

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

Rat PI3K-AKT Signaling Pathway

Cat. no. 249950 SBRN-058ZR

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Adar	Akt1	Akt2	Akt3	Apc	Bad	Btk	Casp9	Ccnd1	Cd14	Cdc42	Cdkn1b
B	Chuk	Csnk2a1	Ctnnb1	Eif2ak2	Eif4b	Eif4e	Eif4ebp1	Eif4g1	Faslg	Fkbp1a	Fos	Foxg1
C	Foxo3	Gja1	Grb10	Grb2	Gsk3b	Hras	Hspb1	Igf1	Igf1r	Ilk	Irak1	Irs1
D	Ilgb1	Jun	Kcnnb8	Map2k1	Mapk1	Mapk14	Mapk3	Mapk8	Mtsp1	Mtor	Myd88	Nfkb1
E	Nkbia	Palbpc1	Pak1	Pdgfra	Pdk1	Pdk2	Pdcp1	Pik3ca	Pik3cg	Pik3r1	Pik3r2	Prkca
F	Prkcb	Prkcz	Plen	Ptk2	Ptpn11	Rac1	Raf1	Rasa1	Rb12	Rheb	Rhoa	Rps6ka1
G	Rps6kb1	Shc1	Sos1	Srf	Tcl1a	Tirap	Tlr4	Tollip	Tsc1	Tsc2	Wasl	Ywhah
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	SBR1214125	ENSRNOT00000028181.5	Adar	ENSRNOG0000020744	adenosine deaminase, RNA-specific Source RGD Symbol Acc 71099
A02	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A03	SBR1190995	ENSRNOT00000025303.3	Akt2	ENSRNOG0000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A04	SBR1132835	ENSRNOT00000085648.1	Akt3	ENSRNOG0000021497	AKT serine/threonine kinase 3 Source RGD Symbol Acc 62390
A05	SBR1094067	ENSRNOT00000090264.1	Apc	ENSRNOG0000020423	APC, WNT signaling pathway regulator Source RGD Symbol Acc 2123
A06	SBR1106737	ENSRNOT00000028712.5	Bad	ENSRNOG0000021147	BCL2-associated agonist of cell death Source RGD Symbol Acc 620103
A07	SBR1118771	ENSRNOT00000077547.1	Btk	ENSRNOG0000052407	Bruton tyrosine kinase Source RGD Symbol Acc 1359683
A08	SBR1175310	ENSRNOT00000085378.1	Casp9	ENSRNOG0000012944	caspase 9 Source RGD Symbol Acc 61867
A09	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A10	SBR1200939	ENSRNOT00000023977.6	Cd14	ENSRNOG0000017819	CD14 molecule Source RGD Symbol Acc 620588
A11	SBR1159831	ENSRNOT00000029025.5	Cdc42	ENSRNOG0000013536	cell division cycle 42 Source RGD Symbol Acc 71043
A12	SBR1124365	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B01	SBR1132111	ENSRNOT00000030782.4	Chuk	ENSRNOG0000022485	conserved helix-loop-helix ubiquitous kinase Source RGD Symbol Acc 1306661
B02	SBR1124723	ENSRNOT00000007558.5	Csnk2a1	ENSRNOG0000005276	casein kinase 2 alpha 1 Source RGD Symbol Acc 621663
B03	SBR1143136	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B04	SBR1161371	ENSRNOT00000089185.1	Eif2ak2	ENSRNOG0000048315	eukaryotic translation initiation factor 2-alpha kinase 2 Source RGD Symbol Acc 3402
B05	SBR1204313	ENSRNOT00000014033.5	Eif4b	ENSRNOG0000010103	eukaryotic translation initiation factor 4B Source RGD Symbol Acc 1306479
B06	SBR1151863	ENSRNOT00000090526.2	Eif4e	ENSRNOG0000052343	eukaryotic translation initiation factor 4E Source RGD Symbol Acc 69647
B07	SBR1186274	ENSRNOT00000016885.5	Eif4ebp1	ENSRNOG0000012582	eukaryotic translation initiation factor 4E binding protein 1 Source RGD Symbol Acc 620259
B08	SBR1115556	ENSRNOT00000041777.6	Eif4g1	ENSRNOG0000001738	eukaryotic translation initiation factor 4 gamma, 1 Source RGD Symbol Acc 1306144
B09	SBR1097457	ENSRNOT00000003998.2	Faslg	ENSRNOG0000002978	Fas ligand Source RGD Symbol Acc 3880
B10	SBR1094802	ENSRNOT00000012608.4	Fkbp1a	ENSRNOG0000008822	FKBP prolyl isomerase 1A Source RGD Symbol Acc 2617
B11	SBR1110295	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
B12	SBR1113024	ENSRNOT00000075349.1	Foxg1	ENSRNOG0000047891	forkhead box G1 Source RGD Symbol Acc 2619
C01	SBR1161322	ENSRNOT00000000327.5	Foxo3	ENSRNOG0000000299	forkhead box O3 Source RGD Symbol Acc 1309196
C02	SBR1181138	ENSRNOT00000001054.4	Gja1	ENSRNOG0000000805	gap junction protein, alpha 1 Source RGD Symbol Acc 2690
C03	SBR1202533	ENSRNOT00000085175.1	Grb10	ENSRNOG0000004290	growth factor receptor bound protein 10 Source RGD Symbol Acc 1566234
C04	SBR1181692	ENSRNOT00000005347.5	Grb2	ENSRNOG0000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
C05	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C06	SBR1204952	ENSRNOT00000079464.1	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
C07	SBR1195680	ENSRNOT00000031555.5	Hspb1	ENSRNOG0000023546	heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306
C08	SBR1185495	ENSRNOT00000038780.6	Igf1	ENSRNOG0000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
C09	SBR1109208	ENSRNOT00000019267.6	Igf1r	ENSRNOG0000014187	insulin-like growth factor 1 receptor Source RGD Symbol Acc 2869
C10	SBR1108626	ENSRNOT00000025906.4	Ilk	ENSRNOG0000018993	integrin-linked kinase Source RGD Symbol Acc 620063
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1200697	092207.1	Irak1	000060869	interleukin-1 receptor-associated kinase 1 Source RGD Symbol Acc 1563841
C12	SBR1132302	ENSRNOT00000 019579.5	Irs1	ENSRNOG00 000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D01	SBR1105686	ENSRNOT00000 014785.5	Itgb1	ENSRNOG00 000010966	integrin subunit beta 1 Source RGD Symbol Acc 2927
D02	SBR1133226	ENSRNOT00000 011731.3	Jun	ENSRNOG00 000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
D03	SBR1149643	ENSRNOT00000 087331.1	Kcnh8	ENSRNOG00 000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
D04	SBR1111011	ENSRNOT00000 013933.6	Map2k1	ENSRNOG00 000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
D05	SBR1202944	ENSRNOT00000 002533.7	Mapk1	ENSRNOG00 000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
D06	SBR1149566	ENSRNOT00000 000618.6	Mapk14	ENSRNOG00 000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
D07	SBR1209281	ENSRNOT00000 087625.1	Mapk3	ENSRNOG00 000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
D08	SBR1144517	ENSRNOT00000 065216.3	Mapk8	ENSRNOG00 000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
D09	SBR1204250	ENSRNOT00000 033663.6	Mtcp1	ENSRNOG00 000024071	mature T-cell proliferation 1 Source RGD Symbol Acc 1561352
D10	SBR1220576	ENSRNOT00000 014167.7	Mtor	ENSRNOG00 000009615	mechanistic target of rapamycin kinase Source RGD Symbol Acc 68371
D11	SBR1185632	ENSRNOT00000 018341.5	Myd88	ENSRNOG00 000013634	MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043
D12	SBR1111134	ENSRNOT00000 036838.4	Nfkb1	ENSRNOG00 000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E01	SBR1120974	ENSRNOT00000 009894.6	Nfkbia	ENSRNOG00 000007390	NFKB inhibitor alpha Source RGD Symbol Acc 3171
E02	SBR1116610	ENSRNOT00000 080218.1	Pabpc1	ENSRNOG00 000008639	poly(A) binding protein, cytoplasmic 1 Source RGD Symbol Acc 619838
E03	SBR1158213	ENSRNOT00000 091952.1	Pak1	ENSRNOG00 000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
E04	SBR1195557	ENSRNOT00000 003077.5	Pdgfra	ENSRNOG00 000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E05	SBR1201435	ENSRNOT00000 002072.6	Pdk1	ENSRNOG00 000001517	pyruvate dehydrogenase kinase 1 Source RGD Symbol Acc 69427
E06	SBR1216150	ENSRNOT00000 005641.6	Pdk2	ENSRNOG00 000004172	pyruvate dehydrogenase kinase 2 Source RGD Symbol Acc 69428
E07	SBR1133385	ENSRNOT00000 067660.1	Pdpk1	ENSRNOG00 000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
E08	SBR1193587	ENSRNOT00000 083720.1	Pik3ca	ENSRNOG00 000056371	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha Source RGD Symbol Acc 620916
E09	SBR1140914	ENSRNOT00000 012487.5	Pik3cg	ENSRNOG00 000009385	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma Source RGD Symbol Acc 1306468
E10	SBR1155861	ENSRNOT00000 025687.7	Pik3r1	ENSRNOG00 000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
E11	SBR1151465	ENSRNOT00000 026210.5	Pik3r2	ENSRNOG00 000019228	phosphoinositide-3-kinase regulatory subunit 2 Source RGD Symbol Acc 68341
E12	SBR1097570	ENSRNOT00000 055073.4	Prkca	ENSRNOG00 000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F01	SBR1121471	ENSRNOT00000 016418.6	Prkcb	ENSRNOG00 000012061	protein kinase C, beta Source RGD Symbol Acc 3396
F02	SBR1208170	ENSRNOT00000 021285.6	Prkcz	ENSRNOG00 000015480	protein kinase C, zeta Source RGD Symbol Acc 3399
F03	SBR1174124	ENSRNOT00000 028143.3	Pten	ENSRNOG00 000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
F04	SBR1118067	ENSRNOT00000 079599.1	Plk2	ENSRNOG00 000007916	protein tyrosine kinase 2 Source RGD Symbol Acc 3443
F05	SBR1164134	ENSRNOT00000 046323.5	Ptfn11	ENSRNOG00 000030124	protein tyrosine phosphatase, non-receptor type 11 Source RGD Symbol Acc 3447
F06	SBR1123146	ENSRNOT00000 001417.5	Rac1	ENSRNOG00 000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
F07	SBR1111289	ENSRNOT00000 013831.6	Raf1	ENSRNOG00 000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
F08	SBR1192086	ENSRNOT00000 046251.2	Rasa1	ENSRNOG00 000029185	RAS p21 protein activator 1 Source RGD Symbol Acc 3537
F09	SBR1176291	ENSRNOT00000 017361.3	Rbl2	ENSRNOG00 000012153	RB transcriptional corepressor like 2 Source RGD Symbol Acc 3541
F10	SBR1173372	ENSRNOT00000 071737.2	Rheb	ENSRNOG00 000050578	Ras homolog, mTORC1 binding Source RGD Symbol Acc 621840

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1125110	ENSRNOT00000071664.2	Rhoa	ENSRNOG0000050519	ras homolog family member A Source RGD Symbol Acc 619921
F12	SBR1200224	ENSRNOT00000077248.1	Rps6ka1	ENSRNOG0000042411	ribosomal protein S6 kinase A1 Source RGD Symbol Acc 620675
G01	SBR1105085	ENSRNOT0000005226.4	Rps6kb1	ENSRNOG0000003919	ribosomal protein S6 kinase B1 Source RGD Symbol Acc 620683
G02	SBR1136735	ENSRNOT00000056652.4	Shc1	ENSRNOG0000020657	SHC adaptor protein 1 Source RGD Symbol Acc 620446
G03	SBR1106511	ENSRNOT00000009359.7	Sos1	ENSRNOG0000007106	SOS Ras/Rac guanine nucleotide exchange factor 1 Source RGD Symbol Acc 1310949
G04	SBR1136781	ENSRNOT00000061430.3	Srf	ENSRNOG0000018232	serum response factor Source RGD Symbol Acc 1559787
G05	SBR1201459	ENSRNOT00000029346.4	Tcl1a	ENSRNOG0000025233	T-cell leukemia/lymphoma 1A Source RGD Symbol Acc 1594686
G06	SBR1108614	ENSRNOT00000038312.5	Tirap	ENSRNOG0000021420	TIR domain containing adaptor protein Source RGD Symbol Acc 1595496
G07	SBR1180108	ENSRNOT00000014020.3	Tlr4	ENSRNOG0000010522	toll-like receptor 4 Source RGD Symbol Acc 3870
G08	SBR1187324	ENSRNOT00000046344.3	Tollip	ENSRNOG0000019861	toll interacting protein Source RGD Symbol Acc 1304676
G09	SBR1131530	ENSRNOT00000016904.3	Tsc1	ENSRNOG0000011470	TSC complex subunit 1 Source RGD Symbol Acc 620124
G10	SBR1097853	ENSRNOT00000016221.3	Tsc2	ENSRNOG0000011375	TSC complex subunit 2 Source RGD Symbol Acc 3908
G11	SBR1162147	ENSRNOT00000009261.6	Wasl	ENSRNOG0000006975	Wiskott-Aldrich syndrome-like Source RGD Symbol Acc 735144
G12	SBR1108995	ENSRNOT00000085735.1	Ywhah	ENSRNOG0000055471	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, eta Source RGD Symbol Acc 3978
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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