

# QuantiNova® LNA® PCR Focus Panels (Rotor-Gene® Format)

## Rat WNT Signaling Targets

Cat. no. 249950 SBRN-243ZR

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 (Rotor-Gene): QuantiNova LNA PCR Focus Panel

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc® (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance. 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
A	Abcb1a	Ahr	Angptl4	Anhr1	Axin2	Bglap	Birc5	Bmp4	Btrc	Cacna2d3	Ccnd1	Ccnd2
B	Cd44	Cdh1	Cdkn2a	Cdon	Cebpd	Ccn2	Cubn	Dab2	Dkk1	Dlk1	Dpp10	Efnb1
C	Egfr	Egr1	Enpp2	Ets2	Fgf20	Fgf4	Fgf7	Fgf9	Fn1	Fosl1	Fst	Gdf5
D	Gdnf	Gja1	Id2	Igf1	Igf2	Il6	Irs1	Jag1	Klf5	Lef1	Lrp1	Met
E	Mmp2	Mmp7	Mmp9	Myc	Nanog	Nrcam	Nrp1	Ntrk2	Pdgfra	Ptx2	Plaur	Pou5f1
F	Ppp3	Ppard	Ptch1	Ptgs2	Runx2	Sfrp2	Six1	Smo	Sox2	Sox9	Tbxt	Tcf7l1
G	Tcf4	Tcf7	Tcf7l2	Tgfb3	Tle1	Twist1	Vegfa	Ccn4	Ccn5	Wnt3a	Wnt5a	Wnt9a
H	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	SBR1116067	ENSRNOT00000082359.1	Abcb1a	ENSRNOG0000008012	ATP binding cassette subfamily B member 4 Source RGD Symbol Acc 620248
A02	SBR1103616	ENSRNOT00000006618.7	Ahr	ENSRNOG0000004342	aryl hydrocarbon receptor Source RGD Symbol Acc 2074
A03	SBR1186322	ENSRNOT00000010031.6	Angptl4	ENSRNOG0000007545	angiopoietin-like 4 Source RGD Symbol Acc 735058
A04	SBR1195063	ENSRNOT00000011675.4	Antxr1	ENSRNOG0000008678	ANTXR cell adhesion molecule 1 Source RGD Symbol Acc 1307144
A05	SBR1121880	ENSRNOT00000088599.1	Axin2	ENSRNOG0000055010	axin 2 Source RGD Symbol Acc 69259
A06	SBR1199255	ENSRNOT00000026530.3	Bglap	ENSRNOG0000019607	bone gamma-carboxylglutamate protein Source RGD Symbol Acc 2206
A07	SBR1130503	ENSRNOT00000072387.1	Birc5	ENSRNOG0000050819	baculoviral IAP repeat-containing 5 Source RGD Symbol Acc 70499
A08	SBR1132271	ENSRNOT00000012957.6	Bmp4	ENSRNOG0000009694	bone morphogenetic protein 4 Source RGD Symbol Acc 2213
A09	SBR1214609	ENSRNOT00000022426.7	Btrc	ENSRNOG0000016280	beta-transducin repeat containing E3 ubiquitin protein ligase Source RGD Symbol Acc 1359721
A10	SBR1142711	ENSRNOT00000048043.3	Cacna2d3	ENSRNOG0000031287	calcium voltage-gated channel auxiliary subunit alpha2delta 3 Source RGD Symbol Acc 631361
A11	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A12	SBR1095869	ENSRNOT00000086440.1	Ccnd2	ENSRNOG0000057710	cyclin D2 Source RGD Symbol Acc 621083
B01	SBR1148883	ENSRNOT00000009000.7	Cd44	ENSRNOG0000006094	CD44 molecule (Indian blood group) Source RGD Symbol Acc 2307
B02	SBR1170192	ENSRNOT00000027346.2	Cdh1	ENSRNOG0000020151	cadherin 1 Source RGD Symbol Acc 69279
B03	SBR1138605	ENSRNOT00000084293.1	Cdkn2a	ENSRNOG0000059837	cyclin-dependent kinase inhibitor 2A Source RGD Symbol Acc 2323
B04	SBR1140227	ENSRNOT00000016248.4	Cdon	ENSRNOG0000011789	cell adhesion associated, oncogene regulated Source RGD Symbol Acc 708433
B05	SBR1129981	ENSRNOT00000074586.2	Cebpd	ENSRNOG0000050869	CCAAT/enhancer binding protein delta Source RGD Symbol Acc 2328
B06	SBR1133606	ENSRNOT00000089196.1	Ccn2	ENSRNOG0000015036	cellular communication network factor 2 Source RGD Symbol Acc 621392
B07	SBR1096556	ENSRNOT00000040052.4	Cubn	ENSRNOG0000029047	cubilin Source RGD Symbol Acc 68355
B08	SBR1170520	ENSRNOT00000050655.5	Dab2	ENSRNOG0000028930	DAB2, clathrin adaptor protein Source RGD Symbol Acc 621007
B09	SBR1171972	ENSRNOT00000015771.7	Dkk1	ENSRNOG0000011692	dickkopf WNT signaling pathway inhibitor 1 Source RGD Symbol Acc 1307313
B10	SBR1102845	ENSRNOT00000006339.6	Dlk1	ENSRNOG0000019584	delta like non-canonical Notch ligand 1 Source RGD Symbol Acc 619931
B11	SBR1178038	ENSRNOT00000003527.5	Dpp10	ENSRNOG0000002595	dipeptidylpeptidase 10 Source RGD Symbol Acc 1306427
B12	SBR1138402	ENSRNOT00000009635.6	Efnb1	ENSRNOG0000006877	ephrin B1 Source RGD Symbol Acc 2540
C01	SBR1196436	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
C02	SBR1216566	ENSRNOT00000026303.4	Egr1	ENSRNOG0000019422	early growth response 1 Source RGD Symbol Acc 2544
C03	SBR1165819	ENSRNOT00000051139.5	Enpp2	ENSRNOG0000004089	ectonucleotide pyrophosphatase/phosphodiesterase 2 Source RGD Symbol Acc 69298
C04	SBR1209269	ENSRNOT00000002247.6	Ets2	ENSRNOG0000001647	ETS proto-oncogene 2, transcription factor Source RGD Symbol Acc 1584977
C05	SBR1139753	ENSRNOT00000000121.2	Fgf20	ENSRNOG0000000109	fibroblast growth factor 20 Source RGD Symbol Acc 71068
C06	SBR1161582	ENSRNOT00000028355.5	Fgf4	ENSRNOG0000020890	fibroblast growth factor 4 Source RGD Symbol Acc 620127
C07	SBR1128388	ENSRNOT00000012700.4	Fgf7	ENSRNOG0000009425	fibroblast growth factor 7 Source RGD Symbol Acc 61805
C08	SBR1156754	ENSRNOT00000015367.5	Fgf9	ENSRNOG0000011471	fibroblast growth factor 9 Source RGD Symbol Acc 2610
C09	SBR1178912	ENSRNOT00000019772.6	Fn1	ENSRNOG0000014288	fibronectin 1 Source RGD Symbol Acc 2624
C10	SBR1182363	ENSRNOT00000027891.2	Fosl1	ENSRNOG0000020552	FOS like 1, AP-1 transcription factor subunit Source RGD Symbol Acc 2627
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1138330	015680.4	Fst	000011631	follistatin Source RGD Symbol Acc 2633
C12	SBR1201122	ENSRNOT00000 071099.1	Gdf5	ENSRNOG00 000050123	growth differentiation factor 5 Source RGD Symbol Acc 620102
D01	SBR1188150	ENSRNOT00000 041288.2	Gdnf	ENSRNOG00 000012819	glial cell derived neurotrophic factor Source RGD Symbol Acc 2677
D02	SBR1181138	ENSRNOT00000 001054.4	Gja1	ENSRNOG00 000000805	gap junction protein, alpha 1 Source RGD Symbol Acc 2690
D03	SBR1195349	ENSRNOT00000 009491.6	Id2	ENSRNOG00 000007237	inhibitor of DNA binding 2 Source RGD Symbol Acc 2859
D04	SBR1185495	ENSRNOT00000 038780.6	Igf1	ENSRNOG00 000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
D05	SBR1106101	ENSRNOT00000 050760.3	Igf2	ENSRNOG00 000020369	insulin-like growth factor 2 Source RGD Symbol Acc 2870
D06	SBR1156877	ENSRNOT00000 013732.6	Il6	ENSRNOG00 000010278	interleukin 6 Source RGD Symbol Acc 2901
D07	SBR1132302	ENSRNOT00000 019579.5	Irs1	ENSRNOG00 000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D08	SBR1173778	ENSRNOT00000 010638.7	Jag1	ENSRNOG00 000007443	jagged 1 Source RGD Symbol Acc 2937
D09	SBR1095677	ENSRNOT00000 090637.1	Klf5	ENSRNOG00 000008785	Kruppel-like factor 5 Source RGD Symbol Acc 621446
D10	SBR1100877	ENSRNOT00000 013694.3	Lef1	ENSRNOG00 000010121	lymphoid enhancer binding factor 1 Source RGD Symbol Acc 620241
D11	SBR1203456	ENSRNOT00000 031005.5	Lrp1	ENSRNOG00 000025053	LDL receptor related protein 1 Source RGD Symbol Acc 1307535
D12	SBR1107950	ENSRNOT00000 086902.1	Met	ENSRNOG00 000052745	MET proto-oncogene, receptor tyrosine kinase Source RGD Symbol Acc 3082
E01	SBR1120605	ENSRNOT00000 022679.6	Mmp2	ENSRNOG00 000016695	matrix metalloproteinase 2 Source RGD Symbol Acc 621316
E02	SBR1116320	ENSRNOT00000 014041.5	Mmp7	ENSRNOG00 000010507	matrix metalloproteinase 7 Source RGD Symbol Acc 3100
E03	SBR1206750	ENSRNOT00000 023965.3	Mmp9	ENSRNOG00 000017539	matrix metalloproteinase 9 Source RGD Symbol Acc 621320
E04	SBR1106364	ENSRNOT00000 006188.5	Myc	ENSRNOG00 000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
E05	SBR1194871	ENSRNOT00000 060937.3	Nanog	ENSRNOG00 000008368	Nanog homeobox Source RGD Symbol Acc 1303178
E06	SBR1138548	ENSRNOT00000 050222.7	Nrcam	ENSRNOG00 000004067	neuronal cell adhesion molecule Source RGD Symbol Acc 3209
E07	SBR1157725	ENSRNOT00000 014492.5	Nrp1	ENSRNOG00 000010744	neuropilin 1 Source RGD Symbol Acc 621588
E08	SBR1097948	ENSRNOT00000 090914.1	Ntrk2	ENSRNOG00 000018839	neurotrophic receptor tyrosine kinase 2 Source RGD Symbol Acc 3213
E09	SBR1195557	ENSRNOT00000 003077.5	Pdgfra	ENSRNOG00 000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E10	SBR1186889	ENSRNOT00000 051009.4	Pitx2	ENSRNOG00 000010681	paired-like homeodomain 2 Source RGD Symbol Acc 3331
E11	SBR1209735	ENSRNOT00000 075167.3	Plaur	ENSRNOG00 000037931	plasminogen activator, urokinase receptor Source RGD Symbol Acc 620597
E12	SBR1115832	ENSRNOT00000 072288.2	Pou5f1	ENSRNOG00 000046487	POU class 5 homeobox 1 Source RGD Symbol Acc 1359491
F01	SBR1163344	ENSRNOT00000 011237.5	Plpp3	ENSRNOG00 000008116	phospholipid phosphatase 3 Source RGD Symbol Acc 620454
F02	SBR1197924	ENSRNOT00000 083109.1	Ppard	ENSRNOG00 000000503	peroxisome proliferator-activated receptor delta Source RGD Symbol Acc 3370
F03	SBR1146307	ENSRNOT00000 026287.5	Ptch1	ENSRNOG00 000019354	patched 1 Source RGD Symbol Acc 621425
F04	SBR1122148	ENSRNOT00000 003567.4	Ptgs2	ENSRNOG00 000002525	prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349
F05	SBR1103643	ENSRNOT00000 061014.4	Runx2	ENSRNOG00 000020193	runt-related transcription factor 2 Source RGD Symbol Acc 2282
F06	SBR1157148	ENSRNOT00000 012658.6	Sfrp2	ENSRNOG00 000009465	secreted frizzled-related protein 2 Source RGD Symbol Acc 735163
F07	SBR1147242	ENSRNOT00000 034338.4	Six1	ENSRNOG00 000022777	SIX homeobox 1 Source RGD Symbol Acc 620906
F08	SBR1198492	ENSRNOT00000 080223.1	Smo	ENSRNOG00 000008332	smoothed, frizzled class receptor Source RGD Symbol Acc 3726
F09	SBR1125680	ENSRNOT00000 016236.3	Sox2	ENSRNOG00 000012199	SRY box 2 Source RGD Symbol Acc 1565646
F10	SBR1186301	ENSRNOT00000 003511.6	Sox9	ENSRNOG00 000002607	SRY box 9 Source RGD Symbol Acc 620474

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1165283	ENSRNOT00000016471.3	Tbxt	ENSRNOG0000012229	T-box transcription factor T Source RGD Symbol Acc 1310141
F12	SBR1154852	ENSRNOT00000020005.7	Tcf711	ENSRNOG0000014753	transcription factor 7 like 1 Source RGD Symbol Acc 1311671
G01	SBR1134900	ENSRNOT00000081797.1	Tcf4	ENSRNOG0000012405	transcription factor 4 Source RGD Symbol Acc 69271
G02	SBR1172406	ENSRNOT00000008022.7	Tcf7	ENSRNOG0000005872	transcription factor 7 Source RGD Symbol Acc 1305894
G03	SBR1184563	ENSRNOT00000019681.6	Tcf712	ENSRNOG0000049232	transcription factor 7 like 2 Source RGD Symbol Acc 1583621
G04	SBR1115193	ENSRNOT00000013516.5	Tgfb3	ENSRNOG0000009867	transforming growth factor, beta 3 Source RGD Symbol Acc 3851
G05	SBR1149395	ENSRNOT00000058906.3	Tle1	ENSRNOG0000005882	TLE family member 1, transcriptional corepressor Source RGD Symbol Acc 1309237
G06	SBR1200999	ENSRNOT00000014763.6	Twist1	ENSRNOG0000011101	twist family bHLH transcription factor 1 Source RGD Symbol Acc 621455
G07	SBR1108862	ENSRNOT00000044163.4	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G08	SBR1172041	ENSRNOT00000009673.7	Ccn4	ENSRNOG0000007078	cellular communication network factor 4 Source RGD Symbol Acc 69431
G09	SBR1169669	ENSRNOT00000014346.6	Ccn5	ENSRNOG0000010666	cellular communication network factor 5 Source RGD Symbol Acc 621867
G10	SBR1178408	ENSRNOT00000064505.3	Wnt3a	ENSRNOG0000003039	Wnt family member 3A Source RGD Symbol Acc 1308057
G11	SBR1212833	ENSRNOT00000021164.3	Wnt5a	ENSRNOG0000015618	Wnt family member 5A Source RGD Symbol Acc 69250
G12	SBR1108175	ENSRNOT00000058327.3	Wnt9a	ENSRNOG0000003066	Wnt family member 9A Source RGD Symbol Acc 1305018
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG00000034254	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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