

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

Rat Glucose Metabolism

Cat. no. 249950 SBRN-006ZA

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acly	Aco1	Aco2	Agl	Aldoa	Aldob	Aldoc	Bpgm	Cs	Dlat	Dld	Dlat
B	Eno1	Eno2	Eno3	Fbp1	Fbp2	Fh	G6pc	G6pc3	G6pd	Galm	Gapdh	Gapdhs
C	Gck	Gpi	Gsk3a	Gsk3b	Gys1	Gys2	H6pd	Hk2	Hk3	Idh1	Idh2	Idh3a
D	Idh3B	Idh3g	Mdh1	Mdh1b	Mdh2	Ogdhl	Pc	Pck1	Pck2	Pdha2	Pdhb	Pdhx
E	Pdk1	Pdk2	Pdk3	Pdk4	Pdp2	Pdpr	Pfkf	Pgam2	Pgk1	Pgk2	Pglx	Pgm1
F	Pgm2	Pgm3	Phka1	Phkb	Phkg1	Phkg2	Pklr	LOC314140	Prps11l	Pygl	Pygm	Rbks
G	Rpia	Sdha	Sdhb	Sdhc	Sdhd	Suc2a2	Suc2g1	Suc2g2	Taldo1	Tkt	Tpi1	Ugp2
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	SBR1145899	ENSRNOT00000023447.6	Acly	ENSRNOG0000016924	ATP citrate lyase Source RGD Symbol Acc 2018
A02	SBR1117511	ENSRNOT00000008337.4	Aco1	ENSRNOG0000005849	aconitase 1 Source RGD Symbol Acc 2019
A03	SBR1167843	ENSRNOT00000038612.5	Aco2	ENSRNOG0000024128	aconitase 2 Source RGD Symbol Acc 621360
A04	SBR1140645	ENSRNOT00000055735.2	Agl	ENSRNOG0000016214	amylo-alpha-1, 6-glucosidase, 4-alpha-glucanotransferase Source RGD Symbol Acc 1306376
A05	SBR1158667	ENSRNOT00000088473.1	Aldoa	ENSRNOG0000052802	aldolase, fructose-bisphosphate A Source RGD Symbol Acc 2089
A06	SBR1126524	ENSRNOT00000009111.5	Aldob	ENSRNOG0000006807	aldolase, fructose-bisphosphate B Source RGD Symbol Acc 2090
A07	SBR1139438	ENSRNOT00000046388.5	Aldoc	ENSRNOG0000011452	aldolase, fructose-bisphosphate C Source RGD Symbol Acc 2091
A08	SBR1153404	ENSRNOT00000013569.4	Bpgm	ENSRNOG0000010133	bisphosphoglycerate mutase Source RGD Symbol Acc 735018
A09	SBR1131298	ENSRNOT00000033726.5	Cs	ENSRNOG0000023520	citrate synthase Source RGD Symbol Acc 620330
A10	SBR1185239	ENSRNOT00000032152.4	Dlat	ENSRNOG0000009994	dihydrolipoamide S-acetyltransferase Source RGD Symbol Acc 619859
A11	SBR1206532	ENSRNOT00000008980.6	Dld	ENSRNOG0000006364	dihydrolipoamide dehydrogenase Source RGD Symbol Acc 735073
A12	SBR1115470	ENSRNOT00000007298.4	Dlst	ENSRNOG0000005061	dihydrolipoamide S-succinyltransferase Source RGD Symbol Acc 1359615
B01	SBR1196684	ENSRNOT00000081579.1	Eno1	ENSRNOG0000017895	enolase 1 Source RGD Symbol Acc 2553
B02	SBR1123014	ENSRNOT00000005601.4	Eno2	ENSRNOG0000013141	gamma-enolase-like Source RGD Symbol Acc 6491529
B03	SBR1102084	ENSRNOT00000005612.6	Eno3	ENSRNOG0000004078	enolase 3 Source RGD Symbol Acc 2555
B04	SBR1097930	ENSRNOT00000023685.6	Fbp1	ENSRNOG0000017597	fructose-bisphosphatase 1 Source RGD Symbol Acc 2595
B05	SBR1136505	ENSRNOT00000023865.3	Fbp2	ENSRNOG0000017637	fructose-bisphosphatase 2 Source RGD Symbol Acc 620930
B06	SBR1171665	ENSRNOT00000004917.5	Fh	ENSRNOG0000003653	fumarate hydratase Source RGD Symbol Acc 2614
B07	SBR1115882	ENSRNOT00000028033.6	G6pc	ENSRNOG0000051171	glucose-6-phosphatase, catalytic subunit Source RGD Symbol Acc 2644
B08	SBR1209165	ENSRNOT00000028375.5	G6pc3	ENSRNOG0000020902	glucose 6 phosphatase catalytic subunit 3 Source RGD Symbol Acc 727875
B09	SBR1179522	ENSRNOT00000008088.1	G6pd	ENSRNOG0000056728	glucose-6-phosphate dehydrogenase Source RGD Symbol Acc 2645
B10	SBR1174907	ENSRNOT00000009221.6	Galm	ENSRNOG0000007023	galactose mutarotase Source RGD Symbol Acc 1359459
B11	SBR1187830	ENSRNOT00000050443.4	Gapdh	ENSRNOG0000018630	glyceraldehyde-3-phosphate dehydrogenase Source RGD Symbol Acc 11369796
B12	SBR1151983	ENSRNOT00000067813.1	Gapdhs	ENSRNOG0000021009	glyceraldehyde-3-phosphate dehydrogenase, spermatogenic Source RGD Symbol Acc 620150
C01	SBR1114343	ENSRNOT00000080147.1	Gck	ENSRNOG0000061527	glucokinase Source RGD Symbol Acc 2670
C02	SBR1214960	ENSRNOT00000032613.4	Gpi	ENSRNOG0000023150	glucose-6-phosphate isomerase Source RGD Symbol Acc 2727
C03	SBR1194620	ENSRNOT00000027677.5	Gsk3a	ENSRNOG0000020417	glycogen synthase kinase 3 alpha Source RGD Symbol Acc 620351
C04	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C05	SBR1135273	ENSRNOT00000028271.3	Gys1	ENSRNOG0000020812	glycogen synthase 1 Source RGD Symbol Acc 1589798
C06	SBR1115079	ENSRNOT00000090122.1	Gys2	ENSRNOG0000059753	glycogen synthase 2 Source RGD Symbol Acc 2773
C07	SBR1212355	ENSRNOT00000023543.5	H6pd	ENSRNOG0000017523	hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) Source RGD Symbol Acc 1306562
C08	SBR1148823	ENSRNOT00000008813.3	Hk2	ENSRNOG0000006116	hexokinase 2 Source RGD Symbol Acc 2797
C09	SBR1100621	ENSRNOT00000079850.1	Hk3	ENSRNOG0000026235	hexokinase 3 Source RGD Symbol Acc 2798
C10	SBR1195467	ENSRNOT00000020322.5	Idh1	ENSRNOG0000015020	isocitrate dehydrogenase (NADP(+)) 1, cytosolic Source RGD Symbol Acc 2862
		ENSRNOT000000		ENSRNOG00	isocitrate dehydrogenase (NADP(+)) 2, mitochondrial Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1176735	019059.5	ldh2	000013949	1597139
C12	SBR1169330	ENSRNOT00000015102.4	ldh3a	ENSRNOG0000010277	isocitrate dehydrogenase 3 (NAD+) alpha Source RGD Symbol Acc 70889
D01	SBR1137808	ENSRNOT00000009681.6	ldh3B	ENSRNOG0000007316	isocitrate dehydrogenase 3 (NAD+) beta Source RGD Symbol Acc 621881
D02	SBR1165995	ENSRNOT00000081819.1	ldh3g	ENSRNOG0000055572	isocitrate dehydrogenase 3 (NAD), gamma Source RGD Symbol Acc 2863
D03	SBR1190057	ENSRNOT00000011429.7	Mdh1	ENSRNOG0000008103	malate dehydrogenase 1 Source RGD Symbol Acc 3072
D04	SBR1106666	ENSRNOT00000017207.5	Mdh1b	ENSRNOG0000012891	malate dehydrogenase 1B Source RGD Symbol Acc 1307874
D05	SBR1156204	ENSRNOT00000001958.4	Mdh2	ENSRNOG0000001440	malate dehydrogenase 2 Source RGD Symbol Acc 619719
D06	SBR1169200	ENSRNOT00000027054.5	Ogdhl	ENSRNOG0000019955	oxoglutarate dehydrogenase-like Source RGD Symbol Acc 1310916
D07	SBR1106396	ENSRNOT00000082388.1	Pc	ENSRNOG0000019372	pyruvate carboxylase Source RGD Symbol Acc 3262
D08	SBR1109122	ENSRNOT00000031586.6	Pck1	ENSRNOG0000028616	phosphoenolpyruvate carboxykinase 1 Source RGD Symbol Acc 3267
D09	SBR1137508	ENSRNOT00000025260.7	Pck2	ENSRNOG0000018536	phosphoenolpyruvate carboxykinase 2 (mitochondrial) Source MGI Symbol Acc MGI 1860456
D10	SBR1115921	ENSRNOT00000021719.6	Pdha2	ENSRNOG0000016223	pyruvate dehydrogenase E1 alpha 2 subunit Source RGD Symbol Acc 620095
D11	SBR1101202	ENSRNOT00000010545.4	Pdhb	ENSRNOG0000007895	pyruvate dehydrogenase E1 beta subunit Source RGD Symbol Acc 1359146
D12	SBR1117458	ENSRNOT00000088242.1	Pdhx	ENSRNOG0000006947	pyruvate dehydrogenase complex, component X Source RGD Symbol Acc 1566332
E01	SBR1201435	ENSRNOT00000002072.6	Pdk1	ENSRNOG0000001517	pyruvate dehydrogenase kinase 1 Source RGD Symbol Acc 69427
E02	SBR1216150	ENSRNOT00000005641.6	Pdk2	ENSRNOG0000004172	pyruvate dehydrogenase kinase 2 Source RGD Symbol Acc 69428
E03	SBR1176067	ENSRNOT00000017370.7	Pdk3	ENSRNOG0000012513	pyruvate dehydrogenase kinase 3 Source RGD Symbol Acc 1593276
E04	SBR1096444	ENSRNOT00000012760.4	Pdk4	ENSRNOG0000009565	pyruvate dehydrogenase kinase 4 Source RGD Symbol Acc 69061
E05	SBR1180582	ENSRNOT00000016462.5	Pdp2	ENSRNOG0000012343	pyruvate dehydrogenase phosphatase catalytic subunit 2 Source RGD Symbol Acc 628812
E06	SBR1185083	ENSRNOT00000038452.6	Pdpr	ENSRNOG0000022593	pyruvate dehydrogenase phosphatase regulatory subunit Source RGD Symbol Acc 1308307
E07	SBR1127317	ENSRNOT00000001625.5	Pfkf	ENSRNOG0000001214	phosphofructokinase, liver type Source RGD Symbol Acc 3311
E08	SBR1204174	ENSRNOT00000018227.7	Pgam2	ENSRNOG0000013532	phosphoglycerate mutase 2 Source RGD Symbol Acc 3313
E09	SBR1149927	ENSRNOT00000077604.1	Pgk1	ENSRNOG0000058249	phosphoglycerate kinase 1 Source RGD Symbol Acc 619878
E10	SBR1096478	ENSRNOT00000018177.5	Pgk2	ENSRNOG0000013600	phosphoglycerate kinase 2 Source RGD Symbol Acc 1306627
E11	SBR1109455	ENSRNOT00000024827.5	Pgls	ENSRNOG0000018326	6-phosphogluconolactonase Source RGD Symbol Acc 1307001
E12	SBR1117795	ENSRNOT00000013785.6	Pgm1	ENSRNOG0000009889	phosphoglucomutase 1 Source RGD Symbol Acc 3316
F01	SBR1106837	ENSRNOT00000002977.5	Pgm2	ENSRNOG0000002185	phosphoglucomutase 2 Source RGD Symbol Acc 1306061
F02	SBR1213962	ENSRNOT00000084694.1	Pgm3	ENSRNOG0000009515	phosphoglucomutase 3 Source RGD Symbol Acc 1305221
F03	SBR1152314	ENSRNOT00000076850.2	Phka1	ENSRNOG0000003063	phosphorylase kinase regulatory subunit alpha 1 Source RGD Symbol Acc 621522
F04	SBR1108043	ENSRNOT00000049624.4	Phkb	ENSRNOG0000024101	phosphorylase kinase regulatory subunit beta Source RGD Symbol Acc 620186
F05	SBR1094852	ENSRNOT00000001222.4	Phkg1	ENSRNOG0000000920	phosphorylase kinase catalytic subunit gamma 1 Source RGD Symbol Acc 3325
F06	SBR1149079	ENSRNOT00000025419.3	Phkg2	ENSRNOG0000018725	phosphorylase kinase catalytic subunit gamma 2 Source RGD Symbol Acc 620024
F07	SBR1145166	ENSRNOT00000027700.6	Pklr	ENSRNOG0000020420	pyruvate kinase L/R Source RGD Symbol Acc 3336
F08	SBR1153445	ENSRNOT00000078582.1	LOC314140	ENSRNOG0000060262	phosphoribosyl pyrophosphate synthetase 1 Source RGD Symbol Acc 61955
F09	SBR1204080	ENSRNOT00000052356.3	Prps1l1	ENSRNOG0000032513	phosphoribosyl pyrophosphate synthetase 1-like 1 Source RGD Symbol Acc 1306328
F10	SBR1211593	ENSRNOT00000009183.5	Pygl	ENSRNOG0000006388	glycogen phosphorylase L Source RGD Symbol Acc 620687

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1125387	ENSRNOT00000028636.5	Pygm	ENSRNOG00000021090	glycogen phosphorylase, muscle associated Source RGD Symbol Acc 3461
F12	SBR1107774	ENSRNOT00000006452.6	Rbks	ENSRNOG00000004710	ribokinase Source RGD Symbol Acc 1310064
G01	SBR1127115	ENSRNOT00000007927.5	Rpia	ENSRNOG00000005576	ribose 5-phosphate isomerase A Source RGD Symbol Acc 1311377
G02	SBR1203537	ENSRNOT00000018336.4	Sdha	ENSRNOG0000013331	succinate dehydrogenase complex flavoprotein subunit A Source RGD Symbol Acc 621557
G03	SBR1209354	ENSRNOT00000010593.7	Sdhb	ENSRNOG0000007967	succinate dehydrogenase complex iron sulfur subunit B Source RGD Symbol Acc 1308598
G04	SBR1116435	ENSRNOT00000004228.5	Sdhc	ENSRNOG00000003163	succinate dehydrogenase complex subunit C Source RGD Symbol Acc 1359454
G05	SBR1130802	ENSRNOT000000059169.2	Sdhd	ENSRNOG0000022980	succinate dehydrogenase complex subunit D Source RGD Symbol Acc 735231
G06	SBR1179739	ENSRNOT000000065195.3	SucLa2	ENSRNOG0000017481	succinate-CoA ligase ADP-forming beta subunit Source RGD Symbol Acc 1309397
G07	SBR1104904	ENSRNOT00000007624.4	SucLg1	ENSRNOG0000005587	succinate-CoA ligase, alpha subunit Source RGD Symbol Acc 619821
G08	SBR1126375	ENSRNOT000000068274.2	SucLg2	ENSRNOG0000005686	succinate-CoA ligase, GDP-forming, beta subunit Source RGD Symbol Acc 1305008
G09	SBR1107225	ENSRNOT000000024863.6	Taldo1	ENSRNOG0000018367	transaldolase 1 Source RGD Symbol Acc 620674
G10	SBR1156990	ENSRNOT000000021862.6	Tkt	ENSRNOG0000016064	transketolase Source RGD Symbol Acc 621036
G11	SBR1211463	ENSRNOT000000020647.6	Tpi1	ENSRNOG0000015290	triosephosphate isomerase 1 Source RGD Symbol Acc 3896
G12	SBR1180633	ENSRNOT000000067668.3	Ugp2	ENSRNOG0000008079	UDP-glucose pyrophosphorylase 2 Source RGD Symbol Acc 1310210
H01	SBR1220567	ENSRNOT000000042459.4	Actb	ENSRNOG00000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT000000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT000000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT000000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT000000018820.5	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 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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