

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

Rat Fatty Acid Metabolism

Cat. no. 249950 SBRN-007ZA

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	Acaa1a	Acaa2	Acad10	Acad11	Acad9	Acadl	Acadm	Acads	Acadsb	Acadvl	Acat1	Acat2
B	Acat12	Acat2	Acat3	Acat7	Acat8	Acat9	Acox1	Acox2	Acox3	Acsbg1	Acsbg2	Acsl1
C	Acsl3	Acsl4	Acsl5	Acsl6	Acsm2	Acsm3	Acsm4	Acsm5	Aldh2	Bdh1	Bdh2	Cpt1a
D	Cpt1b	Cpt1c	Cpt2	Crot	Crot	Deer1	Deer2	Echs1	Eci3	Ehhadh	Fabp1	Fabp2
E	Fabp3	Fabp4	Fabp5	Fabp6	Fabp7	Gedh	Gk	Gk2	Gpd1	Gpd2	Hadha	Hmgcl
F	Hmgcs1	Hmgcs2	Lipe	Lpl	Mcee	Mmut	Oxcl1	Pecr	Ppa1	Prkaa1	Prkaa2	Prkab1
G	Prkab2	Prkaca	Prkacb	Kmt2d	Prkag2	Prkag3	Slc27a1	Slc27a2	Slc27a3	Slc27a4	Slc27a5	Slc27a6
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	SBR1100911	ENSRNOT00000045049.5	Acaa1a	ENSRNOG00000032908	acetyl-CoA acyltransferase 1A Source RGD Symbol Acc 67379
A02	SBR1105194	ENSRNOT00000067018.3	Acaa2	ENSRNOG0000013766	acetyl-CoA acyltransferase 2 Source RGD Symbol Acc 620482
A03	SBR1107622	ENSRNOT00000057435.4	Acad10	ENSRNOG00000037815	acyl-CoA dehydrogenase family, member 10 Source RGD Symbol Acc 1310159
A04	SBR1111805	ENSRNOT00000081281.1	Acad11	ENSRNOG0000010940	acyl-CoA dehydrogenase family, member 11 Source RGD Symbol Acc 1306270
A05	SBR1164437	ENSRNOT00000019108.5	Acad9	ENSRNOG0000014178	acyl-CoA dehydrogenase family, member 9 Source RGD Symbol Acc 727973
A06	SBR1208722	ENSRNOT00000017686.7	Acadl	ENSRNOG0000012966	acyl-CoA dehydrogenase, long chain Source RGD Symbol Acc 2011
A07	SBR1212135	ENSRNOT00000013238.3	Acadm	ENSRNOG0000009845	acyl-CoA dehydrogenase medium chain Source RGD Symbol Acc 2012
A08	SBR1162928	ENSRNOT00000001556.4	Acads	ENSRNOG0000001177	acyl-CoA dehydrogenase short chain Source RGD Symbol Acc 620514
A09	SBR1202500	ENSRNOT00000027999.4	Acadsb	ENSRNOG0000020624	acyl-CoA dehydrogenase, short/branched chain Source RGD Symbol Acc 2013
A10	SBR1197686	ENSRNOT00000024973.6	Acadvl	ENSRNOG0000018114	acyl-CoA dehydrogenase, very long chain Source RGD Symbol Acc 2014
A11	SBR1119536	ENSRNOT00000010573.5	Acat1	ENSRNOG0000007862	acetyl-CoA acetyltransferase 1 Source RGD Symbol Acc 2016
A12	SBR1182816	ENSRNOT00000033408.5	Acat2	ENSRNOG0000019189	acetyl-CoA acetyltransferase 2 Source RGD Symbol Acc 1359366
B01	SBR1152257	ENSRNOT00000078919.1	Acot12	ENSRNOG00000061414	acyl-CoA thioesterase 12 Source RGD Symbol Acc 619752
B02	SBR1096238	ENSRNOT00000013515.5	Acot2	ENSRNOG0000010134	acyl-CoA thioesterase 2 Source RGD Symbol Acc 621055
B03	SBR1126918	ENSRNOT00000077555.1	Acot3	ENSRNOG00000053460	acyl-CoA thioesterase 3 Source RGD Symbol Acc 1564089
B04	SBR1160674	ENSRNOT00000014213.4	Acot7	ENSRNOG0000010580	acyl-CoA thioesterase 7 Source RGD Symbol Acc 628856
B05	SBR1173505	ENSRNOT00000020740.6	Acot8	ENSRNOG0000015187	acyl-CoA thioesterase 8 Source RGD Symbol Acc 70368
B06	SBR1114615	ENSRNOT00000005033.5	Acot9	ENSRNOG0000003782	acyl-CoA thioesterase 9 Source RGD Symbol Acc 1359188
B07	SBR1129649	ENSRNOT00000042372.6	Acox1	ENSRNOG0000008755	acyl-CoA oxidase 1 Source RGD Symbol Acc 619757
B08	SBR1171093	ENSRNOT00000010260.4	Acox2	ENSRNOG0000007378	acyl-CoA oxidase 2 Source RGD Symbol Acc 628684
B09	SBR1191393	ENSRNOT00000049798.3	Acox3	ENSRNOG0000008474	acyl-CoA oxidase 3, pristanoyl Source RGD Symbol Acc 69245
B10	SBR1162797	ENSRNOT00000016104.4	Acsbg1	ENSRNOG0000011381	acyl-CoA synthetase bubblegum family member 1 Source RGD Symbol Acc 708557
B11	SBR1099221	ENSRNOT00000074555.2	Acsbg2	ENSRNOG0000045947	acyl-CoA synthetase bubblegum family member 2 Source RGD Symbol Acc 1588580
B12	SBR1160500	ENSRNOT00000014235.3	Acs1	ENSRNOG0000010633	acyl-CoA synthetase long-chain family member 1 Source RGD Symbol Acc 2015
C01	SBR1174444	ENSRNOT00000020161.2	Acs13	ENSRNOG0000014718	acyl-CoA synthetase long-chain family member 3 Source RGD Symbol Acc 70552
C02	SBR1194850	ENSRNOT00000026057.6	Acs14	ENSRNOG0000019180	acyl-CoA synthetase long-chain family member 4 Source RGD Symbol Acc 69401
C03	SBR1205852	ENSRNOT00000022126.6	Acs15	ENSRNOG0000016265	acyl-CoA synthetase long-chain family member 5 Source RGD Symbol Acc 69402
C04	SBR1146743	ENSRNOT00000030760.4	Acs16	ENSRNOG0000026745	acyl-CoA synthetase long-chain family member 6 Source RGD Symbol Acc 69403
C05	SBR1144943	ENSRNOT00000055083.4	Acsm2	ENSRNOG0000042084	acyl-CoA synthetase medium-chain family member 1 Source RGD Symbol Acc 1306813
C06	SBR1151471	ENSRNOT00000020039.6	Acsm3	ENSRNOG0000032246	acyl-CoA synthetase medium-chain family member 3 Source RGD Symbol Acc 62086
C07	SBR1116721	ENSRNOT00000034610.4	Acsm4	ENSRNOG0000014726	acyl-CoA synthetase medium-chain family member 4 Source RGD Symbol Acc 727928
C08	SBR1102442	ENSRNOT00000049380.4	Acsm5	ENSRNOG0000031211	acyl-CoA synthetase medium-chain family member 5 Source RGD Symbol Acc 1309578
C09	SBR1166914	ENSRNOT00000001816.6	Aldh2	ENSRNOG0000001344	aldehyde dehydrogenase 2 family (mitochondrial) Source RGD Symbol Acc 69219
C10	SBR1126363	ENSRNOT00000002366.5	Bdh1	ENSRNOG0000001736	3-hydroxybutyrate dehydrogenase 1 Source RGD Symbol Acc 620131
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1116711	019507.5	Bdh2	000014490	3-hydroxybutyrate dehydrogenase 2 Source RGD Symbol Acc 1309898
C12	SBR1143879	ENSRNOT00000 019652.3	Cpt1a	ENSRNOG00 000014254	carnitine palmitoyltransferase 1A Source RGD Symbol Acc 2396
D01	SBR1162370	ENSRNOT00000 013985.3	Cpt1b	ENSRNOG00 000010438	carnitine palmitoyltransferase 1B Source RGD Symbol Acc 2397
D02	SBR1096054	ENSRNOT00000 035908.4	Cpt1c	ENSRNOG00 000026163	carnitine palmitoyltransferase 1c Source RGD Symbol Acc 1305384
D03	SBR1129520	ENSRNOT00000 016954.3	Cpt2	ENSRNOG00 000012443	carnitine palmitoyltransferase 2 Source RGD Symbol Acc 2398
D04	SBR1101110	ENSRNOT00000 065128.2	Crat	ENSRNOG00 000018145	carnitine O-acetyltransferase Source RGD Symbol Acc 1303031
D05	SBR1123997	ENSRNOT00000 091799.1	Crot	ENSRNOG00 000006779	carnitine O-octanoyltransferase Source RGD Symbol Acc 70908
D06	SBR1149465	ENSRNOT00000 011330.6	Decr1	ENSRNOG00 000008236	2,4-dienoyl-CoA reductase 1 Source RGD Symbol Acc 70999
D07	SBR1137364	ENSRNOT00000 077826.1	Decr2	ENSRNOG00 000050424	2,4-dienoyl-CoA reductase 2 Source RGD Symbol Acc 71002
D08	SBR1181117	ENSRNOT00000 025446.6	Echs1	ENSRNOG00 000018522	enoyl-CoA hydratase, mitochondrial-like Source RGD Symbol Acc 6494098
D09	SBR1207595	ENSRNOT00000 022022.6	Eci3	ENSRNOG00 000029549	enoyl-CoA delta isomerase 2 Source RGD Symbol Acc 1359427
D10	SBR1143596	ENSRNOT00000 002410.4	Ehhadh	ENSRNOG00 000001770	enoyl-CoA hydratase and 3-hydroxyacyl CoA dehydrogenase Source RGD Symbol Acc 621441
D11	SBR1208364	ENSRNOT00000 008840.5	Fabp1	ENSRNOG00 000006675	fatty acid binding protein 1 Source RGD Symbol Acc 2590
D12	SBR1102879	ENSRNOT00000 029871.3	Fabp2	ENSRNOG00 000024947	fatty acid binding protein 2 Source RGD Symbol Acc 2591
E01	SBR1147343	ENSRNOT00000 017325.5	Fabp3	ENSRNOG00 000012879	fatty acid binding protein 3 Source RGD Symbol Acc 69048
E02	SBR1104159	ENSRNOT00000 077311.1	Fabp4	ENSRNOG00 000010805	fatty acid binding protein 4 Source RGD Symbol Acc 69309
E03	SBR1194696	ENSRNOT00000 075493.2	Fabp5	ENSRNOG00 000049075	fatty acid binding protein 5 Source RGD Symbol Acc 70997
E04	SBR1147478	ENSRNOT00000 083910.1	Fabp6	ENSRNOG00 000003902	fatty acid binding protein 6 Source RGD Symbol Acc 2592
E05	SBR1212376	ENSRNOT00000 001079.5	Fabp7	ENSRNOG00 000008814	fatty acid binding protein 7 Source RGD Symbol Acc 69312
E06	SBR1132673	ENSRNOT00000 004570.5	Gcdh	ENSRNOG00 000003307	glutaryl-CoA dehydrogenase Source RGD Symbol Acc 1308829
E07	SBR1168527	ENSRNOT00000 064340.3	Gk	ENSRNOG00 000034116	glycerol kinase Source RGD Symbol Acc 70893
E08	SBR1099914	ENSRNOT00000 044244.4	Gk2	ENSRNOG00 000029397	glycerol kinase 2 Source RGD Symbol Acc 1303263
E09	SBR1212899	ENSRNOT00000 087662.1	Gpd1	ENSRNOG00 000056457	glycerol-3-phosphate dehydrogenase 1 Source RGD Symbol Acc 621381
E10	SBR1175325	ENSRNOT00000 044419.4	Gpd2	ENSRNOG00 000033824	glycerol-3-phosphate dehydrogenase 2 Source RGD Symbol Acc 2726
E11	SBR1110409	ENSRNOT00000 038649.6	Hadha	ENSRNOG00 000024629	hydroxyacyl-CoA dehydrogenase trifunctional multienzyme complex subunit alpha Source RGD Symbol Acc 620512
E12	SBR1196342	ENSRNOT00000 012853.6	Hmgcl	ENSRNOG00 000009422	3-hydroxy-3-methylglutaryl-CoA lyase Source RGD Symbol Acc 620554
F01	SBR1172529	ENSRNOT00000 023554.6	Hmgcs1	ENSRNOG00 000016552	3-hydroxy-3-methylglutaryl-CoA synthase 1 Source RGD Symbol Acc 70970
F02	SBR1109406	ENSRNOT00000 026121.7	Hmgcs2	ENSRNOG00 000019120	3-hydroxy-3-methylglutaryl-CoA synthase 2 Source RGD Symbol Acc 2804
F03	SBR1104445	ENSRNOT00000 027910.2	Lipe	ENSRNOG00 000020546	lipase E, hormone sensitive type Source RGD Symbol Acc 3010
F04	SBR1197775	ENSRNOT00000 016543.3	Lpl	ENSRNOG00 000012181	lipoprotein lipase Source RGD Symbol Acc 3017
F05	SBR1140636	ENSRNOT00000 021884.6	Mcee	ENSRNOG00 000016327	methylmalonyl CoA epimerase Source RGD Symbol Acc 1309966
F06	SBR1138131	ENSRNOT00000 075279.2	Mmut	ENSRNOG00 000050843	methylmalonyl-CoA mutase Source RGD Symbol Acc 1587662
F07	SBR1206467	ENSRNOT00000 065313.3	Oxct1	ENSRNOG00 000043094	3-oxoacid CoA transferase 1 Source RGD Symbol Acc 1584008
F08	SBR1119838	ENSRNOT00000 089283.1	Pecr	ENSRNOG00 000055295	peroxisomal trans-2-enoyl-CoA reductase Source RGD Symbol Acc 70925
F09	SBR1181965	ENSRNOT00000 000674.6	Ppa1	ENSRNOG00 000000557	pyrophosphatase (inorganic) 1 Source RGD Symbol Acc 1589773
F10	SBR1120460	ENSRNOT00000 017626.5	Prkaa1	ENSRNOG00 000012799	protein kinase AMP-activated catalytic subunit alpha 1 Source RGD Symbol Acc 3387

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1166352	ENSRNOT00000010680.3	Prkaa2	ENSRNOG0000007706	protein kinase AMP-activated catalytic subunit alpha 2 Source RGD Symbol Acc 620893
F12	SBR1162563	ENSRNOT00000001508.3	Prkab1	ENSRNOG0000001142	protein kinase AMP-activated non-catalytic subunit beta 1 Source RGD Symbol Acc 71057
G01	SBR1188517	ENSRNOT00000063783.2	Prkab2	ENSRNOG0000018166	protein kinase AMP-activated non-catalytic subunit beta 2 Source RGD Symbol Acc 620905
G02	SBR1139916	ENSRNOT00000041717.4	Prkaca	ENSRNOG0000005257	protein kinase cAMP-activated catalytic subunit alpha Source RGD Symbol Acc 3389
G03	SBR1138043	ENSRNOT00000068739.1	Prkacb	ENSRNOG0000004978	protein kinase cAMP-activated catalytic subunit beta Source RGD Symbol Acc 1310574
G04	SBR1161274	ENSRNOT00000083354.1	Kmf2d	ENSRNOG00000061499	protein kinase AMP-activated non-catalytic subunit gamma 1 Source RGD Symbol Acc 3388
G05	SBR1175590	ENSRNOT00000067183.3	Prkag2	ENSRNOG0000009085	protein kinase AMP-activated non-catalytic subunit gamma 2 Source RGD Symbol Acc 727782
G06	SBR1122356	ENSRNOT00000023365.5	Prkag3	ENSRNOG0000017248	protein kinase AMP-activated non-catalytic subunit gamma 3 Source RGD Symbol Acc 1308698
G07	SBR1215227	ENSRNOT00000024659.4	Slc27a1	ENSRNOG0000018170	solute carrier family 27 member 1 Source RGD Symbol Acc 620927
G08	SBR1149155	ENSRNOT00000067700.3	Slc27a2	ENSRNOG0000010128	solute carrier family 27 member 2 Source RGD Symbol Acc 71103
G09	SBR1113888	ENSRNOT00000020815.5	Slc27a3	ENSRNOG0000015421	solute carrier family 27 member 3 Source RGD Symbol Acc 1310605
G10	SBR1212504	ENSRNOT00000019500.6	Slc27a4	ENSRNOG0000014369	solute carrier family 27 member 4 Source RGD Symbol Acc 1307383
G11	SBR1180937	ENSRNOT00000026575.4	Slc27a5	ENSRNOG0000019626	solute carrier family 27 member 5 Source RGD Symbol Acc 708535
G12	SBR1178897	ENSRNOT00000077443.1	Slc27a6	ENSRNOG0000058193	solute carrier family 27 member 6 Source RGD Symbol Acc 1311977
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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