

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

## Rat Cytoskeleton Regulators

Cat. no. 249950 SBRN-088ZA

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
A	Actr2	Actr3	Arap1	Arfp2	Arhgap5	Arhgdib	Arhgef1	Arhgef11	Arpc1b	Arpc2	Arpc3	Arpc4
B	Arpc5	Aurka	Aurkb	Aurkc	Baiap2	Cald1	Calm1	LOC100910506	Ccna1	Ccnb1	Ccnf	Cdc42
C	Cdc42bpa	Cdc42ep2	Cdc42ep3	Cdk5	Cdk5r1	Cfl1	Cit	Clasp1	Clasp2	Clip1	Clip2	Crk
D	Ctnn	Cyflp1	Cyflp2	Diaph1	Dstn	Ezr	Frbp11	Fscn2	Gsn	Igapp1	Limk1	Limk2
E	Ug1	Macf1	Map3k11	Map4	Map6	Mapk13	Mapre1	Mapt	Mark2	Mid1	Msn	Mylk
F	Mylk2	Nck1	Nck2	Pak1	Pak4	LOC100909840	Phldb2	Ppp1r12a	Ppp1r12b	Ppp3ca	Ppp3cb	Rac1
G	Racgap1	Rdx	Rhoa	Rock1	Sh3f1	Sh2	Stmn1	Tiam1	Vasp	Was	Wasf1	Wasl
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	SBR1106457	ENSRNOT00000006607.5	Actr2	ENSRNOG0000004959	ARP2 actin related protein 2 homolog Source RGD Symbol Acc 1310826
A02	SBR1199947	ENSRNOT00000084552.1	Actr3	ENSRNOG0000003206	ARP3 actin related protein 3 homolog Source RGD Symbol Acc 71024
A03	SBR1096525	ENSRNOT00000030037.5	Arap1	ENSRNOG0000019555	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 1 Source RGD Symbol Acc 1310385
A04	SBR1161104	ENSRNOT00000025159.4	Arfp2	ENSRNOG0000018440	ADP-ribosylation factor interacting protein 2 Source RGD Symbol Acc 1303204
A05	SBR1190489	ENSRNOT00000088378.1	Arhgap5	ENSRNOG0000004696	Rho GTPase activating protein 5 Source RGD Symbol Acc 1308507
A06	SBR1138007	ENSRNOT00000007779.7	Arhgdib	ENSRNOG0000005809	Rho GDP dissociation inhibitor beta Source RGD Symbol Acc 1305383
A07	SBR1164742	ENSRNOT00000065865.3	Arhgef1	ENSRNOG0000020130	Rho guanine nucleotide exchange factor 1 Source RGD Symbol Acc 620951
A08	SBR1133311	ENSRNOT00000020717.7	Arhgef11	ENSRNOG0000015026	Rho guanine nucleotide exchange factor 11 Source RGD Symbol Acc 619705
A09	SBR1163614	ENSRNOT00000001315.6	Arpc1b	ENSRNOG0000000991	actin related protein 2/3 complex, subunit 1B Source RGD Symbol Acc 2155
A10	SBR1175774	ENSRNOT00000019265.6	Arpc2	ENSRNOG0000014289	actin related protein 2/3 complex, subunit 2 Source RGD Symbol Acc 1305848
A11	SBR1167557	ENSRNOT00000011499.7	Arpc3	ENSRNOG0000008673	actin related protein 2/3 complex, subunit 3 Source RGD Symbol Acc 1311985
A12	SBR1196493	ENSRNOT00000011937.5	Arpc4	ENSRNOG0000008994	actin related protein 2/3 complex, subunit 4 Source RGD Symbol Acc 1310096
B01	SBR1105796	ENSRNOT00000092562.1	Arpc5	ENSRNOG0000028062	actin related protein 2/3 complex, subunit 5 Source RGD Symbol Acc 1311791
B02	SBR1180416	ENSRNOT00000055102.4	Aurka	ENSRNOG0000004479	aurora kinase A Source RGD Symbol Acc 628895
B03	SBR1202691	ENSRNOT00000008492.6	Aurkb	ENSRNOG0000005659	aurora kinase B Source RGD Symbol Acc 621625
B04	SBR1130862	ENSRNOT00000021245.7	Aurkc	ENSRNOG0000015825	aurora kinase C Source RGD Symbol Acc 1309573
B05	SBR1169469	ENSRNOT00000068437.4	Baiap2	ENSRNOG0000004049	BAI1-associated protein 2 Source RGD Symbol Acc 619814
B06	SBR1164974	ENSRNOT00000041264.3	Cald1	ENSRNOG0000010233	caldesmon 1 Source RGD Symbol Acc 2256
B07	SBR1172458	ENSRNOT00000064679.2	Calm1	ENSRNOG0000004060	calmodulin 2 Source RGD Symbol Acc 2258
B08	SBR1130072	ENSRNOT00000091382.1	LOC100910506	ENSRNOG0000060946	calcium/calmodulin dependent serine protein kinase Source RGD Symbol Acc 62004
B09	SBR1129309	ENSRNOT00000040002.4	Ccna1	ENSRNOG0000014052	cyclin A1 Source RGD Symbol Acc 1310639
B10	SBR1142548	ENSRNOT00000082846.1	Ccnb1	ENSRNOG0000058539	cyclin B1 Source RGD Symbol Acc 2291
B11	SBR1198223	ENSRNOT00000064392.1	Ccnf	ENSRNOG0000007483	cyclin F Source RGD Symbol Acc 67401
B12	SBR1159831	ENSRNOT00000029025.5	Cdc42	ENSRNOG0000013536	cell division cycle 42 Source RGD Symbol Acc 71043
C01	SBR1113152	ENSRNOT00000003837.3	Cdc42bpa	ENSRNOG0000002841	CDC42 binding protein kinase alpha Source RGD Symbol Acc 621406
C02	SBR1213635	ENSRNOT00000028379.5	Cdc42ep2	ENSRNOG0000020904	CDC42 effector protein 2 Source RGD Symbol Acc 1310253
C03	SBR1207648	ENSRNOT00000048711.4	Cdc42ep3	ENSRNOG0000032136	CDC42 effector protein 3 Source RGD Symbol Acc 1305858
C04	SBR1180282	ENSRNOT00000011052.4	Cdk5	ENSRNOG0000008017	cyclin-dependent kinase 5 Source RGD Symbol Acc 70514
C05	SBR1197371	ENSRNOT00000031746.2	Cdk5r1	ENSRNOG0000021685	cyclin-dependent kinase 5 regulatory subunit 1 Source RGD Symbol Acc 629472
C06	SBR1102451	ENSRNOT00000015962.6	Cfl1	ENSRNOG0000020660	cofilin 1 Source RGD Symbol Acc 69285
C07	SBR1172725	ENSRNOT00000057036.2	Cit	ENSRNOG0000001143	citron rho-interacting serine/threonine kinase Source RGD Symbol Acc 70878
C08	SBR1167376	ENSRNOT00000092998.1	Clasp1	ENSRNOG0000002376	cytoplasmic linker associated protein 1 Source RGD Symbol Acc 1310970
C09	SBR1206690	ENSRNOT00000091980.1	Clasp2	ENSRNOG0000009161	cytoplasmic linker associated protein 2 Source RGD Symbol Acc 619789
C10	SBR1167405	ENSRNOT00000088002.1	Clip1	ENSRNOG0000001247	CAP-GLY domain containing linker protein 1 Source RGD Symbol Acc 67404
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1215437	033200.4	Clip2	000021611	CAP-GLY domain containing linker protein 2 Source RGD Symbol Acc 62019
C12	SBR1123117	ENSRNOT0000006407.4	Crk	ENSRNOG0000025792	CRK proto-oncogene, adaptor protein Source RGD Symbol Acc 2405
D01	SBR1181436	ENSRNOT00000054859.5	Ctnn	ENSRNOG00000047280	cortactin Source RGD Symbol Acc 619839
D02	SBR1148408	ENSRNOT00000088459.1	Cyfp1	ENSRNOG0000011945	cytoplasmic FMR1 interacting protein 1 Source RGD Symbol Acc 1310332
D03	SBR1209936	ENSRNOT00000059496.4	Cyfp2	ENSRNOG00000066557	cytoplasmic FMR1 interacting protein 2 Source RGD Symbol Acc 1305048
D04	SBR1130473	ENSRNOT00000060432.5	Diaph1	ENSRNOG0000019688	diaphanous-related formin 1 Source RGD Symbol Acc 1310707
D05	SBR1212912	ENSRNOT0000007794.6	Dstn	ENSRNOG0000005924	destrin, actin depolymerizing factor Source RGD Symbol Acc 1588366
D06	SBR1212696	ENSRNOT00000090033.1	Ezr	ENSRNOG0000018524	ezrin Source RGD Symbol Acc 621161
D07	SBR1161393	ENSRNOT00000055669.4	Fnbp11	ENSRNOG0000013798	formin binding protein 1-like Source RGD Symbol Acc 1305386
D08	SBR1098138	ENSRNOT00000054975.2	Fscn2	ENSRNOG00000036700	fascin actin-bundling protein 2, retinal Source RGD Symbol Acc 1308941
D09	SBR1159016	ENSRNOT00000025857.5	Gsn	ENSRNOG0000018991	gelsolin Source RGD Symbol Acc 1303089
D10	SBR1196460	ENSRNOT00000018021.5	Iqgap1	ENSRNOG0000012002	IQ motif containing GTPase activating protein 1 Source RGD Symbol Acc 1311884
D11	SBR1203801	ENSRNOT00000084427.1	Limk1	ENSRNOG0000001470	LIM domain kinase 1 Source RGD Symbol Acc 62055
D12	SBR1145734	ENSRNOT00000057673.3	Limk2	ENSRNOG0000019000	LIM domain kinase 2 Source RGD Symbol Acc 62056
E01	SBR1115243	ENSRNOT00000005366.5	Llg1	ENSRNOG0000003948	LLGL scribble cell polarity complex component 1 Source RGD Symbol Acc 3012
E02	SBR1097119	ENSRNOT00000084109.1	Macf1	ENSRNOG0000016047	microtubule-actin crosslinking factor 1 Source RGD Symbol Acc 1306057
E03	SBR1105433	ENSRNOT00000028185.5	Map3k11	ENSRNOG0000020773	mitogen-activated protein kinase kinase kinase 11 Source RGD Symbol Acc 1359261
E04	SBR1101363	ENSRNOT00000056166.4	Map4	ENSRNOG0000020748	microtubule-associated protein 4 Source RGD Symbol Acc 1564359
E05	SBR1110941	ENSRNOT00000034389.6	Map6	ENSRNOG0000027204	microtubule-associated protein 6 Source RGD Symbol Acc 61804
E06	SBR1146992	ENSRNOT00000000621.6	Mapk13	ENSRNOG0000000515	mitogen activated protein kinase 13 Source RGD Symbol Acc 3045
E07	SBR1172341	ENSRNOT00000016220.6	Mapre1	ENSRNOG0000011798	microtubule-associated protein, RP/EB family, member 1 Source RGD Symbol Acc 621781
E08	SBR1202634	ENSRNOT00000042984.5	Mapt	ENSRNOG0000005133	microtubule-associated protein tau Source RGD Symbol Acc 69329
E09	SBR1130509	ENSRNOT00000091990.1	Mark2	ENSRNOG0000021184	microtubule affinity regulating kinase 2 Source RGD Symbol Acc 708483
E10	SBR1148550	ENSRNOT00000004873.6	Mid1	ENSRNOG0000003613	midline 1 Source RGD Symbol Acc 2640
E11	SBR1151055	ENSRNOT00000093499.1	Msn	ENSRNOG0000030118	moesin Source RGD Symbol Acc 621260
E12	SBR1114881	ENSRNOT00000085618.1	Mylk	ENSRNOG0000002215	myosin light chain kinase Source RGD Symbol Acc 1310915
F01	SBR1150149	ENSRNOT00000011255.5	Mylk2	ENSRNOG0000008235	myosin light chain kinase 2 Source RGD Symbol Acc 620934
F02	SBR1146512	ENSRNOT00000020330.7	Nck1	ENSRNOG0000014917	NCK adaptor protein 1 Source RGD Symbol Acc 1310688
F03	SBR1165392	ENSRNOT00000023029.7	Nck2	ENSRNOG0000017155	NCK adaptor protein 2 Source RGD Symbol Acc 1305965
F04	SBR1158213	ENSRNOT00000091952.1	Pak1	ENSRNOG0000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
F05	SBR1181658	ENSRNOT00000026966.6	Pak4	ENSRNOG0000019883	p21 (RAC1) activated kinase 4 Source RGD Symbol Acc 1307705
F06	SBR1199493	ENSRNOT00000023469.7	LOC100909840	ENSRNOG0000017427	profilin-2-like Source RGD Symbol Acc 6501768
F07	SBR1188103	ENSRNOT00000093201.1	Phldb2	ENSRNOG0000002171	pleckstrin homology-like domain, family B, member 2 Source NCBI gene Acc 685611
F08	SBR1214171	ENSRNOT00000006773.8	Ppp1r12a	ENSRNOG0000004925	protein phosphatase 1, regulatory subunit 12A Source RGD Symbol Acc 620013
F09	SBR1104913	ENSRNOT00000089068.1	Ppp1r12b	ENSRNOG0000051440	protein phosphatase 1, regulatory subunit 12B Source RGD Symbol Acc 1309287
F10	SBR1162958	ENSRNOT00000047975.5	Ppp3ca	ENSRNOG0000009882	protein phosphatase 3 catalytic subunit alpha Source RGD Symbol Acc 3382

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1174177	ENSRNOT00000082236.1	PPP3cb	ENSRNOG0000054782	protein phosphatase 3 catalytic subunit beta Source RGD Symbol Acc 3383
F12	SBR1123146	ENSRNOT00000001417.5	Rac1	ENSRNOG0000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
G01	SBR1134556	ENSRNOT00000071885.2	Racgap1	ENSRNOG0000049033	Rac GTPase-activating protein 1 Source RGD Symbol Acc 1305912
G02	SBR1193917	ENSRNOT00000034924.5	Rdx	ENSRNOG0000012237	radixin Source RGD Symbol Acc 1359472
G03	SBR1125110	ENSRNOT00000071664.2	Rhoa	ENSRNOG0000050519	ras homolog family member A Source RGD Symbol Acc 619921
G04	SBR1199203	ENSRNOT00000061777.5	Rock1	ENSRNOG0000031092	Rho-associated coiled-coil containing protein kinase 1 Source RGD Symbol Acc 620424
G05	SBR1177386	ENSRNOT00000013816.3	Sh3rf1	ENSRNOG0000010358	SH3 domain containing ring finger 1 Source RGD Symbol Acc 735154
G06	SBR1186229	ENSRNOT00000019410.6	Ssh2	ENSRNOG0000014285	slingshot protein phosphatase 2 Source RGD Symbol Acc 1309389
G07	SBR1151756	ENSRNOT00000022574.5	Stmn1	ENSRNOG0000016810	stathmin 1 Source RGD Symbol Acc 2992
G08	SBR1095684	ENSRNOT00000046486.5	Tiam1	ENSRNOG0000021569	T-cell lymphoma invasion and metastasis 1 Source RGD Symbol Acc 1307455
G09	SBR1164630	ENSRNOT00000022214.7	Vasp	ENSRNOG0000016367	vasodilator-stimulated phosphoprotein Source RGD Symbol Acc 1311542
G10	SBR1126078	ENSRNOT00000073289.3	Was	ENSRNOG0000031058	Wiskott-Aldrich syndrome Source RGD Symbol Acc 1563567
G11	SBR1106427	ENSRNOT00000073091.2	Wasf1	ENSRNOG0000047476	WAS protein family, member 1 Source RGD Symbol Acc 1561954
G12	SBR1162147	ENSRNOT00000009261.6	Wasl	ENSRNOG0000006975	Wiskott-Aldrich syndrome-like Source RGD Symbol Acc 735144
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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