

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

Rat Cellular Stress Responses

Cat. no. 249950 SBRN-019ZR

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	Acadab	Bag1	Calr	Canx	Cat	Cct2	Cct3	Cct4	Cct5	Cct7	Cct8	Ces1d
B	Ces1a	Clu	Cryaa	Cryab	Cyp11a1	Cyp17a1	Cyp1a1	Cyp1a2	Cyp1b1	Cyp2c12	Cyp2c13	Cyp2c6v1
C	Cyp2c7	Cyp2d4	Cyp2e1	Cyp2f4	AABR0703537 4.1	Cyp4b1	Cyp7a1	Cyp7b1	Dnaja1	Dnaja2	Dnaja3	Dnaja4
D	Dnajb1	Dnajb11	Dnajb12	Dnajb4	Dnajb5	Dnajb6	Dnajb9	Dnajc1	Dnajc4	Dnajc5	Dnajc6	Dnajc7
E	Dnajc8	Dnajc9	Ephx2	Fmo1	Fmo4	Fmo5	Gpx1	Gpx2	Gsr	Gsta1	Gstk1	Gstm1
F	Gsta1	Hmox1	Hmox2	Hspx	Hspa12a	Hspa1a	Hspa1l	Hspa2	Hspa4	Hspa5	Hspa9	Hspb1
G	Hspb2	Hspb3	Hspd1	Hspe1	Ppid	Serpinh1	Sod1	Sod2	Sod3	Stt3	Tcp1	Xdh
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	SBR1202500	ENSRNOT00000027999.4	Acadslb	ENSRNOG0000020624	acyl-CoA dehydrogenase, short/branched chain Source RGD Symbol Acc 2013
A02	SBR1157338	ENSRNOT00000011455.6	Bag1	ENSRNOG0000008277	Bcl2 associated athanogene 1 Source RGD Symbol Acc 1305203
A03	SBR1095160	ENSRNOT00000004091.6	Calr	ENSRNOG0000003029	calreticulin Source RGD Symbol Acc 620288
A04	SBR1193677	ENSRNOT00000049942.4	Canx	ENSRNOG0000003343	calnexin Source RGD Symbol Acc 2266
A05	SBR1123529	ENSRNOT00000011230.5	Cat	ENSRNOG0000008364	catalase Source RGD Symbol Acc 2279
A06	SBR1209040	ENSRNOT00000037946.5	Cct2	ENSRNOG0000021317	chaperonin containing TCP1 subunit 2 Source RGD Symbol Acc 1359143
A07	SBR1184000	ENSRNOT00000025824.6	Cct3	ENSRNOG0000019090	chaperonin containing TCP1 subunit 3 Source RGD Symbol Acc 735038
A08	SBR1140872	ENSRNOT00000012847.3	Cct4	ENSRNOG0000009642	chaperonin containing TCP1 subunit 4 Source RGD Symbol Acc 727937
A09	SBR1200760	ENSRNOT00000015886.6	Cct5	ENSRNOG0000011632	chaperonin containing TCP1 subunit 5 Source RGD Symbol Acc 735161
A10	SBR1102671	ENSRNOT00000021030.5	Cct7	ENSRNOG0000015630	chaperonin containing TCP1 subunit 7 Source RGD Symbol Acc 1306422
A11	SBR1145335	ENSRNOT00000002169.6	Cct8	ENSRNOG0000001592	chaperonin containing TCP1 subunit 8 Source RGD Symbol Acc 1305452
A12	SBR1105555	ENSRNOT00000021812.6	Ces1d	ENSRNOG0000015519	carboxylesterase 1D Source RGD Symbol Acc 70896
B01	SBR1188343	ENSRNOT00000060929.2	Ces1a	ENSRNOG0000039725	carboxylesterase 1A Source RGD Symbol Acc 1583671
B02	SBR1134172	ENSRNOT00000078861.1	Clu	ENSRNOG0000016460	clusterin Source RGD Symbol Acc 3907
B03	SBR1130295	ENSRNOT00000075545.3	Cryaa	ENSRNOG0000047175	crystallin, alpha A Source RGD Symbol Acc 2413
B04	SBR1151967	ENSRNOT00000059127.3	Cryab	ENSRNOG0000010524	crystallin, alpha B Source RGD Symbol Acc 2414
B05	SBR1181695	ENSRNOT00000010831.6	Cyp11a1	ENSRNOG0000008074	cytochrome P450, family 11, subfamily a, polypeptide 1 Source RGD Symbol Acc 69325
B06	SBR1128529	ENSRNOT00000027160.4	Cyp17a1	ENSRNOG0000020035	cytochrome P450, family 17, subfamily a, polypeptide 1 Source RGD Symbol Acc 2456
B07	SBR1197501	ENSRNOT00000026473.4	Cyp1a1	ENSRNOG0000019500	cytochrome P450, family 1, subfamily a, polypeptide 1 Source RGD Symbol Acc 2458
B08	SBR1120481	ENSRNOT00000021653.7	Cyp1a2	ENSRNOG0000016173	cytochrome P450, family 1, subfamily a, polypeptide 2 Source RGD Symbol Acc 2459
B09	SBR1097149	ENSRNOT00000082017.1	Cyp1b1	ENSRNOG0000040287	cytochrome P450, family 1, subfamily b, polypeptide 1 Source RGD Symbol Acc 2460
B10	SBR1151149	ENSRNOT00000015801.7	Cyp2c12	ENSRNOG0000047945	cytochrome P450, family 2, subfamily c, polypeptide 12 Source RGD Symbol Acc 2470
B11	SBR1149228	ENSRNOT00000071633.3	Cyp2c13	ENSRNOG0000049464	cytochrome P450, family 2, subfamily c, polypeptide 13 Source RGD Symbol Acc 620363
B12	SBR1094603	ENSRNOT00000092985.1	Cyp2c6v1	ENSRNOG0000024016	cytochrome P450, family 2, subfamily C, polypeptide 6, variant 1 Source RGD Symbol Acc 619934
C01	SBR1213983	ENSRNOT00000040325.5	Cyp2c7	ENSRNOG0000021405	cytochrome P450, family 2, subfamily c, polypeptide 7 Source RGD Symbol Acc 620379
C02	SBR1150695	ENSRNOT00000011880.6	Cyp2d4	ENSRNOG0000032261	cytochrome P450, family 2, subfamily d, polypeptide 4 Source RGD Symbol Acc 620640
C03	SBR1157610	ENSRNOT00000078080.1	Cyp2e1	ENSRNOG0000012458	cytochrome P450, family 2, subfamily e, polypeptide 1 Source RGD Symbol Acc 2475
C04	SBR1182366	ENSRNOT00000068690.3	Cyp2f4	ENSRNOG0000032805	cytochrome P450, family 2, subfamily f, polypeptide 4 Source RGD Symbol Acc 2476
C05	SBR1153944	ENSRNOT00000076813.1	AABR07035374.1	ENSRNOG0000000978	
C06	SBR1186277	ENSRNOT00000013321.6	Cyp4b1	ENSRNOG0000055078	cytochrome P450, family 4, subfamily b, polypeptide 1 Source RGD Symbol Acc 2480
C07	SBR1177796	ENSRNOT00000012819.4	Cyp7a1	ENSRNOG0000009488	cytochrome P450 family 7 subfamily A member 1 Source RGD Symbol Acc 2482
C08	SBR1188185	ENSRNOT00000013116.6	Cyp7b1	ENSRNOG0000009730	cytochrome P450 family 7 subfamily B member 1 Source RGD Symbol Acc 2483
C09	SBR1110081	ENSRNOT00000010061.3	Dnaja1	ENSRNOG0000007029	DnaJ heat shock protein family (Hsp40) member A1 Source RGD Symbol Acc 620942
C10	SBR1137505	ENSRNOT00000022573.5	Dnaja2	ENSRNOG0000016251	DnaJ heat shock protein family (Hsp40) member A2 Source RGD Symbol Acc 71001
		ENSRNOT000000		ENSRNOG00	DnaJ heat shock protein family (Hsp40) member A3 Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1146904	081596.1	Dnaja3	000003855	1306527
C12	SBR1195653	ENSRNOT00000017053.4	Dnaja4	ENSRNOG0000012106	DnaJ heat shock protein family (Hsp40) member A4 Source RGD Symbol Acc 1310035
D01	SBR1139977	ENSRNOT00000038879.5	Dnajb1	ENSRNOG0000021824	DnaJ heat shock protein family (Hsp40) member B1 Source RGD Symbol Acc 1304725
D02	SBR1179467	ENSRNOT00000002462.6	Dnajb11	ENSRNOG0000001803	DnaJ heat shock protein family (Hsp40) member B11 Source RGD Symbol Acc 1307373
D03	SBR1126205	ENSRNOT00000044805.3	Dnajb12	ENSRNOG0000030408	DnaJ heat shock protein family (Hsp40) member B12 Source RGD Symbol Acc 1359677
D04	SBR1129220	ENSRNOT00000017381.6	Dnajb4	ENSRNOG0000013011	DnaJ heat shock protein family (Hsp40) member B4 Source RGD Symbol Acc 1305826
D05	SBR1129655	ENSRNOT00000080082.1	Dnajb5	ENSRNOG0000000130	DnaJ heat shock protein family (Hsp40) member B5 Source RGD Symbol Acc 1307453
D06	SBR1107753	ENSRNOT00000035996.3	Dnajb6	ENSRNOG0000010353	DnaJ heat shock protein family (Hsp40) member B6 Source RGD Symbol Acc 1308207
D07	SBR1109895	ENSRNOT00000005363.5	Dnajb9	ENSRNOG0000004006	DnaJ heat shock protein family (Hsp40) member B9 Source RGD Symbol Acc 3070
D08	SBR1196421	ENSRNOT00000000162.7	Dnajc1	ENSRNOG0000000150	DnaJ heat shock protein family (Hsp40) member C1 Source RGD Symbol Acc 2322144
D09	SBR1192355	ENSRNOT00000087285.1	Dnajc4	ENSRNOG0000043060	DnaJ heat shock protein family (Hsp40) member C4 Source RGD Symbol Acc 1308693
D10	SBR1174689	ENSRNOT00000020581.3	Dnajc5	ENSRNOG0000015202	DnaJ heat shock protein family (Hsp40) member C5 Source RGD Symbol Acc 620516
D11	SBR1107699	ENSRNOT00000086539.1	Dnajc6	ENSRNOG0000052887	DnaJ heat shock protein family (Hsp40) member C6 Source RGD Symbol Acc 1309900
D12	SBR1183448	ENSRNOT00000024321.6	Dnajc7	ENSRNOG0000017781	DnaJ heat shock protein family (Hsp40) member C7 Source RGD Symbol Acc 1303226
E01	SBR1212754	ENSRNOT00000017740.6	Dnajc8	ENSRNOG0000013255	DnaJ heat shock protein family (Hsp40) member C8 Source RGD Symbol Acc 1306024
E02	SBR1186289	ENSRNOT00000009009.5	Dnajc9	ENSRNOG0000006619	DnaJ heat shock protein family (Hsp40) member C9 Source RGD Symbol Acc 1305009
E03	SBR1172349	ENSRNOT00000023385.7	Ephx2	ENSRNOG0000017286	epoxide hydrolase 2 Source RGD Symbol Acc 620732
E04	SBR1110436	ENSRNOT00000041908.3	Fmo1	ENSRNOG0000034191	flavin containing monooxygenase 1 Source RGD Symbol Acc 2622
E05	SBR1128603	ENSRNOT00000004599.5	Fmo4	ENSRNOG0000003400	flavin containing monooxygenase 4 Source RGD Symbol Acc 628601
E06	SBR1179307	ENSRNOT00000024423.5	Fmo5	ENSRNOG0000018076	flavin containing monooxygenase 5 Source RGD Symbol Acc 628602
E07	SBR1185178	ENSRNOT00000073247.2	Gpx1	ENSRNOG0000048812	glutathione peroxidase 1 Source RGD Symbol Acc 2729
E08	SBR1133643	ENSRNOT00000080270.1	Gpx2	ENSRNOG0000055672	glutathione peroxidase 2 Source RGD Symbol Acc 727780
E09	SBR1141526	ENSRNOT00000020252.6	Gsr	ENSRNOG0000014915	glutathione-disulfide reductase Source RGD Symbol Acc 621747
E10	SBR1159122	ENSRNOT00000018325.4	Gsta1	ENSRNOG0000013484	glutathione S-transferase alpha 1 Source RGD Symbol Acc 2753
E11	SBR1138442	ENSRNOT00000022275.4	Gstk1	ENSRNOG0000016484	glutathione S-transferase kappa 1 Source RGD Symbol Acc 735188
E12	SBR1187255	ENSRNOT00000047139.3	Gstm1	ENSRNOG0000029726	glutathione S-transferase mu 1 Source RGD Symbol Acc 2755
F01	SBR1181824	ENSRNOT00000076367.2	Gsto1	ENSRNOG0000028746	glutathione S-transferase omega 1 Source RGD Symbol Acc 70952
F02	SBR1146734	ENSRNOT00000019192.6	Hmox1	ENSRNOG0000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
F03	SBR1107613	ENSRNOT00000005031.5	Hmox2	ENSRNOG0000003773	heme oxygenase 2 Source RGD Symbol Acc 67402
F04	SBR1135924	ENSRNOT00000049774.4	Hopx	ENSRNOG0000024689	HOP homeobox Source RGD Symbol Acc 621841
F05	SBR1187673	ENSRNOT00000024548.5	Hspa12a	ENSRNOG0000018019	heat shock protein family A (Hsp70) member 12A Source RGD Symbol Acc 1305531
F06	SBR1189015	ENSRNOT00000081924.1	Hspa1a	ENSRNOG0000050647	heat shock protein family A (Hsp70) member 1B Source RGD Symbol Acc 2840
F07	SBR1207127	ENSRNOT00000074223.2	Hspa1l	ENSRNOG0000047966	heat shock protein family A (Hsp70) member 1 like Source RGD Symbol Acc 1595925
F08	SBR1199480	ENSRNOT00000008504.5	Hspa2	ENSRNOG0000006472	heat shock protein family A member 2 Source RGD Symbol Acc 620664
F09	SBR1138708	ENSRNOT00000023628.3	Hspa4	ENSRNOG0000016596	heat shock protein family A member 4 Source RGD Symbol Acc 628878
F10	SBR1166340	ENSRNOT00000025067.6	Hspa5	ENSRNOG0000018294	heat shock protein family A member 5 Source RGD Symbol Acc 2843

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1135337	ENSRNOT00000026696.6	Hspa9	ENSRNOG00000019525	heat shock protein family A member 9 Source RGD Symbol Acc 1311806
F12	SBR1195680	ENSRNOT00000031555.5	Hspb1	ENSRNOG00000023546	heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306
G01	SBR1181093	ENSRNOT00000013960.2	Hspb2	ENSRNOG00000010402	heat shock protein family B (small) member 2 Source RGD Symbol Acc 70914
G02	SBR1187327	ENSRNOT00000014627.3	Hspb3	ENSRNOG00000010992	heat shock protein family B (small) member 3 Source RGD Symbol Acc 68345
G03	SBR1128872	ENSRNOT00000066589.2	Hspd1	ENSRNOG00000014525	heat shock protein family D member 1 Source RGD Symbol Acc 621314
G04	SBR1196587	ENSRNOT00000082300.1	Hspe1	ENSRNOG00000051624	heat shock protein family E member 1 Source RGD Symbol Acc 2844
G05	SBR1201432	ENSRNOT00000037890.4	Ppid	ENSRNOG00000027408	peptidylprolyl isomerase D Source RGD Symbol Acc 1303174
G06	SBR1138731	ENSRNOT00000022983.6	Serpinh1	ENSRNOG00000016831	serpin family H member 1 Source RGD Symbol Acc 69302
G07	SBR1136942	ENSRNOT00000002885.6	Sod1	ENSRNOG00000002115	superoxide dismutase 1 Source RGD Symbol Acc 3731
G08	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG00000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
G09	SBR1093914	ENSRNOT00000005155.3	Sod3	ENSRNOG00000003869	superoxide dismutase 3 Source RGD Symbol Acc 3733
G10	SBR1210230	ENSRNOT00000025925.3	St13	ENSRNOG00000019070	ST13, Hsp70 interacting protein Source RGD Symbol Acc 621312
G11	SBR1154694	ENSRNOT00000019531.4	Tcp1	ENSRNOG00000014160	t-complex 1 Source RGD Symbol Acc 3832
G12	SBR1150107	ENSRNOT00000009634.6	Xdh	ENSRNOG00000007081	xanthine dehydrogenase Source RGD Symbol Acc 62043
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.