

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

Rat Unfolded Protein Response

Cat. no. 249950 SBRN-089ZR

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	Atf4	Atf6	Atxn3	Bax	Calr	Canx	Cct4	Cd7	Cebpb	Creb3	Creb3l1	Creb3l2
B	Creb3l3	Creb3l4	Ddit3	Derl1	Dnajb9	Dnajc10	Dnajc3	Dnajc4	Tor1a	Edem1	Edem2	Elf2a
C	Elf2ak2	Elf2ak3	Elf2ak4	Emr2	Ero1a	Fbxo6	Ganab	Herpud1	Herpud2	Hsp90b1	Hspa11	Hspa2
D	Hspa4	Hspa4l	Hspa5	Hspb9	Hsph1	Htra2	Htra4	Insig1	Insig2	Manf	Mapk10	Mapk8
E	Mapk9	Mblps1	Mblps2	Nplc4	Nucb1	Os9	Pdia3	Pfdn5	Pfdn6	Ppia	Ppiib	Ppic
F	Ppp1r15a	Ppp1r15b	Prkcsb	Rnf139	Rpn1	Scap	Sec62	Sec63	Sel1l	Selenos	Serp1	Sil1
G	Sreb1	Sreb1f2	Syn1	Tcp1	Ube2g2	Ube2j2	Ubxm4	Ufd1	Uggt1	Usp14	Vcp	Xbp1
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	SBR1186510	ENSRNOT00000065304.4	Atf4	ENSRNOG0000017801	activating transcription factor 4 Source RGD Symbol Acc 621863
A02	SBR1113797	ENSRNOT00000029202.5	Atf6	ENSRNOG0000024632	activating transcription factor 6 Source RGD Symbol Acc 1305471
A03	SBR1173486	ENSRNOT00000007505.2	Atxn3	ENSRNOG0000005470	ataxin 3 Source RGD Symbol Acc 621567
A04	SBR1154566	ENSRNOT00000028328.5	Bax	ENSRNOG0000020876	BCL2 associated X, apoptosis regulator Source RGD Symbol Acc 2192
A05	SBR1095160	ENSRNOT00000004091.6	Calr	ENSRNOG0000003029	calreticulin Source RGD Symbol Acc 620288
A06	SBR1193677	ENSRNOT00000049942.4	Canx	ENSRNOG0000003343	calnexin Source RGD Symbol Acc 2266
A07	SBR1140872	ENSRNOT00000012847.3	Cct4	ENSRNOG0000009642	chaperonin containing TCP1 subunit 4 Source RGD Symbol Acc 727937
A08	SBR1102671	ENSRNOT00000021030.5	Cct7	ENSRNOG0000015630	chaperonin containing TCP1 subunit 7 Source RGD Symbol Acc 1306422
A09	SBR1114232	ENSRNOT00000083876.1	Cebpb	ENSRNOG0000057347	CCAAT/enhancer binding protein beta Source RGD Symbol Acc 2327
A10	SBR1185525	ENSRNOT00000085311.1	Creb3	ENSRNOG0000016452	cAMP responsive element binding protein 3 Source RGD Symbol Acc 1308831
A11	SBR1212896	ENSRNOT00000007771.3	Creb3l1	ENSRNOG0000005413	cAMP responsive element binding protein 3-like 1 Source RGD Symbol Acc 1359613
A12	SBR1139196	ENSRNOT00000017338.5	Creb3l2	ENSRNOG0000012826	cAMP responsive element binding protein 3-like 2 Source RGD Symbol Acc 1306040
B01	SBR1194973	ENSRNOT00000044484.3	Creb3l3	ENSRNOG0000032202	cAMP responsive element binding protein 3-like 3 Source RGD Symbol Acc 1308152
B02	SBR1122169	ENSRNOT00000032062.4	Creb3l4	ENSRNOG0000023493	cAMP responsive element binding protein 3-like 4 Source RGD Symbol Acc 1359278
B03	SBR1210119	ENSRNOT00000083472.1	Ddit3	ENSRNOG0000006789	DNA-damage inducible transcript 3 Source RGD Symbol Acc 62391
B04	SBR1187357	ENSRNOT00000007484.5	Derl1	ENSRNOG0000005551	derlin 1 Source RGD Symbol Acc 1311835
B05	SBR1109895	ENSRNOT00000005363.5	Dnajb9	ENSRNOG0000004006	DnaJ heat shock protein family (Hsp40) member B9 Source RGD Symbol Acc 3070
B06	SBR1197872	ENSRNOT00000009839.4	Dnajc10	ENSRNOG0000006803	DnaJ heat shock protein family (Hsp40) member C10 Source RGD Symbol Acc 1307813
B07	SBR1201517	ENSRNOT00000093411.1	Dnajc3	ENSRNOG0000010352	DnaJ heat shock protein family (Hsp40) member C3 Source RGD Symbol Acc 708518
B08	SBR1192355	ENSRNOT00000087285.1	Dnajc4	ENSRNOG0000043060	DnaJ heat shock protein family (Hsp40) member C4 Source RGD Symbol Acc 1308693
B09	SBR1205998	ENSRNOT00000064660.3	Tor1a	ENSRNOG0000006894	torsin family 1, member A Source RGD Symbol Acc 628863
B10	SBR1215864	ENSRNOT00000088273.1	Edem1	ENSRNOG0000055365	ER degradation enhancing alpha-mannosidase like protein 1 Source RGD Symbol Acc 1563633
B11	SBR1170610	ENSRNOT00000026120.5	Edem2	ENSRNOG0000019299	ER degradation enhancing alpha-mannosidase like protein 2 Source RGD Symbol Acc 1303074
B12	SBR1138699	ENSRNOT00000018022.6	Eif2a	ENSRNOG0000013393	eukaryotic translation initiation factor 2A Source RGD Symbol Acc 1589591
C01	SBR1161371	ENSRNOT00000089185.1	Eif2ak2	ENSRNOG0000048315	eukaryotic translation initiation factor 2-alpha kinase 2 Source RGD Symbol Acc 3402
C02	SBR1191631	ENSRNOT00000008451.5	Eif2ak3	ENSRNOG0000006069	eukaryotic translation initiation factor 2 alpha kinase 3 Source RGD Symbol Acc 70884
C03	SBR1105537	ENSRNOT00000009222.7	Eif2ak4	ENSRNOG0000006027	eukaryotic translation initiation factor 2 alpha kinase 4 Source RGD Symbol Acc 1311439
C04	SBR1169490	ENSRNOT00000025699.4	Ern2	ENSRNOG0000018974	endoplasmic reticulum to nucleus signaling 2 Source RGD Symbol Acc 1308743
C05	SBR1157441	ENSRNOT00000009404.6	Ero1a	ENSRNOG0000006462	endoplasmic reticulum oxidoreductase 1 alpha Source RGD Symbol Acc 621713
C06	SBR1104182	ENSRNOT00000012301.4	Fbxo6	ENSRNOG0000009217	F-box protein 6 Source RGD Symbol Acc 620418
C07	SBR1096117	ENSRNOT00000035650.2	Ganab	ENSRNOG0000019724	glucosidase II alpha subunit Source RGD Symbol Acc 1309775
C08	SBR1209229	ENSRNOT00000025559.5	Herpud1	ENSRNOG0000018796	homocysteine inducible ER protein with ubiquitin like domain 1 Source RGD Symbol Acc 620818
C09	SBR1131200	ENSRNOT00000046432.3	Herpud2	ENSRNOG0000029995	HERPUD family member 2 Source RGD Symbol Acc 1307343
C10	SBR1196985	ENSRNOT00000079731.1	Hsp90b1	ENSRNOG0000026963	heat shock protein 90 beta family member 1 Source RGD Symbol Acc 1310482
		ENSRNOT000000		ENSRNOG00	heat shock protein family A (Hsp70) member 1 like Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1207127	074223.2	Hspa1l	000047966	1595925
C12	SBR1199480	ENSRNOT00000008504.5	Hspa2	ENSRNOG0000006472	heat shock protein family A member 2 Source RGD Symbol Acc 620664
D01	SBR1138708	ENSRNOT00000023628.3	Hspa4	ENSRNOG0000016596	heat shock protein family A member 4 Source RGD Symbol Acc 628878
D02	SBR1146380	ENSRNOT00000015474.6	Hspa4l	ENSRNOG0000010819	heat shock protein family A (Hsp70) member 4 like Source RGD Symbol Acc 1306528
D03	SBR1166340	ENSRNOT00000025067.6	Hspa5	ENSRNOG0000018294	heat shock protein family A member 5 Source RGD Symbol Acc 2843
D04	SBR1095370	ENSRNOT00000055248.2	Hspb9	ENSRNOG0000036819	heat shock protein family B (small) member 9 Source RGD Symbol Acc 1309122
D05	SBR1096780	ENSRNOT00000001201.7	Hsph1	ENSRNOG0000000902	heat shock protein family H (Hsp110) member 1 Source RGD Symbol Acc 1311609
D06	SBR1187827	ENSRNOT00000037333.5	Htra2	ENSRNOG0000022448	HtrA serine peptidase 2 Source RGD Symbol Acc 1308906
D07	SBR1157912	ENSRNOT00000080084.1	Htra4	ENSRNOG0000061160	HtrA serine peptidase 4 Source RGD Symbol Acc 1306242
D08	SBR1166001	ENSRNOT00000009233.6	Insig1	ENSRNOG0000006859	insulin induced gene 1 Source RGD Symbol Acc 708457
D09	SBR1127467	ENSRNOT00000003391.5	Insig2	ENSRNOG0000002478	insulin induced gene 2 Source RGD Symbol Acc 631417
D10	SBR1195434	ENSRNOT00000019107.7	Manf	ENSRNOG0000014201	mesencephalic astrocyte-derived neurotrophic factor Source RGD Symbol Acc 1307252
D11	SBR1165034	ENSRNOT00000092395.1	Mapk10	ENSRNOG0000002079	mitogen activated protein kinase 10 Source RGD Symbol Acc 3663
D12	SBR1144517	ENSRNOT00000065216.3	Mapk8	ENSRNOG0000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
E01	SBR1169613	ENSRNOT00000004010.4	Mapk9	ENSRNOG0000002823	mitogen-activated protein kinase 9 Source RGD Symbol Acc 628847
E02	SBR1130128	ENSRNOT00000020838.7	Mbtps1	ENSRNOG0000015173	membrane-bound transcription factor peptidase, site 1 Source RGD Symbol Acc 70935
E03	SBR1149921	ENSRNOT00000087898.1	Mbtps2	ENSRNOG0000007644	membrane-bound transcription factor peptidase, site 2 Source RGD Symbol Acc 1566171
E04	SBR1153380	ENSRNOT00000080188.1	Nplc4	ENSRNOG0000036698	NPL4 homolog, ubiquitin recognition factor Source RGD Symbol Acc 620794
E05	SBR1135306	ENSRNOT00000028390.5	Nucb1	ENSRNOG0000020889	nucleobindin 1 Source RGD Symbol Acc 620030
E06	SBR1108059	ENSRNOT00000049895.3	Os9	ENSRNOG0000025570	OS9, endoplasmic reticulum lectin Source RGD Symbol Acc 1359574
E07	SBR1181637	ENSRNOT00000020478.7	Pdia3	ENSRNOG0000015018	protein disulfide isomerase family A, member 3 Source RGD Symbol Acc 68430
E08	SBR1186908	ENSRNOT00000017794.5	Pfdn5	ENSRNOG0000012985	prefoldin subunit 5 Source RGD Symbol Acc 1311436
E09	SBR1111422	ENSRNOT00000092676.1	Pfdn6	ENSRNOG0000000473	prefoldin subunit 6 Source RGD Symbol Acc 1303006
E10	SBR1220569	ENSRNOT00000091873.1	Ppia	ENSRNOG0000027864	peptidylprolyl isomerase A Source RGD Symbol Acc 3372
E11	SBR1218522	ENSRNOT00000022828.7	Ppib	ENSRNOG0000016781	peptidylprolyl isomerase B Source RGD Symbol Acc 620312
E12	SBR1122530	ENSRNOT00000023485.4	Ppic	ENSRNOG0000017416	peptidylprolyl isomerase C Source RGD Symbol Acc 1303221
F01	SBR1209656	ENSRNOT00000044788.4	Ppp1r15a	ENSRNOG0000020938	protein phosphatase 1, regulatory subunit 15A Source RGD Symbol Acc 621526
F02	SBR1136626	ENSRNOT00000037039.6	Ppp1r15b	ENSRNOG0000028493	protein phosphatase 1, regulatory subunit 15B Source RGD Symbol Acc 1307944
F03	SBR1152378	ENSRNOT00000018009.6	Prkcsh	ENSRNOG0000013360	protein kinase C substrate 80K-H Source RGD Symbol Acc 1309628
F04	SBR1213274	ENSRNOT00000011891.7	Rnf139	ENSRNOG0000008987	ring finger protein 139 Source RGD Symbol Acc 1306670
F05	SBR1205112	ENSRNOT00000073429.2	Rpn1	ENSRNOG0000046345	ribophorin I Source RGD Symbol Acc 3594
F06	SBR1176791	ENSRNOT00000028295.7	Scap	ENSRNOG0000020853	SREBF chaperone Source RGD Symbol Acc 1309378
F07	SBR1135328	ENSRNOT00000012240.4	Sec62	ENSRNOG0000009057	SEC62 homolog, preprotein translocation factor Source RGD Symbol Acc 1308862
F08	SBR1117524	ENSRNOT00000087718.1	Sec63	ENSRNOG0000000314	SEC63 homolog, protein translocation regulator Source RGD Symbol Acc 1304984
F09	SBR1130262	ENSRNOT00000006143.6	Sel1l	ENSRNOG0000004464	SEL1L ERAD E3 ligase adaptor subunit Source RGD Symbol Acc 620147
F10	SBR1160665	ENSRNOT00000016916.6	Selenos	ENSRNOG0000012576	selenoprotein S Source RGD Symbol Acc 628897

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1124329	ENSRNOT00000017868.5	Serp1	ENSRNOG00000011763	stress-associated endoplasmic reticulum protein 1 Source RGD Symbol Acc 620790
F12	SBR1127515	ENSRNOT00000026895.5	Sil1	ENSRNOG00000019826	SIL1 nucleotide exchange factor Source RGD Symbol Acc 735103
G01	SBR1114531	ENSRNOT00000047053.6	Srebf1	ENSRNOG00000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423
G02	SBR1106475	ENSRNOT00000056041.2	Srebf2	ENSRNOG00000007400	sterol regulatory element binding transcription factor 2 Source RGD Symbol Acc 1307751
G03	SBR1193061	ENSRNOT00000028462.6	Syn1	ENSRNOG00000020950	synoviolin 1 Source RGD Symbol Acc 1310488
G04	SBR1154694	ENSRNOT00000019531.4	Tcp1	ENSRNOG00000014160	t-complex 1 Source RGD Symbol Acc 3832
G05	SBR1210390	ENSRNOT00000001636.7	Ube2g2	ENSRNOG00000001222	ubiquitin-conjugating enzyme E2G 2 Source RGD Symbol Acc 1304860
G06	SBR1148781	ENSRNOT00000077602.1	Ube2j2	ENSRNOG00000019749	ubiquitin-conjugating enzyme E2, J2 Source RGD Symbol Acc 1359523
G07	SBR1195501	ENSRNOT00000004878.7	Ubxn4	ENSRNOG00000003625	UBX domain protein 4 Source RGD Symbol Acc 1307451
G08	SBR1171349	ENSRNOT00000071493.2	Ufd1	ENSRNOG00000047394	ubiquitin recognition factor in ER associated degradation 1 Source RGD Symbol Acc 619822
G09	SBR1121325	ENSRNOT00000020558.5	Uggt1	ENSRNOG00000014901	UDP-glucose glycoprotein glucosyltransferase 1 Source RGD Symbol Acc 619710
G10	SBR1106536	ENSRNOT00000020537.6	Usp14	ENSRNOG00000014981	ubiquitin specific peptidase 14 Source RGD Symbol Acc 1311825
G11	SBR1213600	ENSRNOT00000046102.2	Vcp	ENSRNOG00000034242	valosin-containing protein Source RGD Symbol Acc 621595
G12	SBR1176433	ENSRNOT00000014044.6	Xbp1	ENSRNOG00000010298	X-box binding protein 1 Source RGD Symbol Acc 1303073
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG00000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG00000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG00000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG00000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG00000013874	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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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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