSRNOT00000043554.4	Arrb1	ENSRNOG0000030404	arrestin, beta 1 Source RGD Symbol Acc 2156
A11	SBR1107056	ENSRNOT00000026207.7	Arrb2	ENSRNOG0000019308	arrestin, beta 2 Source RGD Symbol Acc 2157
A12	SBR1140819	ENSRNOT00000076127.2	AABR07058422.1	ENSRNOG0000029450	
B01	SBR1170984	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
B02	SBR1205791	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
B03	SBR1164468	ENSRNOT00000013937.5	Calcr	ENSRNOG0000010053	calcitonin receptor Source RGD Symbol Acc 621001
B04	SBR1166331	ENSRNOT000000088170.1	Calcr1	ENSRNOG0000054695	calcitonin receptor like receptor Source RGD Symbol Acc 2255
B05	SBR1211879	ENSRNOT00000078341.1	Casr	ENSRNOG0000002265	calcium-sensing receptor Source RGD Symbol Acc 2277
B06	SBR1165601	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
B07	SBR1202700	ENSRNOT00000015199.3	Ccl4	ENSRNOG0000011406	C-C motif chemokine ligand 4 Source RGD Symbol Acc 620441
B08	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
B09	SBR1171340	ENSRNOT00000020014.4	Ccne1	ENSRNOG0000014786	cyclin E1 Source RGD Symbol Acc 2294
B10	SBR1169544	ENSRNOT00000010696.5	Ccne2	ENSRNOG0000008055	cyclin E2 Source RGD Symbol Acc 1307783
B11	SBR1145142	ENSRNOT000000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B12	SBR1124365	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
C01	SBR1105415	ENSRNOT00000016730.5	Cflar	ENSRNOG0000012473	CASP8 and FADD-like apoptosis regulator Source RGD Symbol Acc 620847
C02	SBR1113220	ENSRNOT00000005311.6	Col1a1	ENSRNOG0000003897	collagen type I alpha 1 chain Source RGD Symbol Acc 61817
C03	SBR1200775	ENSRNOT00000006764.7	Crhr1	ENSRNOG0000004900	corticotropin releasing hormone receptor 1 Source RGD Symbol Acc 61276
C04	SBR1199401	ENSRNOT00000014925.5	Crhr2	ENSRNOG0000011145	corticotropin releasing hormone receptor 2 Source RGD Symbol Acc 70547
C05	SBR1133606	ENSRNOT00000089196.1	Ccn2	ENSRNOG0000015036	cellular communication network factor 2 Source RGD Symbol Acc 621392
C06	SBR1101306	ENSRNOT00000000212.7	Cyp19a1	ENSRNOG0000000196	cytochrome P450, family 19, subfamily a, polypeptide 1 Source RGD Symbol Acc 2457
C07	SBR1169120	ENSRNOT00000030893.3	Drd1	ENSRNOG0000023688	dopamine receptor D1 Source RGD Symbol Acc 2518
C08	SBR1132727	ENSRNOT00000083419.1	Drd2	ENSRNOG0000008428	dopamine receptor D2 Source RGD Symbol Acc 2520
C09	SBR1132043	ENSRNOT00000043148.6	Dusp14	ENSRNOG0000030091	dual specificity phosphatase 14 Source RGD Symbol Acc 1307415
C10	SBR1168689	ENSRNOT00000019361.2	Edn1	ENSRNOG0000014361	endothelin 1 Source RGD Symbol Acc 2532
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1216566	026303.4	Egr1	000019422	early growth response 1 Source RGD Symbol Acc 2544
C12	SBR1203710	ENSRNOT00000013522.5	Elk1	ENSRNOG0000010171	ELK1, ETS transcription factor Source RGD Symbol Acc 1598663
D01	SBR1174630	ENSRNOT00000090233.1	Elk4	ENSRNOG0000007887	ELK4, ETS transcription factor Source RGD Symbol Acc 1310504
D02	SBR1185708	ENSRNOT00000023388.5	Fgf2	ENSRNOG0000017392	fibroblast growth factor 2 Source RGD Symbol Acc 2609
D03	SBR1110295	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
D04	SBR1137517	ENSRNOT00000075548.2	Galr2	ENSRNOG0000061733	galanin receptor type 2 Source RGD Symbol Acc 9251670
D05	SBR1141470	ENSRNOT00000054962.2	Gcgr	ENSRNOG0000036692	glucagon receptor Source RGD Symbol Acc 2669
D06	SBR1098296	ENSRNOT00000019174.5	Gnaq	ENSRNOG0000014183	G protein subunit alpha q Source RGD Symbol Acc 620770
D07	SBR1187187	ENSRNOT00000071215.2	Gnas	ENSRNOG0000047374	GNAS complex locus Source NCBI gene Acc 24896
D08	SBR1115900	ENSRNOT00000044325.3	Grm1	ENSRNOG0000014290	glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742
D09	SBR1165238	ENSRNOT00000017607.3	Grm2	ENSRNOG0000013171	glutamate metabotropic receptor 2 Source RGD Symbol Acc 2743
D10	SBR1182094	ENSRNOT00000066115.3	Grm4	ENSRNOG0000000487	glutamate metabotropic receptor 4 Source RGD Symbol Acc 2745
D11	SBR1162445	ENSRNOT00000050639.2	Grm5	ENSRNOG0000016429	glutamate metabotropic receptor 5 Source RGD Symbol Acc 2746
D12	SBR1096823	ENSRNOT00000056570.3	Grm7	ENSRNOG0000005662	glutamate metabotropic receptor 7 Source RGD Symbol Acc 619857
E01	SBR1152534	ENSRNOT00000028066.5	Icam1	ENSRNOG0000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
E02	SBR1196387	ENSRNOT00000006308.4	Il1b	ENSRNOG0000004649	interleukin 1 beta Source RGD Symbol Acc 2891
E03	SBR1113457	ENSRNOT00000019673.4	Il1r1	ENSRNOG0000014504	interleukin 1 receptor type 1 Source RGD Symbol Acc 2892
E04	SBR1130335	ENSRNOT00000019415.5	Il1r2	ENSRNOG0000014378	interleukin 1 receptor type 2 Source RGD Symbol Acc 621147
E05	SBR1102170	ENSRNOT00000023327.2	Il2	ENSRNOG0000017348	interleukin 2 Source RGD Symbol Acc 620047
E06	SBR1133226	ENSRNOT00000011731.3	Jun	ENSRNOG0000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
E07	SBR1195750	ENSRNOT00000067780.3	Junb	ENSRNOG0000042838	JunB proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2944
E08	SBR1149643	ENSRNOT00000087331.1	Kcnh8	ENSRNOG0000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
E09	SBR1138702	ENSRNOT00000022481.7	Lhcgr	ENSRNOG0000016712	luteinizing hormone/choriogonadotropin receptor Source RGD Symbol Acc 3007
E10	SBR1122662	ENSRNOT00000044348.2	Lpar1	ENSRNOG0000013656	lysophosphatidic acid receptor 1 Source RGD Symbol Acc 620563
E11	SBR1154279	ENSRNOT00000068554.2	Lpar2	ENSRNOG0000010758	lysophosphatidic acid receptor 2 Source RGD Symbol Acc 1561336
E12	SBR1118916	ENSRNOT00000010954.5	Max	ENSRNOG0000008049	MYC associated factor X Source RGD Symbol Acc 621101
F01	SBR1206750	ENSRNOT00000023965.3	Mmp9	ENSRNOG0000017539	matrix metalloproteinase 9 Source RGD Symbol Acc 621320
F02	SBR1106364	ENSRNOT00000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
F03	SBR1197401	ENSRNOT00000073138.2	Nos2	ENSRNOG0000057443	similar to Nitric oxide synthase, inducible (NOS type II) (Inducible NO synthase) (Inducible NOS) (iNOS) Source RGD Symbol Acc 1598227
F04	SBR1146582	ENSRNOT00000014084.3	Oprd1	ENSRNOG0000010531	opioid receptor, delta 1 Source RGD Symbol Acc 3233
F05	SBR1105261	ENSRNOT00000010254.3	Oprk1	ENSRNOG0000007647	opioid receptor, kappa 1 Source RGD Symbol Acc 69426
F06	SBR1133385	ENSRNOT00000067660.1	Pdpk1	ENSRNOG0000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
F07	SBR1140914	ENSRNOT00000012487.5	Pik3cg	ENSRNOG0000009385	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma Source RGD Symbol Acc 1306468
F08	SBR1097570	ENSRNOT00000055073.4	Prkca	ENSRNOG0000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F09	SBR1122148	ENSRNOT00000003567.4	Ptgs2	ENSRNOG0000002525	prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349
F10	SBR1184241	ENSRNOT00000028435.4	PTH1r	ENSRNOG0000020948	parathyroid hormone 1 receptor Source RGD Symbol Acc 3442

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1199490	ENSRNOT00000005156.6	Rgs2	ENSRNOG0000003687	regulator of G-protein signaling 2 Source RGD Symbol Acc 621665
F12	SBR1110309	ENSRNOT00000064603.1	Rho	ENSRNOG0000011144	rhodopsin Source RGD Symbol Acc 3573
G01	SBR1147227	ENSRNOT00000018318.3	S1pr1	ENSRNOG0000013683	sphingosine-1-phosphate receptor 1 Source RGD Symbol Acc 61958
G02	SBR1201599	ENSRNOT00000028034.4	S1pr2	ENSRNOG0000020653	sphingosine-1-phosphate receptor 2 Source RGD Symbol Acc 68334
G03	SBR1210951	ENSRNOT00000019473.3	S1pr3	ENSRNOG0000014524	sphingosine-1-phosphate receptor 3 Source RGD Symbol Acc 1583843
G04	SBR1100044	ENSRNOT00000072088.2	Scnr	ENSRNOG0000049766	secretin receptor Source RGD Symbol Acc 621342
G05	SBR1126485	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G06	SBR1119822	ENSRNOT00000003458.3	Socs1	ENSRNOG0000002568	suppressor of cytokine signaling 1 Source RGD Symbol Acc 69272
G07	SBR1187845	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G08	SBR1152664	ENSRNOT00000005671.4	Tshr	ENSRNOG0000003972	thyroid stimulating hormone receptor Source RGD Symbol Acc 3911
G09	SBR1129529	ENSRNOT00000004900.4	Ucp1	ENSRNOG0000003580	uncoupling protein 1 Source RGD Symbol Acc 3931
G10	SBR1189462	ENSRNOT00000077972.1	Vcam1	ENSRNOG0000014333	vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952
G11	SBR1108862	ENSRNOT00000044163.4	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G12	SBR1172173	ENSRNOT00000080676.1	Ywhaz	ENSRNOG0000008195	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta Source RGD Symbol Acc 3980
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	SBR1218555	Sybr_RGDC	RGDC	Sybr_RGDC	Rat Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208052

\*Larger kit sizes available.

The QuantiNova LNA 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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