

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

Rat Fatty Acid Metabolism

Cat. no. 249950 SBRN-007ZR

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 | Acaa1a | Acaa2 | Acad10 | Acad11 | Acad9 | Acad1 | Acadm | Acads | Acadsb | Acadvl | Acat1 | Acat2 |
| B | Acat12 | Acat2 | Acat3 | Acat7 | Acat8 | Acat9 | Acox1 | Acox2 | Acox3 | Acsbg1 | Acsbg2 | Acs1 |
| C | Acs13 | Acs14 | Acs15 | Acs16 | 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 | Gcdh | Gk | Gk2 | Gpd1 | Gpd2 | Hadha | Hmgcl |
| F | Hmgcs1 | Hmgcs2 | Lipe | Lpl | Mcae | 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 | ENSRNOG0000032908 | 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 | ENSRNOG0000037815 | 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 | ENSRNOG0000061414 | 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 | ENSRNOG0000053460 | 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 | Acsl1 | ENSRNOG0000010633 | acyl-CoA synthetase long-chain family member 1 Source RGD Symbol Acc 2015 |
| C01 | SBR1174444 | ENSRNOT00000020161.2 | Acsl3 | ENSRNOG0000014718 | acyl-CoA synthetase long-chain family member 3 Source RGD Symbol Acc 70552 |
| C02 | SBR1194850 | ENSRNOT00000026057.6 | Acsl4 | ENSRNOG0000019180 | acyl-CoA synthetase long-chain family member 4 Source RGD Symbol Acc 69401 |
| C03 | SBR1205852 | ENSRNOT00000022126.6 | Acsl5 | ENSRNOG0000016265 | acyl-CoA synthetase long-chain family member 5 Source RGD Symbol Acc 69402 |
| C04 | SBR1146743 | ENSRNOT00000030760.4 | Acsl6 | 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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