

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

Rat Extracellular Matrix & Adhesion Molecules

Cat. no. 249950 SBRN-013ZR

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 | Adams1 | Adams2 | Adams5 | Adams8 | Ctnna1 | Cd44 | Cdh1 | Cdh2 | Cdh3 | Cdh4 | Cntn1 | Col1a1 |
| B | Col2a1 | Col3a1 | Col4a1 | Col4a2 | Col4a3 | Col5a1 | Col6a1 | Col8a1 | Ccn2 | Ctnna2 | Ctnnb1 | Ecm1 |
| C | Emilin1 | Entpd1 | Fbln1 | Fn1 | Hapln1 | Icam1 | Itga2 | Itga3 | Itga4 | Itga5 | Itgax | Itgae |
| D | Itgal | Itgad | Itgav | Itgb1 | Itgb2 | Itgb3 | Itgb4 | Lama1 | Lama2 | AABR0703119 3.1 | Lamb2 | Lamb3 |
| E | Lamc1 | Mmp10 | LOC1036948 74 | Mmp12 | Mmp13 | Mmp14 | Mmp15 | Mmp16 | Mmp1 | Mmp2 | Mmp3 | Mmp7 |
| F | Mmp8 | Mmp9 | Ncam1 | Ncam2 | Cdh12 | Postn | Sele | Sell | Selp | Sgce | Sparc | Spock1 |
| G | Spp1 | Syt1 | Tgfb1 | Thbs1 | Thbs2 | Timp1 | Timp2 | Timp3 | Tnc | Vcam1 | Vcan | Vtn |
| 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 | SBR1097825 | ENSRNOT0000002187.7 | Adams1 | ENSRNOG0000001607 | ADAM metalloproteinase with thrombospondin type 1 motif, 1 Source RGD Symbol Acc 621241 |
| A02 | SBR1190468 | ENSRNOT00000083568.1 | Adams2 | ENSRNOG00000061484 | ADAM metalloproteinase with thrombospondin type 1 motif, 2 Source RGD Symbol Acc 1565950 |
| A03 | SBR1130359 | ENSRNOT00000085444.1 | Adams5 | ENSRNOG00000057794 | ADAM metalloproteinase with thrombospondin type 1 motif, 5 Source RGD Symbol Acc 735196 |
| A04 | SBR1112445 | ENSRNOT00000007358.7 | Adams8 | ENSRNOG0000005574 | ADAM metalloproteinase with thrombospondin type 1 motif, 8 Source RGD Symbol Acc 1308511 |
| A05 | SBR1154761 | ENSRNOT00000008041.7 | Cttna1 | ENSRNOG00000005796 | catenin alpha 1 Source RGD Symbol Acc 1359485 |
| A06 | SBR1148883 | ENSRNOT00000009000.7 | Cd44 | ENSRNOG0000006094 | CD44 molecule (Indian blood group) Source RGD Symbol Acc 2307 |
| A07 | SBR1170192 | ENSRNOT00000027346.2 | Cdh1 | ENSRNOG00000020151 | cadherin 1 Source RGD Symbol Acc 69279 |
| A08 | SBR1148414 | ENSRNOT00000021170.6 | Cdh2 | ENSRNOG00000015602 | cadherin 2 Source RGD Symbol Acc 69280 |
| A09 | SBR1144284 | ENSRNOT00000027273.7 | Cdh3 | ENSRNOG00000020129 | cadherin 3 Source RGD Symbol Acc 621089 |
| A10 | SBR1109604 | ENSRNOT00000088026.1 | Cdh4 | ENSRNOG00000052405 | cadherin 4 Source NCBI gene Acc 114588 |
| A11 | SBR1197899 | ENSRNOT00000006219.4 | Cntn1 | ENSRNOG0000004438 | contactin 1 Source RGD Symbol Acc 621300 |
| A12 | SBR1113220 | ENSRNOT00000005311.6 | Col1a1 | ENSRNOG00000003897 | collagen type I alpha 1 chain Source RGD Symbol Acc 61817 |
| B01 | SBR1135343 | ENSRNOT00000086062.1 | Col2a1 | ENSRNOG00000058560 | collagen type II alpha 1 chain Source RGD Symbol Acc 2375 |
| B02 | SBR1150486 | ENSRNOT00000004956.4 | Col3a1 | ENSRNOG00000003357 | collagen type III alpha 1 chain Source RGD Symbol Acc 71029 |
| B03 | SBR1106782 | ENSRNOT00000057386.2 | Col4a1 | ENSRNOG00000016281 | collagen type IV alpha 1 chain Source RGD Symbol Acc 1307148 |
| B04 | SBR1191843 | ENSRNOT00000057461.4 | Col4a2 | ENSRNOG00000023972 | collagen type IV alpha 2 chain Source RGD Symbol Acc 1308085 |
| B05 | SBR1147922 | ENSRNOT00000020669.5 | Col4a3 | ENSRNOG00000015365 | collagen type IV alpha 3 chain Source RGD Symbol Acc 71085 |
| B06 | SBR1207090 | ENSRNOT00000086352.1 | Col5a1 | ENSRNOG00000008749 | collagen type V alpha 1 chain Source RGD Symbol Acc 70920 |
| B07 | SBR1156528 | ENSRNOT00000072951.2 | Col6a1 | ENSRNOG0000001249 | collagen type VI alpha 1 chain Source RGD Symbol Acc 1565398 |
| B08 | SBR1212958 | ENSRNOT00000060838.4 | Col8a1 | ENSRNOG00000039668 | collagen type VIII alpha 1 chain Source RGD Symbol Acc 1309361 |
| B09 | SBR1133606 | ENSRNOT00000089196.1 | Ccn2 | ENSRNOG00000015036 | cellular communication network factor 2 Source RGD Symbol Acc 621392 |
| B10 | SBR1110269 | ENSRNOT00000007971.7 | Cttna2 | ENSRNOG0000006003 | catenin alpha 2 Source RGD Symbol Acc 1305060 |
| B11 | SBR1143136 | ENSRNOT00000079085.1 | Cttnb1 | ENSRNOG00000054172 | catenin beta 1 Source RGD Symbol Acc 70487 |
| B12 | SBR1094272 | ENSRNOT00000028740.5 | Ecm1 | ENSRNOG00000021166 | extracellular matrix protein 1 Source RGD Symbol Acc 620357 |
| C01 | SBR1153818 | ENSRNOT00000010932.5 | Emilin1 | ENSRNOG00000008246 | elastin microfibril interfacier 1 Source RGD Symbol Acc 1311209 |
| C02 | SBR1166748 | ENSRNOT00000054719.4 | Entpd1 | ENSRNOG00000014574 | ectonucleoside triphosphate diphosphohydrolase 1 Source RGD Symbol Acc 69265 |
| C03 | SBR1202189 | ENSRNOT00000088042.1 | Fbln1 | ENSRNOG00000014137 | fibulin 1 Source RGD Symbol Acc 1308667 |
| C04 | SBR1178912 | ENSRNOT00000019772.6 | Fn1 | ENSRNOG00000014288 | fibronectin 1 Source RGD Symbol Acc 2624 |
| C05 | SBR1173059 | ENSRNOT00000042958.5 | Hapln1 | ENSRNOG00000032002 | hyaluronan and proteoglycan link protein 1 Source RGD Symbol Acc 2412 |
| C06 | SBR1152534 | ENSRNOT00000028066.5 | Icam1 | ENSRNOG00000020679 | intercellular adhesion molecule 1 Source RGD Symbol Acc 2857 |
| C07 | SBR1203459 | ENSRNOT00000077401.1 | Itga2 | ENSRNOG00000058111 | integrin subunit alpha 2 Source RGD Symbol Acc 621632 |
| C08 | SBR1140121 | ENSRNOT00000035894.7 | Itga3 | ENSRNOG00000004276 | integrin subunit alpha 3 Source RGD Symbol Acc 1310333 |
| C09 | SBR1153753 | ENSRNOT00000006880.6 | Itga4 | ENSRNOG00000004861 | integrin subunit alpha 4 Source RGD Symbol Acc 1593249 |
| C10 | SBR1211134 | ENSRNOT00000087748.1 | Itga5 | ENSRNOG00000057451 | integrin subunit alpha 5 Source RGD Symbol Acc 2925 |
| | | ENSRNOT000000 | | ENSRNOG00 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------------|--------------------|------------------------|---|
| C11 | SBR1156619 | 054983.4 | Itgax | 000036703 | integrin subunit alpha X Source RGD Symbol Acc 1561123 |
| C12 | SBR1147827 | ENSRNOT00000 077107.1 | Itgae | ENSRNOG00 000046639 | integrin subunit alpha E Source RGD Symbol Acc 621644 |
| D01 | SBR1127655 | ENSRNOT00000 024404.6 | Itgal | ENSRNOG00 000017980 | integrin subunit alpha L Source RGD Symbol Acc 631424 |
| D02 | SBR1114389 | ENSRNOT00000 086003.1 | Itgad | ENSRNOG00 000019728 | integrin subunit alpha M Source RGD Symbol Acc 2926 |
| D03 | SBR1162857 | ENSRNOT00000 006961.7 | Itgav | ENSRNOG00 000004912 | integrin subunit alpha V Source RGD Symbol Acc 1310613 |
| D04 | SBR1105686 | ENSRNOT00000 014785.5 | Itgb1 | ENSRNOG00 000010966 | integrin subunit beta 1 Source RGD Symbol Acc 2927 |
| D05 | SBR1182978 | ENSRNOT00000 001639.6 | Itgb2 | ENSRNOG00 000001224 | integrin subunit beta 2 Source RGD Symbol Acc 1305581 |
| D06 | SBR1124401 | ENSRNOT00000 073350.2 | Itgb3 | ENSRNOG00 000048449 | integrin subunit beta 3 Source RGD Symbol Acc 628868 |
| D07 | SBR1171569 | ENSRNOT00000 086747.1 | Itgb4 | ENSRNOG00 000005580 | integrin subunit beta 4 Source RGD Symbol Acc 2928 |
| D08 | SBR1129625 | ENSRNOT00000 023226.6 | Lama1 | ENSRNOG00 000017237 | laminin subunit alpha 1 Source RGD Symbol Acc 1307207 |
| D09 | SBR1101215 | ENSRNOT00000 079138.1 | Lama2 | ENSRNOG00 000011134 | laminin subunit alpha 2 Source RGD Symbol Acc 1308889 |
| D10 | SBR1107270 | ENSRNOT00000 015363.7 | AABR0703 1193.1 | ENSRNOG00 000011300 | laminin subunit alpha 3 Source NCBI gene Acc 307582 |
| D11 | SBR1124359 | ENSRNOT00000 072098.2 | Lamb2 | ENSRNOG00 000047768 | laminin subunit beta 2 Source RGD Symbol Acc 2988 |
| D12 | SBR1134562 | ENSRNOT00000 008440.6 | Lamb3 | ENSRNOG00 000006025 | laminin subunit beta 3 Source RGD Symbol Acc 1562668 |
| E01 | SBR1130089 | ENSRNOT00000 003605.7 | Lamc1 | ENSRNOG00 000002680 | laminin subunit gamma 1 Source RGD Symbol Acc 621052 |
| E02 | SBR1174575 | ENSRNOT00000 013119.4 | Mmp10 | ENSRNOG00 000032832 | matrix metalloproteinase 10 Source RGD Symbol Acc 620192 |
| E03 | SBR1102915 | ENSRNOT00000 031400.5 | LOC10369 4874 | ENSRNOG00 000028344 | stromelysin-3 Source RGD Symbol Acc 9106139 |
| E04 | SBR1186316 | ENSRNOT00000 011727.6 | Mmp12 | ENSRNOG00 000030187 | matrix metalloproteinase 12 Source RGD Symbol Acc 620195 |
| E05 | SBR1185175 | ENSRNOT00000 011507.5 | Mmp13 | ENSRNOG00 000008478 | matrix metalloproteinase 13 Source RGD Symbol Acc 620196 |
| E06 | SBR1119832 | ENSRNOT00000 075610.2 | Mmp14 | ENSRNOG00 000010947 | matrix metalloproteinase 14 Source RGD Symbol Acc 620198 |
| E07 | SBR1154423 | ENSRNOT00000 017629.6 | Mmp15 | ENSRNOG00 000012622 | matrix metalloproteinase 15 Source RGD Symbol Acc 1308937 |
| E08 | SBR1160530 | ENSRNOT00000 050137.5 | Mmp16 | ENSRNOG00 000005708 | matrix metalloproteinase 16 Source RGD Symbol Acc 620199 |
| E09 | SBR1179779 | ENSRNOT00000 012595.3 | Mmp1 | ENSRNOG00 000032353 | matrix metalloproteinase 1 Source RGD Symbol Acc 1307917 |
| E10 | SBR1120605 | ENSRNOT00000 022679.6 | Mmp2 | ENSRNOG00 000016695 | matrix metalloproteinase 2 Source RGD Symbol Acc 621316 |
| E11 | SBR1166091 | ENSRNOT00000 091704.1 | Mmp3 | ENSRNOG00 000032626 | matrix metalloproteinase 3 Source RGD Symbol Acc 621317 |
| E12 | SBR1116320 | ENSRNOT00000 014041.5 | Mmp7 | ENSRNOG00 000010507 | matrix metalloproteinase 7 Source RGD Symbol Acc 3100 |
| F01 | SBR1151242 | ENSRNOT00000 013936.3 | Mmp8 | ENSRNOG00 000009907 | matrix metalloproteinase 8 Source RGD Symbol Acc 631408 |
| F02 | SBR1206750 | ENSRNOT00000 023965.3 | Mmp9 | ENSRNOG00 000017539 | matrix metalloproteinase 9 Source RGD Symbol Acc 621320 |
| F03 | SBR1143497 | ENSRNOT00000 042281.6 | Ncam1 | ENSRNOG00 000031890 | neural cell adhesion molecule 1 Source RGD Symbol Acc 67378 |
| F04 | SBR1118977 | ENSRNOT00000 002895.7 | Ncam2 | ENSRNOG00 000002126 | neural cell adhesion molecule 2 Source RGD Symbol Acc 1303131 |
| F05 | SBR1188969 | ENSRNOT00000 034044.5 | Cdh12 | ENSRNOG00 000026392 | cadherin 12 Source RGD Symbol Acc 1566350 |
| F06 | SBR1157129 | ENSRNOT00000 017453.3 | Postn | ENSRNOG00 000012660 | periostin Source RGD Symbol Acc 1305285 |
| F07 | SBR1131931 | ENSRNOT00000 076757.1 | Sele | ENSRNOG00 000002723 | selectin E Source RGD Symbol Acc 3654 |
| F08 | SBR1185190 | ENSRNOT00000 003733.6 | Sell | ENSRNOG00 000002776 | selectin L Source RGD Symbol Acc 3655 |
| F09 | SBR1174453 | ENSRNOT00000 076879.2 | Selp | ENSRNOG00 000002794 | selectin P Source RGD Symbol Acc 3656 |
| F10 | SBR1210713 | ENSRNOT00000 074177.2 | Sgce | ENSRNOG00 000046905 | sarcoglycan, epsilon Source RGD Symbol Acc 1303201 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|----------------------|--------|-------------------|---|
| F11 | SBR1136268 | ENSRNOT00000017486.7 | Sparc | ENSRNOG0000012840 | secreted protein acidic and cysteine rich Source RGD Symbol Acc 3742 |
| F12 | SBR1165674 | ENSRNOT00000061187.3 | Spock1 | ENSRNOG0000012747 | sparc/osteonectin, cwcv and kazal like domains proteoglycan 1 Source RGD Symbol Acc 1311496 |
| G01 | SBR1210860 | ENSRNOT00000075989.1 | Spp1 | ENSRNOG0000043451 | secreted phosphoprotein 1 Source RGD Symbol Acc 3752 |
| G02 | SBR1160987 | ENSRNOT00000048880.2 | Syt1 | ENSRNOG0000006426 | synaptotagmin 1 Source RGD Symbol Acc 3803 |
| G03 | SBR1162645 | ENSRNOT00000016390.7 | Tgfb1 | ENSRNOG0000012216 | transforming growth factor, beta induced Source RGD Symbol Acc 620017 |
| G04 | SBR1160692 | ENSRNOT00000083351.1 | Thbs1 | ENSRNOG0000045829 | thrombospondin 1 Source RGD Symbol Acc 1588455 |
| G05 | SBR1212280 | ENSRNOT00000014552.7 | Thbs2 | ENSRNOG0000010529 | thrombospondin 2 Source RGD Symbol Acc 1310979 |
| G06 | SBR1154276 | ENSRNOT00000013745.7 | Timp1 | ENSRNOG0000010208 | TIMP metalloproteinase inhibitor 1 Source RGD Symbol Acc 621675 |
| G07 | SBR1123842 | ENSRNOT00000004290.4 | Timp2 | ENSRNOG0000003148 | TIMP metalloproteinase inhibitor 2 Source RGD Symbol Acc 61312 |
| G08 | SBR1140756 | ENSRNOT00000005746.5 | Timp3 | ENSRNOG0000004303 | TIMP metalloproteinase inhibitor 3 Source RGD Symbol Acc 3865 |
| G09 | SBR1205819 | ENSRNOT00000084563.1 | Tnc | ENSRNOG0000058645 | tenascin C Source RGD Symbol Acc 621057 |
| G10 | SBR1189462 | ENSRNOT00000077972.1 | Vcam1 | ENSRNOG0000014333 | vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952 |
| G11 | SBR1171946 | ENSRNOT00000063821.3 | Vcan | ENSRNOG0000029212 | versican Source RGD Symbol Acc 619940 |
| G12 | SBR1184358 | ENSRNOT00000039954.5 | Vtn | ENSRNOG0000010031 | vitronectin Source RGD Symbol Acc 3967 |
| 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.

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.