

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

## Rat Gap Junctions

Cat. no. 249950 SBRN-144ZR

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
<b>A</b>	Adcy1	Adcy2	Adcy3	Adcy4	Adrb2	Cav1	Cdk1	Csnk1d	Clnnb1	Ddn1	Egfr	Gja1
<b>B</b>	Gja10	Gja3	Gja4	Gja5	Gjc1	Gja8	Gjb1	Gjb2	Gjb3	Gjb4	Gjb5	Gjb6
<b>C</b>	Gjc2	Gjc3	Gjd2	Gnai1	Grb2	Grm1	Gucy1a2	Gucy1a1	Gucy1b1	Hras	Htr2a	Ilpr1
<b>D</b>	Ilpr2	Kras	Lpar1	Map2k1	Map2k2	Map2k5	Map3k2	Mapk1	Mapk3	LOC1009125 85	Ccn3	Nras
<b>E</b>	Panx1	Panx2	Panx3	Pdgfra	Pdgfrb	Plcb1	Plcb2	Plcb3	Plcb4	Prkaca	Prkacb	Prkca
<b>F</b>	Prkcb	Prkcg	AABR0700672 7.1	Prkg2	Raf1	Sos1	Sos2	Src	Tjp1	Tjp1	Tjp2	Tuba1a
<b>G</b>	LOC1009094 41	Tuba3b	Tuba4a	Tubb2b	Tubb4b	Tubb3	Tubb4a	Tubb5	Tubb6	Tubd1	Tube1	Tubg1
<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	SBR1211599	ENSRNOT00000088032.1	Adcy1	ENSRNOG0000059479	adenylate cyclase 1 Source RGD Symbol Acc 1309318
A02	SBR1155204	ENSRNOT00000047627.3	Adcy2	ENSRNOG0000032150	adenylate cyclase 2 Source RGD Symbol Acc 619965
A03	SBR1123709	ENSRNOT00000005389.6	Adcy3	ENSRNOG0000003999	adenylate cyclase 3 Source RGD Symbol Acc 71009
A04	SBR1131109	ENSRNOT00000067536.2	Adcy4	ENSRNOG0000020401	adenylate cyclase 4 Source RGD Symbol Acc 2034
A05	SBR1208091	ENSRNOT00000026098.3	Adrb2	ENSRNOG0000019217	adrenoceptor beta 2 Source RGD Symbol Acc 2060
A06	SBR1108638	ENSRNOT00000078250.1	Cav1	ENSRNOG0000056836	caveolin 1 Source RGD Symbol Acc 2280
A07	SBR1169863	ENSRNOT00000081113.1	Cdk1	ENSRNOG0000000632	cyclin-dependent kinase 1 Source RGD Symbol Acc 2319
A08	SBR1112875	ENSRNOT00000054936.3	Csnk1d	ENSRNOG0000036676	casein kinase 1, delta Source RGD Symbol Acc 71031
A09	SBR1143136	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
A10	SBR1105409	ENSRNOT00000019393.4	Dbn1	ENSRNOG0000014170	drebrin 1 Source RGD Symbol Acc 70885
A11	SBR1196436	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
A12	SBR1181138	ENSRNOT00000001054.4	Gja1	ENSRNOG0000000805	gap junction protein, alpha 1 Source RGD Symbol Acc 2690
B01	SBR1108326	ENSRNOT00000008469.5	Gja10	ENSRNOG0000006478	gap junction protein, alpha 10 Source RGD Symbol Acc 1309630
B02	SBR1096725	ENSRNOT00000011699.4	Gja3	ENSRNOG0000008847	gap junction protein, alpha 3 Source RGD Symbol Acc 621820
B03	SBR1170304	ENSRNOT00000019246.5	Gja4	ENSRNOG0000014357	gap junction protein, alpha 4 Source RGD Symbol Acc 2691
B04	SBR1158584	ENSRNOT00000023488.6	Gja5	ENSRNOG0000017484	gap junction protein, alpha 5 Source RGD Symbol Acc 2692
B05	SBR1174993	ENSRNOT00000093570.1	Gjc1	ENSRNOG0000048838	gap junction protein, gamma 1 Source RGD Symbol Acc 628889
B06	SBR1174058	ENSRNOT00000071622.2	Gja8	ENSRNOG0000046703	gap junction protein, alpha 8 Source RGD Symbol Acc 628890
B07	SBR1173856	ENSRNOT00000076816.1	Gjb1	ENSRNOG0000003746	gap junction protein, beta 1 Source RGD Symbol Acc 61926
B08	SBR1144075	ENSRNOT00000011711.4	Gjb2	ENSRNOG0000008855	gap junction protein, beta 2 Source RGD Symbol Acc 728891
B09	SBR1209275	ENSRNOT00000019266.2	Gjb3	ENSRNOG0000014372	gap junction protein, beta 3 Source RGD Symbol Acc 2695
B10	SBR1145423	ENSRNOT00000037128.3	Gjb4	ENSRNOG0000026910	gap junction protein, beta 4 Source RGD Symbol Acc 621829
B11	SBR1180064	ENSRNOT00000081919.1	Gjb5	ENSRNOG0000059897	gap junction protein, beta 5 Source RGD Symbol Acc 2696
B12	SBR1124941	ENSRNOT00000011742.3	Gjb6	ENSRNOG0000022116	gap junction protein, beta 6 Source RGD Symbol Acc 621830
C01	SBR1190715	ENSRNOT00000058362.3	Gjc2	ENSRNOG0000038328	gap junction protein, gamma 2 Source RGD Symbol Acc 1562712
C02	SBR1206613	ENSRNOT00000001797.4	Gjc3	ENSRNOG0000001329	gap junction protein, gamma 3 Source RGD Symbol Acc 727930
C03	SBR1123448	ENSRNOT00000011078.3	Gjd2	ENSRNOG0000008337	gap junction protein, delta 2 Source RGD Symbol Acc 2694
C04	SBR1166173	ENSRNOT00000091004.1	Gnai1	ENSRNOG0000057096	G protein subunit alpha i1 Source RGD Symbol Acc 2713
C05	SBR1181692	ENSRNOT00000005347.5	Grb2	ENSRNOG0000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
C06	SBR1115900	ENSRNOT00000044325.3	Grm1	ENSRNOG0000014290	glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742
C07	SBR1207210	ENSRNOT00000046058.4	Gucy1a2	ENSRNOG0000029876	guanylate cyclase 1 soluble subunit alpha 2 Source RGD Symbol Acc 621655
C08	SBR1205788	ENSRNOT00000017190.4	Gucy1a1	ENSRNOG0000012302	guanylate cyclase 1 soluble subunit alpha 1 Source RGD Symbol Acc 68436
C09	SBR1165217	ENSRNOT00000064930.2	Gucy1b1	ENSRNOG0000012060	guanylate cyclase 1 soluble subunit beta 1 Source RGD Symbol Acc 2769
C10	SBR1204952	ENSRNOT00000079464.1	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1130221	013408.6	Htr2a	000010063	5-hydroxytryptamine receptor 2A Source RGD Symbol Acc 61800
C12	SBR1160599	ENSRNOT00000064025.3	Itpr1	ENSRNOG0000007104	inositol 1,4,5-trisphosphate receptor, type 1 Source RGD Symbol Acc 2933
D01	SBR1157296	ENSRNOT00000040645.5	Itpr2	ENSRNOG0000001804	inositol 1,4,5-trisphosphate receptor, type 2 Source RGD Symbol Acc 69649
D02	SBR1196578	ENSRNOT00000012588.4	Kras	ENSRNOG0000009338	KRAS proto-oncogene, GTPase Source RGD Symbol Acc 2981
D03	SBR1122662	ENSRNOT00000044348.2	Lpar1	ENSRNOG0000013656	lysophosphatidic acid receptor 1 Source RGD Symbol Acc 620563
D04	SBR1111011	ENSRNOT00000013933.6	Map2k1	ENSRNOG0000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
D05	SBR1144525	ENSRNOT00000027272.5	Map2k2	ENSRNOG0000020005	mitogen activated protein kinase kinase 2 Source RGD Symbol Acc 61888
D06	SBR1150347	ENSRNOT00000051558.4	Map2k5	ENSRNOG0000007926	mitogen activated protein kinase kinase 5 Source RGD Symbol Acc 61890
D07	SBR1190201	ENSRNOT00000060996.3	Map3k2	ENSRNOG0000014089	mitogen activated protein kinase kinase kinase 2 Source RGD Symbol Acc 620967
D08	SBR1202944	ENSRNOT00000002533.7	Mapk1	ENSRNOG0000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
D09	SBR1209281	ENSRNOT00000087625.1	Mapk3	ENSRNOG0000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
D10	SBR1125971	ENSRNOT00000057864.5	LOC100912585	ENSRNOG0000002412	mitogen-activated protein kinase 7-like Source RGD Symbol Acc 6486357
D11	SBR1191682	ENSRNOT00000011904.5	Ccn3	ENSRNOG0000008697	cellular communication network factor 3 Source RGD Symbol Acc 621553
D12	SBR1160671	ENSRNOT00000039572.3	Nras	ENSRNOG0000023079	NRAS proto-oncogene, GTPase Source RGD Symbol Acc 3205
E01	SBR1207970	ENSRNOT00000013577.5	Panx1	ENSRNOG0000010060	Pannexin 1 Source RGD Symbol Acc 735204
E02	SBR1168702	ENSRNOT00000089707.1	Panx2	ENSRNOG0000055530	pannexin 2 Source RGD Symbol Acc 735191
E03	SBR1180846	ENSRNOT00000042717.2	Panx3	ENSRNOG0000031675	pannexin 3 Source RGD Symbol Acc 735137
E04	SBR1195557	ENSRNOT00000003077.5	Pdgfra	ENSRNOG0000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E05	SBR1100630	ENSRNOT00000086033.1	Pdgfrb	ENSRNOG0000018461	platelet derived growth factor receptor beta Source RGD Symbol Acc 3285
E06	SBR1216499	ENSRNOT00000006389.6	Plcb1	ENSRNOG0000004810	phospholipase C beta 1 Source RGD Symbol Acc 3344
E07	SBR1127404	ENSRNOT00000078037.1	Plcb2	ENSRNOG0000058337	phospholipase C, beta 2 Source RGD Symbol Acc 621004
E08	SBR1202412	ENSRNOT00000028720.6	Plcb3	ENSRNOG0000021150	phospholipase C beta 3 Source RGD Symbol Acc 61993
E09	SBR1186218	ENSRNOT00000045393.4	Plcb4	ENSRNOG0000033119	phospholipase C, beta 4 Source RGD Symbol Acc 3345
E10	SBR1139916	ENSRNOT00000041717.4	Prkaca	ENSRNOG0000005257	protein kinase cAMP-activated catalytic subunit alpha Source RGD Symbol Acc 3389
E11	SBR1138043	ENSRNOT00000068739.1	Prkacb	ENSRNOG0000004978	protein kinase cAMP-activated catalytic subunit beta Source RGD Symbol Acc 1310574
E12	SBR1097570	ENSRNOT00000055073.4	Prkca	ENSRNOG0000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F01	SBR1121471	ENSRNOT00000016418.6	Prkcb	ENSRNOG0000012061	protein kinase C, beta Source RGD Symbol Acc 3396
F02	SBR1199108	ENSRNOT00000080032.1	Prkcg	ENSRNOG0000054371	protein kinase C, gamma Source RGD Symbol Acc 3397
F03	SBR1193564	ENSRNOT00000082874.1	AABR07006727.1	ENSRNOG0000052057	
F04	SBR1104530	ENSRNOT00000003237.4	Prkg2	ENSRNOG0000002361	protein kinase cGMP-dependent 2 Source RGD Symbol Acc 3401
F05	SBR1111289	ENSRNOT00000013831.6	Raf1	ENSRNOG0000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
F06	SBR1106511	ENSRNOT00000009359.7	Sos1	ENSRNOG0000007106	SOS Ras/Rac guanine nucleotide exchange factor 1 Source RGD Symbol Acc 1310949
F07	SBR1131279	ENSRNOT00000089891.1	Sos2	ENSRNOG0000004826	SOS Ras/Rho guanine nucleotide exchange factor 2 Source RGD Symbol Acc 620435
F08	SBR1192294	ENSRNOT00000012739.4	Src	ENSRNOG0000009495	SRC proto-oncogene, non-receptor tyrosine kinase Source RGD Symbol Acc 620795
F09	SBR1144881	ENSRNOT00000091113.1	Tjap1	ENSRNOG0000018980	tight junction associated protein 1 Source RGD Symbol Acc 1308708
F10	SBR1153932	ENSRNOT00000014988.7	Tjp1	ENSRNOG0000011077	tight junction protein 1 Source RGD Symbol Acc 1306305

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1160358	ENSRNOT00000065921.3	Tjp2	ENSRNOG0000015030	tight junction protein 2 Source RGD Symbol Acc 619807
F12	SBR1153181	ENSRNOT00000083156.1	Tuba1a	ENSRNOG0000060728	tubulin, alpha 1A Source RGD Symbol Acc 619717
G01	SBR1117111	ENSRNOT00000033450.3	LOC100909441	ENSRNOG0000021438	tubulin, alpha 1C Source RGD Symbol Acc 1307226
G02	SBR1099459	ENSRNOT00000044425.2	Tuba3b	ENSRNOG0000031707	tubulin, alpha 3B Source RGD Symbol Acc 1565155
G03	SBR1177522	ENSRNOT00000004797.5	Tuba4a	ENSRNOG000003597	tubulin, alpha 4A Source RGD Symbol Acc 1359623
G04	SBR1130985	ENSRNOT00000023582.4	Tubb2b	ENSRNOG0000017445	tubulin, beta 2B class IIb Source RGD Symbol Acc 1309427
G05	SBR1190821	ENSRNOT00000013863.5	Tubb4b	ENSRNOG0000010170	tubulin, beta 4B class IVb Source RGD Symbol Acc 735101
G06	SBR1115458	ENSRNOT00000023452.6	Tubb3	ENSRNOG0000017209	tubulin, beta 3 class III Source RGD Symbol Acc 628595
G07	SBR1119232	ENSRNOT00000075767.2	Tubb4a	ENSRNOG0000047505	tubulin, beta 4A class IVa Source RGD Symbol Acc 619730
G08	SBR1134453	ENSRNOT00000084917.1	Tubb5	ENSRNOG0000061216	tubulin, beta 5 class I Source RGD Symbol Acc 628596
G09	SBR1110868	ENSRNOT00000024947.4	Tubb6	ENSRNOG0000018371	tubulin, beta 6 class V Source RGD Symbol Acc 1305887
G10	SBR1170397	ENSRNOT00000081012.1	Tubd1	ENSRNOG0000053309	tubulin, delta 1 Source RGD Symbol Acc 1311967
G11	SBR1210780	ENSRNOT00000047194.3	Tube1	ENSRNOG0000000598	tubulin, epsilon 1 Source RGD Symbol Acc 1306048
G12	SBR1193309	ENSRNOT00000027370.5	Tubg1	ENSRNOG0000020213	tubulin, gamma 1 Source RGD Symbol Acc 628606
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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