

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

## Rat Focal Adhesions

Cat. no. 249950 SBRN-145ZR

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	Actn1	Actn3	Actn4	Akt1	Akt2	Akt3	Arhgap5	Bcar1	Braf	Capn2	Cav1	Cav2
B	Cav3	Cdc42	Crk	AABR0703475 0.1	Ctmb1	Diaph1	Dst	Flna	Flnb	Fyn	Grb2	Gsk3b
C	Hras	Ilk	Itga1	Itga10	Itga11	Itga2	Itga2b	Itga3	Itga4	Itga5	Itga6	Itga7
D	Itga8	Itga1	Itga10	Itgav	Itgax	Itgb1	Itgb2	Itgb3	Itgb4	Itgb5	Itgb6	Pak1
E	LOC1009107 32	Pak3	Pak4	Parva	Pdprk1	Pip5k1c	Plec	Prkca	Prkcb	Prkcg	Pten	Pik2
F	Pxn	Rac1	Rac2	Raf1	Rap1a	Rap1b	Rapgef1	Rasgrf1	Rhoa	Rock1	Rock2	Shc1
G	Shc2	Sos1	Sos2	Src	Tns2	Tin1	Tns4	Vasp	Vav1	Vav2	Vcl	Zyx
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	SBR1154429	ENSRNOT00000088795.1	Actn1	ENSRNOG0000056756	actinin, alpha 1 Source RGD Symbol Acc 70907
A02	SBR1122331	ENSRNOT00000026812.5	Actn3	ENSRNOG0000019745	actinin alpha 3 Source RGD Symbol Acc 621792
A03	SBR1128038	ENSRNOT00000027773.7	Actn4	ENSRNOG0000020433	actinin alpha 4 Source RGD Symbol Acc 61816
A04	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A05	SBR1190995	ENSRNOT00000025303.3	Akt2	ENSRNOG0000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A06	SBR1132835	ENSRNOT00000085648.1	Akt3	ENSRNOG0000021497	AKT serine/threonine kinase 3 Source RGD Symbol Acc 62390
A07	SBR1190489	ENSRNOT00000088378.1	Arhgap5	ENSRNOG0000004696	Rho GTPase activating protein 5 Source RGD Symbol Acc 1308507
A08	SBR1129792	ENSRNOT00000058891.4	Bcar1	ENSRNOG0000019253	BCAR1, Cas family scaffold protein Source RGD Symbol Acc 2406
A09	SBR1148348	ENSRNOT00000014604.7	Braf	ENSRNOG0000010957	B-Raf proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 619908
A10	SBR1117892	ENSRNOT00000045326.3	Capn2	ENSRNOG0000034015	calpain 2 Source RGD Symbol Acc 2268
A11	SBR1108638	ENSRNOT00000078250.1	Cav1	ENSRNOG0000056836	caveolin 1 Source RGD Symbol Acc 2280
A12	SBR1201369	ENSRNOT00000080271.1	Cav2	ENSRNOG0000057713	caveolin 2 Source RGD Symbol Acc 620348
B01	SBR1199258	ENSRNOT00000007601.4	Cav3	ENSRNOG000005798	caveolin 3 Source RGD Symbol Acc 2281
B02	SBR1159831	ENSRNOT00000029025.5	Cdc42	ENSRNOG0000013536	cell division cycle 42 Source RGD Symbol Acc 71043
B03	SBR1123117	ENSRNOT00000006407.4	Crk	ENSRNOG0000025792	CRK proto-oncogene, adaptor protein Source RGD Symbol Acc 2405
B04	SBR1213745	ENSRNOT00000090971.1	AABR07034750.1	ENSRNOG0000060228	
B05	SBR1143136	ENSRNOT00000079085.1	Cttnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B06	SBR1130473	ENSRNOT00000060432.5	Diaph1	ENSRNOG0000019688	diaphanous-related formin 1 Source RGD Symbol Acc 1310707
B07	SBR1174076	ENSRNOT00000044452.6	Dst	ENSRNOG0000012207	dystonin Source RGD Symbol Acc 1306566
B08	SBR1201602	ENSRNOT00000079889.1	Flna	ENSRNOG0000054890	filamin A Source RGD Symbol Acc 1560614
B09	SBR1195701	ENSRNOT00000066546.1	Flnb	ENSRNOG0000009470	filamin B Source RGD Symbol Acc 1311915
B10	SBR1167996	ENSRNOT00000085987.1	Fyn	ENSRNOG0000000596	FYN proto-oncogene, Src family tyrosine kinase Source RGD Symbol Acc 2641
B11	SBR1181692	ENSRNOT00000005347.5	Grb2	ENSRNOG0000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
B12	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C01	SBR1204952	ENSRNOT00000079464.1	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
C02	SBR1108626	ENSRNOT00000025906.4	Ilk	ENSRNOG0000018993	integrin-linked kinase Source RGD Symbol Acc 620063
C03	SBR1162885	ENSRNOT00000086114.1	Itga1	ENSRNOG0000053550	integrin subunit alpha 1 Source RGD Symbol Acc 2923
C04	SBR1169150	ENSRNOT00000028812.5	Itga10	ENSRNOG0000021217	integrin subunit alpha 10 Source RGD Symbol Acc 1305152
C05	SBR1121443	ENSRNOT00000008971.7	Itga11	ENSRNOG0000006723	integrin subunit alpha 11 Source RGD Symbol Acc 1311711
C06	SBR1203459	ENSRNOT00000077401.1	Itga2	ENSRNOG0000058111	integrin subunit alpha 2 Source RGD Symbol Acc 621632
C07	SBR1141197	ENSRNOT00000055179.5	Itga2b	ENSRNOG0000022071	integrin subunit alpha 2b Source RGD Symbol Acc 1596428
C08	SBR1140121	ENSRNOT00000035894.7	Itga3	ENSRNOG0000004276	integrin subunit alpha 3 Source RGD Symbol Acc 1310333
C09	SBR1153753	ENSRNOT00000006880.6	Itga4	ENSRNOG0000004861	integrin subunit alpha 4 Source RGD Symbol Acc 1593249
C10	SBR1211134	ENSRNOT00000087748.1	Itga5	ENSRNOG0000057451	integrin subunit alpha 5 Source RGD Symbol Acc 2925
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1106472	002075.4	Itga6	000001518	integrin subunit alpha 6 Source RGD Symbol Acc 621633
C12	SBR1134246	ENSRNOT00000 030453.6	Itga7	ENSRNOG00 000007905	integrin subunit alpha 7 Source RGD Symbol Acc 71022
D01	SBR1115234	ENSRNOT00000 022711.4	Itga8	ENSRNOG00 000016538	integrin subunit alpha 8 Source RGD Symbol Acc 621634
D02	SBR1127655	ENSRNOT00000 024404.6	Itgal	ENSRNOG00 000017980	integrin subunit alpha L Source RGD Symbol Acc 631424
D03	SBR1114389	ENSRNOT00000 086003.1	Itgad	ENSRNOG00 000019728	integrin subunit alpha M Source RGD Symbol Acc 2926
D04	SBR1162857	ENSRNOT00000 006961.7	Itgav	ENSRNOG00 000004912	integrin subunit alpha V Source RGD Symbol Acc 1310613
D05	SBR1156619	ENSRNOT00000 054983.4	Itgax	ENSRNOG00 000036703	integrin subunit alpha X Source RGD Symbol Acc 1561123
D06	SBR1105686	ENSRNOT00000 014785.5	Itgb1	ENSRNOG00 000010966	integrin subunit beta 1 Source RGD Symbol Acc 2927
D07	SBR1182978	ENSRNOT00000 001639.6	Itgb2	ENSRNOG00 000001224	integrin subunit beta 2 Source RGD Symbol Acc 1305581
D08	SBR1124401	ENSRNOT00000 073350.2	Itgb3	ENSRNOG00 000048449	integrin subunit beta 3 Source RGD Symbol Acc 628868
D09	SBR1171569	ENSRNOT00000 086747.1	Itgb4	ENSRNOG00 000005580	integrin subunit beta 4 Source RGD Symbol Acc 2928
D10	SBR1156192	ENSRNOT00000 076955.2	Itgb5	ENSRNOG00 000001795	integrin subunit beta 5 Source RGD Symbol Acc 628869
D11	SBR1162472	ENSRNOT00000 086576.1	Itgb6	ENSRNOG00 000008346	integrin subunit beta 6 Source RGD Symbol Acc 1303119
D12	SBR1158213	ENSRNOT00000 091952.1	Pak1	ENSRNOG00 000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
E01	SBR1197439	ENSRNOT00000 071060.2	LOC10091 0732	ENSRNOG00 000048597	p21 (RAC1) activated kinase 2 Source RGD Symbol Acc 61953
E02	SBR1119012	ENSRNOT00000 006459.5	Pak3	ENSRNOG00 000004676	p21 (RAC1) activated kinase 3 Source RGD Symbol Acc 3251
E03	SBR1181658	ENSRNOT00000 026966.6	Pak4	ENSRNOG00 000019883	p21 (RAC1) activated kinase 4 Source RGD Symbol Acc 1307705
E04	SBR1137584	ENSRNOT00000 021671.5	Parva	ENSRNOG00 000015713	parvin, alpha Source RGD Symbol Acc 71021
E05	SBR1133385	ENSRNOT00000 067660.1	Pdpk1	ENSRNOG00 000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
E06	SBR1187147	ENSRNOT00000 061159.4	Pip5k1c	ENSRNOG00 000020577	phosphatidylinositol-4-phosphate 5-kinase type 1 gamma Source RGD Symbol Acc 1309938
E07	SBR1142831	ENSRNOT00000 082271.1	Plec	ENSRNOG00 000023781	plectin Source RGD Symbol Acc 621649
E08	SBR1097570	ENSRNOT00000 055073.4	Prkca	ENSRNOG00 000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
E09	SBR1121471	ENSRNOT00000 016418.6	Prkcb	ENSRNOG00 000012061	protein kinase C, beta Source RGD Symbol Acc 3396
E10	SBR1199108	ENSRNOT00000 080032.1	Prkcg	ENSRNOG00 000054371	protein kinase C, gamma Source RGD Symbol Acc 3397
E11	SBR1174124	ENSRNOT00000 028143.3	Pten	ENSRNOG00 000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
E12	SBR1118067	ENSRNOT00000 079599.1	Plk2	ENSRNOG00 000007916	protein tyrosine kinase 2 Source RGD Symbol Acc 3443
F01	SBR1115591	ENSRNOT00000 064115.3	Pxn	ENSRNOG00 000001149	paxillin Source RGD Symbol Acc 1305759
F02	SBR1123146	ENSRNOT00000 001417.5	Rac1	ENSRNOG00 000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
F03	SBR1105258	ENSRNOT00000 009994.5	Rac2	ENSRNOG00 000007350	Rac family small GTPase 2 Source RGD Symbol Acc 1307568
F04	SBR1111289	ENSRNOT00000 013831.6	Raf1	ENSRNOG00 000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
F05	SBR1188580	ENSRNOT00000 047836.4	Rap1a	ENSRNOG00 000032463	RAP1A, member of RAS oncogene family Source RGD Symbol Acc 1359694
F06	SBR1158098	ENSRNOT00000 009511.5	Rap1b	ENSRNOG00 000007048	RAP1B, member of RAS oncogene family Source RGD Symbol Acc 620577
F07	SBR1160614	ENSRNOT00000 060977.5	Rapgef1	ENSRNOG00 000014316	Rap guanine nucleotide exchange factor 1 Source RGD Symbol Acc 619793
F08	SBR1143645	ENSRNOT00000 018794.8	Rasgrf1	ENSRNOG00 000014025	RAS protein-specific guanine nucleotide-releasing factor 1 Source RGD Symbol Acc 620395
F09	SBR1125110	ENSRNOT00000 071664.2	Rhoa	ENSRNOG00 000050519	ras homolog family member A Source RGD Symbol Acc 619921
F10	SBR1199203	ENSRNOT00000 061777.5	Rock1	ENSRNOG00 000031092	Rho-associated coiled-coil containing protein kinase 1 Source RGD Symbol Acc 620424

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1162788	ENSRNOT00000090816.1	Rock2	ENSRNOG0000004496	Rho-associated coiled-coil containing protein kinase 2 Source RGD Symbol Acc 3590
F12	SBR1136735	ENSRNOT00000056652.4	Shc1	ENSRNOG0000020657	SHC adaptor protein 1 Source RGD Symbol Acc 620446
G01	SBR1156949	ENSRNOT00000010714.5	Shc2	ENSRNOG0000008030	SHC adaptor protein 2 Source RGD Symbol Acc 1307137
G02	SBR1106511	ENSRNOT00000009359.7	Sos1	ENSRNOG0000007106	SOS Ras/Rac guanine nucleotide exchange factor 1 Source RGD Symbol Acc 1310949
G03	SBR1131279	ENSRNOT00000089891.1	Sos2	ENSRNOG0000004826	SOS Ras/Rho guanine nucleotide exchange factor 2 Source RGD Symbol Acc 620435
G04	SBR1192294	ENSRNOT00000012739.4	Src	ENSRNOG0000009495	SRC proto-oncogene, non-receptor tyrosine kinase Source RGD Symbol Acc 620795
G05	SBR1104153	ENSRNOT00000074212.1	Tns2	ENSRNOG0000010588	tensin 2 Source RGD Symbol Acc 1310917
G06	SBR1122860	ENSRNOT00000022400.5	Tln1	ENSRNOG0000016630	talin 1 Source RGD Symbol Acc 1306247
G07	SBR1210903	ENSRNOT00000030720.4	Tns4	ENSRNOG0000027350	tensin 4 Source RGD Symbol Acc 1310402
G08	SBR1164630	ENSRNOT00000022214.7	Vasp	ENSRNOG0000016367	vasodilator-stimulated phosphoprotein Source RGD Symbol Acc 1311542
G09	SBR1203435	ENSRNOT00000073294.2	Vav1	ENSRNOG00000050430	vav guanine nucleotide exchange factor 1 Source RGD Symbol Acc 3951
G10	SBR1097088	ENSRNOT00000081376.1	Vav2	ENSRNOG0000007422	vav guanine nucleotide exchange factor 2 Source RGD Symbol Acc 1306285
G11	SBR1137193	ENSRNOT00000015179.7	Vcl	ENSRNOG0000010765	vinculin Source RGD Symbol Acc 1311217
G12	SBR1195346	ENSRNOT00000023537.5	Zyx	ENSRNOG0000017354	zyxin Source RGD Symbol Acc 620698
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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