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

Rat Diabetes

Cat. no. 249950 SBRN-023ZA

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	Ace	Acly	Adra1a	Adrb3	Agt	Akt2	Aqp2	Ccl5	Insr	Cd28	Ceacam1	Cebpa
B	Ctla4	Dpp4	Dusp4	Enpp1	Fbp1	Foxc2	Foxg1	Foxp3	G6pc	Gcg	Gcgr	Gck
C	Glp1r	Gpd1	Gsk3b	Hmox1	Hnf1b	Hnf4a	Icam1	Ide	Ifng	Igfbp5	Ikbkb	Il10
D	Il12b	Il4r	Il6	Inppl1	Ins1	Irs1	Irs2	Mapk14	Mapk8	Neurod1	Nfkb1	Nkx2-1
E	Nos3	Nrf1	Nsf	Parp1	Pdx1	Pik3cd	Pik3r1	Ppara	Pparg	Ppargc1a	Ptpn1	Pygl
F	Rab4a	Retn	Sell	Serpine1	Slc14a2	Slc2a4	AABR07053516.1	Snap25	Sod2	Srebf1	Stx4	Stxbp1
G	Stxbp2	Stxbp4	Tgfb1	LOC103694380	Tnfrsf1a	Tnfrsf1b	Trib3	Ucp2	Vamp2	Vamp3	Vapa	Vegfa
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	SBR1133139	ENSRNOT00000010627.8	Ace	ENSRNOG00000062101	angiotensin I converting enzyme Source RGD Symbol Acc 2493
A02	SBR1145899	ENSRNOT00000023447.6	Acly	ENSRNOG00000016924	ATP citrate lyase Source RGD Symbol Acc 2018
A03	SBR1152290	ENSRNOT00000012736.3	Adra1a	ENSRNOG00000009522	adrenoceptor alpha 1A Source RGD Symbol Acc 2055
A04	SBR1209022	ENSRNOT00000016907.2	Adrb3	ENSRNOG00000012674	adrenoceptor beta 3 Source RGD Symbol Acc 2061
A05	SBR1195605	ENSRNOT00000024917.4	Agt	ENSRNOG00000018445	angiotensinogen Source RGD Symbol Acc 2069
A06	SBR1190995	ENSRNOT00000025303.3	Akt2	ENSRNOG00000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A07	SBR1138109	ENSRNOT00000091717.1	Aqp2	ENSRNOG00000054378	aquaporin 2 Source RGD Symbol Acc 2142
A08	SBR1094349	ENSRNOT00000014865.6	Ccl5	ENSRNOG00000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
A09	SBR1131460	ENSRNOT00000041155.3	Insr	ENSRNOG00000029986	insulin receptor Source RGD Symbol Acc 2917
A10	SBR1154388	ENSRNOT00000013701.3	Cd28	ENSRNOG00000010283	Cd28 molecule Source RGD Symbol Acc 2299
A11	SBR1118748	ENSRNOT00000051892.6	Ceacam1	ENSRNOG00000020578	carcinoembryonic antigen related cell adhesion molecule 1 Source RGD Symbol Acc 67396
A12	SBR1144323	ENSRNOT00000014517.5	Cebpa	ENSRNOG00000010918	CCAAT/enhancer binding protein alpha Source RGD Symbol Acc 2326
B01	SBR1126546	ENSRNOT00000088183.1	Ctla4	ENSRNOG00000054129	cytotoxic T-lymphocyte-associated protein 4 Source RGD Symbol Acc 61975
B02	SBR1131913	ENSRNOT00000085426.1	Dpp4	ENSRNOG00000030763	dipeptidylpeptidase 4 Source RGD Symbol Acc 2515
B03	SBR1195545	ENSRNOT00000016328.3	Dusp4	ENSRNOG00000011921	dual specificity phosphatase 4 Source RGD Symbol Acc 620625
B04	SBR1201724	ENSRNOT00000019519.6	Enpp1	ENSRNOG00000013994	ectonucleotide pyrophosphatase/phosphodiesterase 1 Source RGD Symbol Acc 628825
B05	SBR1097930	ENSRNOT00000023685.6	Fbp1	ENSRNOG00000017597	fructose-bisphosphatase 1 Source RGD Symbol Acc 2595
B06	SBR1124840	ENSRNOT00000072369.1	Foxc2	ENSRNOG00000047446	forkhead box C2 Source RGD Symbol Acc 621703
B07	SBR1113024	ENSRNOT00000075349.1	Foxg1	ENSRNOG00000047891	forkhead box G1 Source RGD Symbol Acc 2619
B08	SBR1152159	ENSRNOT00000091146.1	Foxp3	ENSRNOG00000011702	forkhead box P3 Source RGD Symbol Acc 1562112
B09	SBR1115882	ENSRNOT00000028033.6	G6pc	ENSRNOG00000051171	glucose-6-phosphatase, catalytic subunit Source RGD Symbol Acc 2644
B10	SBR1140458	ENSRNOT00000007356.4	Gcg	ENSRNOG00000005498	glucagon Source RGD Symbol Acc 2668
B11	SBR1141470	ENSRNOT00000054962.2	Gcgr	ENSRNOG00000036692	glucagon receptor Source RGD Symbol Acc 2669
B12	SBR1114343	ENSRNOT00000080147.1	Gck	ENSRNOG00000061527	glucokinase Source RGD Symbol Acc 2670
C01	SBR1107659	ENSRNOT00000079509.1	Glp1r	ENSRNOG00000001152	glucagon-like peptide 1 receptor Source RGD Symbol Acc 2703
C02	SBR1212899	ENSRNOT00000087662.1	Gpd1	ENSRNOG00000056457	glycerol-3-phosphate dehydrogenase 1 Source RGD Symbol Acc 621381
C03	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG00000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C04	SBR1146734	ENSRNOT00000019192.6	Hmox1	ENSRNOG00000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
C05	SBR1169294	ENSRNOT00000047427.5	Hnf1b	ENSRNOG00000002598	HNF1 homeobox B Source RGD Symbol Acc 3830
C06	SBR1193762	ENSRNOT00000089893.1	Hnf4a	ENSRNOG00000008895	hepatocyte nuclear factor 4, alpha Source RGD Symbol Acc 2810
C07	SBR1152534	ENSRNOT00000028066.5	Icam1	ENSRNOG00000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
C08	SBR1146755	ENSRNOT00000085303.1	Ide	ENSRNOG00000016833	insulin degrading enzyme Source RGD Symbol Acc 2861
C09	SBR1108917	ENSRNOT00000009919.2	Ifng	ENSRNOG00000007468	interferon gamma Source RGD Symbol Acc 2866
C10	SBR1137301	ENSRNOT00000079493.1	Igfbp5	ENSRNOG00000017206	insulin-like growth factor binding protein 5 Source RGD Symbol Acc 2876
		ENSRNOT00000		ENSRNOG00	inhibitor of nuclear factor kappa B kinase subunit beta Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1133299	025851.4	Ikbkb	000019073	621375
C12	SBR1123238	ENSRNOT00000006246.5	Il10	ENSRNOG00000004647	interleukin 10 Source RGD Symbol Acc 2886
D01	SBR1133771	ENSRNOT00000005898.6	Il12b	ENSRNOG00000004380	interleukin 12B Source RGD Symbol Acc 628704
D02	SBR1170720	ENSRNOT00000020994.5	Il4r	ENSRNOG00000015441	interleukin 4 receptor Source RGD Symbol Acc 2899
D03	SBR1156877	ENSRNOT00000013732.6	Il6	ENSRNOG00000010278	interleukin 6 Source RGD Symbol Acc 2901
D04	SBR1188042	ENSRNOT00000092952.1	Inppl1	ENSRNOG00000019730	inositol polyphosphate phosphatase-like 1 Source RGD Symbol Acc 68396
D05	SBR1148811	ENSRNOT00000016052.5	Ins1	ENSRNOG00000012052	insulin 1 Source RGD Symbol Acc 2915
D06	SBR1132302	ENSRNOT00000019579.5	Irs1	ENSRNOG00000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D07	SBR1110764	ENSRNOT00000032918.6	Irs2	ENSRNOG00000023509	insulin receptor substrate 2 Source RGD Symbol Acc 69316
D08	SBR1149566	ENSRNOT00000000618.6	Mapk14	ENSRNOG00000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
D09	SBR1144517	ENSRNOT00000065216.3	Mapk8	ENSRNOG00000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
D10	SBR1108704	ENSRNOT00000007662.7	Neurod1	ENSRNOG00000005609	neuronal differentiation 1 Source RGD Symbol Acc 3165
D11	SBR1111134	ENSRNOT00000036838.4	Nfkb1	ENSRNOG00000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
D12	SBR1105938	ENSRNOT00000011453.5	Nkx2-1	ENSRNOG00000008644	NK2 homeobox 1 Source RGD Symbol Acc 3866
E01	SBR1203756	ENSRNOT00000013058.4	Nos3	ENSRNOG00000009348	nitric oxide synthase 3 Source RGD Symbol Acc 3186
E02	SBR1198048	ENSRNOT00000080173.1	Nrf1	ENSRNOG00000008752	nuclear respiratory factor 1 Source RGD Symbol Acc 1304603
E03	SBR1209794	ENSRNOT00000006361.6	Nsf	ENSRNOG00000003905	N-ethylmaleimide sensitive factor, vesicle fusing ATPase Source RGD Symbol Acc 621594
E04	SBR1161994	ENSRNOT00000004232.5	Parp1	ENSRNOG00000003084	poly (ADP-ribose) polymerase 1 Source RGD Symbol Acc 2053
E05	SBR1185476	ENSRNOT00000071942.1	Pdx1	ENSRNOG00000046458	pancreatic and duodenal homeobox 1 Source RGD Symbol Acc 62387
E06	SBR1143206	ENSRNOT00000066179.2	Pik3cd	ENSRNOG00000016846	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta Source RGD Symbol Acc 1310990
E07	SBR1155861	ENSRNOT00000025687.7	Pik3r1	ENSRNOG00000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
E08	SBR1163064	ENSRNOT00000078928.1	Ppara	ENSRNOG00000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
E09	SBR1131520	ENSRNOT00000082969.1	Pparg	ENSRNOG00000008839	peroxisome proliferator-activated receptor gamma Source RGD Symbol Acc 3371
E10	SBR1191958	ENSRNOT00000006071.5	Ppargc1a	ENSRNOG00000004473	PPARG coactivator 1 alpha Source RGD Symbol Acc 620925
E11	SBR1146496	ENSRNOT00000014309.4	Ptpn1	ENSRNOG00000010574	protein tyrosine phosphatase, non-receptor type 1 Source RGD Symbol Acc 61965
E12	SBR1211593	ENSRNOT00000009183.5	Pygl	ENSRNOG00000006388	glycogen phosphorylase L Source RGD Symbol Acc 620687
F01	SBR1116311	ENSRNOT00000049337.5	Rab4a	ENSRNOG00000017467	RAB4A, member RAS oncogene family Source RGD Symbol Acc 3529
F02	SBR1120413	ENSRNOT00000091197.1	Retn	ENSRNOG00000001001	resistin Source RGD Symbol Acc 628781
F03	SBR1185190	ENSRNOT00000003733.6	Sell	ENSRNOG00000002776	selectin L Source RGD Symbol Acc 3655
F04	SBR1126485	ENSRNOT00000001916.2	Serpine1	ENSRNOG00000001414	serpin family E member 1 Source RGD Symbol Acc 3249
F05	SBR1161863	ENSRNOT00000078519.1	Slc14a2	ENSRNOG00000056021	solute carrier family 14 member 2 Source RGD Symbol Acc 3689
F06	SBR1096562	ENSRNOT00000023256.5	Slc2a4	ENSRNOG00000017226	solute carrier family 2 member 4 Source RGD Symbol Acc 2711
F07	SBR1189146	ENSRNOT00000074392.2	AABR07053516.1	ENSRNOG00000050552	
F08	SBR1179849	ENSRNOT00000007998.7	Snap25	ENSRNOG00000006037	synaptosomal-associated protein 25 Source MGI Symbol Acc MGI 98331
F09	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG00000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
F10	SBR1114531	ENSRNOT00000047053.6	Srebf1	ENSRNOG00000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1099318	ENSRNOT00000082121.1	Stx4	ENSRNOG00000019302	syntaxin 4 Source RGD Symbol Acc 621019
F12	SBR1191952	ENSRNOT00000021178.8	Stxbp1	ENSRNOG00000015420	syntaxin binding protein 1 Source RGD Symbol Acc 3785
G01	SBR1212663	ENSRNOT00000001322.4	Stxbp2	ENSRNOG00000000994	syntaxin binding protein 2 Source RGD Symbol Acc 619967
G02	SBR1187046	ENSRNOT00000041119.5	Stxbp4	ENSRNOG00000032768	syntaxin binding protein 4 Source RGD Symbol Acc 1307903
G03	SBR1143485	ENSRNOT00000028051.4	Tgfb1	ENSRNOG00000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
G04	SBR1187845	ENSRNOT00000079677.1	LOC103694380	ENSRNOG00000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G05	SBR1130829	ENSRNOT00000048529.4	Tnfrsf1a	ENSRNOG00000031312	TNF receptor superfamily member 1A Source RGD Symbol Acc 621237
G06	SBR1111098	ENSRNOT00000022478.4	Tnfrsf1b	ENSRNOG00000016575	TNF receptor superfamily member 1B Source RGD Symbol Acc 621238
G07	SBR1167135	ENSRNOT00000009840.5	Trib3	ENSRNOG00000007319	tribbles pseudokinase 3 Source RGD Symbol Acc 708432
G08	SBR1104067	ENSRNOT00000024156.5	Ucp2	ENSRNOG00000017854	uncoupling protein 2 Source RGD Symbol Acc 3932
G09	SBR1113046	ENSRNOT00000057295.3	Vamp2	ENSRNOG00000006989	vesicle-associated membrane protein 2 Source RGD Symbol Acc 3949
G10	SBR1199708	ENSRNOT00000051554.4	Vamp3	ENSRNOG00000030055	vesicle-associated membrane protein 3 Source RGD Symbol Acc 61880
G11	SBR1144015	ENSRNOT00000020681.6	Vapa	ENSRNOG00000014765	VAMP associated protein A Source RGD Symbol Acc 61803
G12	SBR1108862	ENSRNOT00000044163.4	Vegfa	ENSRNOG00000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
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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