

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

Rat Synaptic Plasticity

Cat. no. 249950 SBRN-126ZR

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 | Adam10 | Adcy1 | Adcy8 | Akt1 | Arc | Bdnf | Camk2a | Camk2g | Cdh2 | Cebpb | Cebpd | Cnr1 |
| B | Creb1 | Crem | Dlg4 | Egr1 | Egr2 | Egr3 | Egr4 | Ephb2 | Fos | Gabra5 | Gnai1 | Gria1 |
| C | Gria2 | Gria3 | Gria4 | Grin1 | Grin2a | Grin2b | Grin2c | Grin2d | Grip1 | Grm1 | Grm2 | Grm3 |
| D | Grm4 | Grm5 | Grm7 | Grm8 | Homer1 | Igf1 | Inhba | Jun | Junb | Klf10 | Mapk1 | Mmp9 |
| E | Ncam1 | Nfk1 | Nfkib | Ngf | Ngfr | Nos1 | Nptx2 | Nr4a1 | Nrf3 | Nrf4 | Ntrk2 | Pcdh8 |
| F | Pick1 | Pim1 | Plat | Pfeg1 | Ppp1ca | Ppp1cc | Ppp1r14a | LOC103694903 | Ppp3ca | Prkca | Prkcg | AABR07006727.1 |
| G | Rab3a | Rela | Reln | Kif17 | Rgs2 | Rheb | AABR07044925.1 | Srf | Synpo | Timp1 | LOC103694380 | Ywhaq |
| 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 | SBR1129039 | ENSRNOT00000083255.1 | Adam10 | ENSRNOG0000054257 | ADAM metallopeptidase domain 10 Source RGD Symbol Acc 2032 |
| A02 | SBR1211599 | ENSRNOT00000088032.1 | Adcy1 | ENSRNOG0000059479 | adenylate cyclase 1 Source RGD Symbol Acc 1309318 |
| A03 | SBR1119638 | ENSRNOT00000006789.6 | Adcy8 | ENSRNOG0000004890 | adenylate cyclase 8 Source RGD Symbol Acc 2036 |
| A04 | SBR1163078 | ENSRNOT00000031164.3 | Akt1 | ENSRNOG0000028629 | AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081 |
| A05 | SBR1101095 | ENSRNOT00000076998.2 | Arc | ENSRNOG0000043465 | activity-regulated cytoskeleton-associated protein Source RGD Symbol Acc 62037 |
| A06 | SBR1172593 | ENSRNOT00000083542.1 | Bdnf | ENSRNOG0000047466 | brain-derived neurotrophic factor Source RGD Symbol Acc 2202 |
| A07 | SBR1215824 | ENSRNOT00000080177.1 | Camk2a | ENSRNOG0000018712 | calcium/calmodulin-dependent protein kinase II alpha Source RGD Symbol Acc 2261 |
| A08 | SBR1200638 | ENSRNOT00000065644.4 | Camk2g | ENSRNOG0000009783 | calcium/calmodulin-dependent protein kinase II gamma Source RGD Symbol Acc 621802 |
| A09 | SBR1148414 | ENSRNOT00000021170.6 | Cdh2 | ENSRNOG0000015602 | cadherin 2 Source RGD Symbol Acc 69280 |
| A10 | SBR1114232 | ENSRNOT00000083876.1 | Cebpb | ENSRNOG0000057347 | CCAAT/enhancer binding protein beta Source RGD Symbol Acc 2327 |
| A11 | SBR1129981 | ENSRNOT00000074586.2 | Cebpd | ENSRNOG0000050869 | CCAAT/enhancer binding protein delta Source RGD Symbol Acc 2328 |
| A12 | SBR1112580 | ENSRNOT00000010850.2 | Cnr1 | ENSRNOG0000008223 | cannabinoid receptor 1 Source RGD Symbol Acc 2369 |
| B01 | SBR1179341 | ENSRNOT00000049654.4 | Creb1 | ENSRNOG0000013412 | cAMP responsive element binding protein 1 Source RGD Symbol Acc 620218 |
| B02 | SBR1147022 | ENSRNOT00000020160.8 | Creml | ENSRNOG0000014900 | cAMP responsive element modulator Source RGD Symbol Acc 2402 |
| B03 | SBR1114299 | ENSRNOT00000068493.2 | Dlg4 | ENSRNOG0000018526 | discs large MAGUK scaffold protein 4 Source RGD Symbol Acc 68424 |
| B04 | SBR1216566 | ENSRNOT00000026303.4 | Egr1 | ENSRNOG0000019422 | early growth response 1 Source RGD Symbol Acc 2544 |
| B05 | SBR1213007 | ENSRNOT00000000792.4 | Egr2 | ENSRNOG0000000640 | early growth response 2 Source RGD Symbol Acc 621608 |
| B06 | SBR1171630 | ENSRNOT00000077072.2 | Egr3 | ENSRNOG0000017828 | early growth response 3 Source RGD Symbol Acc 2545 |
| B07 | SBR1216539 | ENSRNOT00000021097.3 | Egr4 | ENSRNOG0000015719 | early growth response 4 Source RGD Symbol Acc 2546 |
| B08 | SBR1096144 | ENSRNOT00000016983.7 | Ephb2 | ENSRNOG0000012531 | Eph receptor B2 Source RGD Symbol Acc 1564232 |
| B09 | SBR1110295 | ENSRNOT00000010712.3 | Fos | ENSRNOG0000008015 | Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626 |
| B10 | SBR1216599 | ENSRNOT00000093306.1 | Gabra5 | ENSRNOG0000010803 | gamma-aminobutyric acid type A receptor alpha 5 subunit Source RGD Symbol Acc 61859 |
| B11 | SBR1166173 | ENSRNOT00000091004.1 | Gnai1 | ENSRNOG0000057096 | G protein subunit alpha i1 Source RGD Symbol Acc 2713 |
| B12 | SBR1181304 | ENSRNOT00000073148.2 | Gria1 | ENSRNOG0000045816 | glutamate ionotropic receptor AMPA type subunit 1 Source RGD Symbol Acc 621531 |
| C01 | SBR1126470 | ENSRNOT00000077941.1 | Gria2 | ENSRNOG0000054204 | glutamate ionotropic receptor AMPA type subunit 2 Source RGD Symbol Acc 61862 |
| C02 | SBR1198346 | ENSRNOT00000029031.7 | Gria3 | ENSRNOG0000007682 | glutamate ionotropic receptor AMPA type subunit 3 Source RGD Symbol Acc 70958 |
| C03 | SBR1136765 | ENSRNOT00000081171.1 | Gria4 | ENSRNOG0000006957 | glutamate ionotropic receptor AMPA type subunit 4 Source RGD Symbol Acc 61863 |
| C04 | SBR1215394 | ENSRNOT00000044246.4 | Grin1 | ENSRNOG0000011726 | glutamate ionotropic receptor NMDA type subunit 1 Source RGD Symbol Acc 2736 |
| C05 | SBR1188957 | ENSRNOT00000044626.3 | Grin2a | ENSRNOG0000033942 | glutamate ionotropic receptor NMDA type subunit 2A Source RGD Symbol Acc 2737 |
| C06 | SBR1117521 | ENSRNOT00000011697.4 | Grin2b | ENSRNOG0000008766 | glutamate ionotropic receptor NMDA type subunit 2B Source RGD Symbol Acc 2738 |
| C07 | SBR1207332 | ENSRNOT00000004477.5 | Grin2c | ENSRNOG0000003280 | glutamate ionotropic receptor NMDA type subunit 2C Source RGD Symbol Acc 2739 |
| C08 | SBR1190738 | ENSRNOT00000028615.4 | Grin2d | ENSRNOG0000021063 | glutamate ionotropic receptor NMDA type subunit 2D Source RGD Symbol Acc 2740 |
| C09 | SBR1134823 | ENSRNOT00000088861.1 | Grip1 | ENSRNOG0000004013 | glutamate receptor interacting protein 1 Source RGD Symbol Acc 621667 |
| C10 | SBR1115900 | ENSRNOT00000044325.3 | Grm1 | ENSRNOG0000014290 | glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742 |
| | | ENSRNOT000000 | | ENSRNOG00 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|----------------------|--------------|--------------------|---|
| C11 | SBR1165238 | 017607.3 | Grm2 | 000013171 | glutamate metabotropic receptor 2 Source RGD Symbol Acc 2743 |
| C12 | SBR1095973 | ENSRNOT0000007572.7 | Grm3 | ENSRNOG0000005519 | glutamate metabotropic receptor 3 Source RGD Symbol Acc 2744 |
| D01 | SBR1182094 | ENSRNOT00000066115.3 | Grm4 | ENSRNOG0000000487 | glutamate metabotropic receptor 4 Source RGD Symbol Acc 2745 |
| D02 | SBR1162445 | ENSRNOT00000050639.2 | Grm5 | ENSRNOG0000016429 | glutamate metabotropic receptor 5 Source RGD Symbol Acc 2746 |
| D03 | SBR1096823 | ENSRNOT00000056570.3 | Grm7 | ENSRNOG0000005662 | glutamate metabotropic receptor 7 Source RGD Symbol Acc 619857 |
| D04 | SBR1099878 | ENSRNOT00000031714.4 | Grm8 | ENSRNOG0000021468 | glutamate metabotropic receptor 8 Source RGD Symbol Acc 619858 |
| D05 | SBR1121409 | ENSRNOT00000071804.3 | Homer1 | ENSRNOG0000047014 | homer scaffold protein 1 Source RGD Symbol Acc 628725 |
| D06 | SBR1185495 | ENSRNOT00000038780.6 | Igf1 | ENSRNOG0000004517 | insulin-like growth factor 1 Source RGD Symbol Acc 2868 |
| D07 | SBR1203713 | ENSRNOT00000019272.5 | Inhba | ENSRNOG0000014320 | inhibin subunit beta A Source RGD Symbol Acc 62074 |
| D08 | SBR1133226 | ENSRNOT00000011731.3 | Jun | ENSRNOG0000026293 | Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943 |
| D09 | SBR1195750 | ENSRNOT00000067780.3 | Junb | ENSRNOG0000042838 | JunB proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2944 |
| D10 | SBR1192101 | ENSRNOT00000008350.3 | Klf10 | ENSRNOG0000006118 | Kruppel-like factor 10 Source RGD Symbol Acc 621652 |
| D11 | SBR1202944 | ENSRNOT00000002533.7 | Mapk1 | ENSRNOG0000001849 | mitogen activated protein kinase 1 Source RGD Symbol Acc 70500 |
| D12 | SBR1206750 | ENSRNOT00000023965.3 | Mmp9 | ENSRNOG0000017539 | matrix metalloproteinase 9 Source RGD Symbol Acc 621320 |
| E01 | SBR1143497 | ENSRNOT00000042281.6 | Ncam1 | ENSRNOG00000031890 | neural cell adhesion molecule 1 Source RGD Symbol Acc 67378 |
| E02 | SBR1111134 | ENSRNOT00000036838.4 | Nfkb1 | ENSRNOG0000023258 | nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498 |
| E03 | SBR1138816 | ENSRNOT00000027212.5 | Nfkbib | ENSRNOG0000020063 | NFKB inhibitor beta Source RGD Symbol Acc 621887 |
| E04 | SBR1142365 | ENSRNOT00000078376.1 | Ngf | ENSRNOG0000016571 | nerve growth factor Source RGD Symbol Acc 1598328 |
| E05 | SBR1176511 | ENSRNOT00000007268.3 | Ngfr | ENSRNOG0000005392 | nerve growth factor receptor Source RGD Symbol Acc 3177 |
| E06 | SBR1157040 | ENSRNOT00000066810.3 | Nos1 | ENSRNOG0000001130 | nitric oxide synthase 1 Source RGD Symbol Acc 3184 |
| E07 | SBR1108140 | ENSRNOT00000001331.4 | Nptx2 | ENSRNOG0000001006 | neuronal pentraxin 2 Source RGD Symbol Acc 1309447 |
| E08 | SBR1104967 | ENSRNOT00000010171.4 | Nr4a1 | ENSRNOG0000007607 | nuclear receptor subfamily 4, group A, member 1 Source RGD Symbol Acc 620029 |
| E09 | SBR1142304 | ENSRNOT00000082009.1 | Nrf3 | ENSRNOG0000019716 | neurotrophin 3 Source RGD Symbol Acc 619728 |
| E10 | SBR1208936 | ENSRNOT00000028194.2 | Nrf4 | ENSRNOG0000020783 | neurotrophin 4 Source RGD Symbol Acc 3212 |
| E11 | SBR1097948 | ENSRNOT00000090914.1 | Ntrk2 | ENSRNOG0000018839 | neurotrophic receptor tyrosine kinase 2 Source RGD Symbol Acc 3213 |
| E12 | SBR1108360 | ENSRNOT00000017599.3 | Pcdh8 | ENSRNOG0000013101 | protocadherin 8 Source RGD Symbol Acc 69350 |
| F01 | SBR1216405 | ENSRNOT00000016077.6 | Pick1 | ENSRNOG0000011507 | protein interacting with PRKCA 1 Source RGD Symbol Acc 69437 |
| F02 | SBR1098014 | ENSRNOT00000000637.5 | Pim1 | ENSRNOG0000000529 | Pim-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3330 |
| F03 | SBR1162717 | ENSRNOT00000025763.6 | Plat | ENSRNOG0000019018 | plasminogen activator, tissue type Source RGD Symbol Acc 3342 |
| F04 | SBR1124010 | ENSRNOT00000078909.1 | Plcg1 | ENSRNOG0000051490 | phospholipase C, gamma 1 Source RGD Symbol Acc 3347 |
| F05 | SBR1178200 | ENSRNOT00000091680.1 | Ppp1ca | ENSRNOG0000018708 | protein phosphatase 1 catalytic subunit alpha Source RGD Symbol Acc 3375 |
| F06 | SBR1175749 | ENSRNOT00000078761.1 | Ppp1cc | ENSRNOG0000001269 | protein phosphatase 1 catalytic subunit gamma Source RGD Symbol Acc 3377 |
| F07 | SBR1187231 | ENSRNOT00000028070.3 | Ppp1r14a | ENSRNOG0000020676 | protein phosphatase 1, regulatory (inhibitor) subunit 14A Source RGD Symbol Acc 620536 |
| F08 | SBR1176421 | ENSRNOT00000007621.5 | LOC103694903 | ENSRNOG0000005389 | serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform Source RGD Symbol Acc 9257421 |
| F09 | SBR1162958 | ENSRNOT00000047975.5 | Ppp3ca | ENSRNOG0000009882 | protein phosphatase 3 catalytic subunit alpha Source RGD Symbol Acc 3382 |
| F10 | SBR1097570 | ENSRNOT00000055073.4 | Prkca | ENSRNOG0000003491 | protein kinase C, alpha Source RGD Symbol Acc 3395 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|-----------------------|----------------|-------------------|--|
| F11 | SBR1199108 | ENSRNOT00000080032.1 | Prkcg | ENSRNOG0000054371 | protein kinase C, gamma Source RGD Symbol Acc 3397 |
| F12 | SBR1193564 | ENSRNOT00000082874.1 | AABR07006727.1 | ENSRNOG0000052057 | |
| G01 | SBR1134885 | ENSRNOT00000026391.6 | Rab3a | ENSRNOG0000019433 | RAB3A, member RAS oncogene family Source RGD Symbol Acc 3528 |
| G02 | SBR1138204 | ENSRNOT00000045233.3 | Rela | ENSRNOG0000030888 | RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889 |
| G03 | SBR1110791 | ENSRNOT00000010521.8 | Reln | ENSRNOG0000021441 | reelin Source RGD Symbol Acc 3553 |
| G04 | SBR1149945 | ENSRNOT00000020215.5 | Kif17 | ENSRNOG0000014970 | kinesin family member 17 Source RGD Symbol Acc 1562511 |
| G05 | SBR1199490 | ENSRNOT00000005156.6 | Rgs2 | ENSRNOG0000003687 | regulator of G-protein signaling 2 Source RGD Symbol Acc 621665 |
| G06 | SBR1173372 | ENSRNOT000000071737.2 | Rheb | ENSRNOG0000050578 | Ras homolog, mTORC1 binding Source RGD Symbol Acc 621840 |
| G07 | SBR1134550 | ENSRNOT00000078739.1 | AABR07044925.1 | ENSRNOG0000051592 | sirtuin 1 Source NCBI gene Acc 309757 |
| G08 | SBR1136781 | ENSRNOT00000061430.3 | Srf | ENSRNOG0000018232 | serum response factor Source RGD Symbol Acc 1559787 |
| G09 | SBR1125566 | ENSRNOT00000064686.1 | Synpo | ENSRNOG0000019181 | synaptopodin Source RGD Symbol Acc 620668 |
| G10 | SBR1154276 | ENSRNOT00000013745.7 | Timp1 | ENSRNOG0000010208 | TIMP metallopeptidase inhibitor 1 Source RGD Symbol Acc 621675 |
| G11 | SBR1187845 | ENSRNOT00000079677.1 | LOC103694380 | ENSRNOG0000055156 | tumor necrosis factor-like Source RGD Symbol Acc 9404643 |
| G12 | SBR1135023 | ENSRNOT00000077786.1 | Ywhaq | ENSRNOG0000051650 | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta Source RGD Symbol Acc 3979 |
| 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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