

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

Human Neurotransmitter Receptors

Cat. no. 249950 SBHS-060ZA

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 | ADRA1A | ADRA1D | ADRA2A | ADRB2 | ADRB3 | AVPR1A | AVPR1B | BRS3 | CCKBR | CHRM1 | CHRM4 | CHRM5 |
| B | CHRNA3 | CHRNA4 | CHRNA5 | CHRNA6 | CHRNA7 | CHRNE | CNR1 | DRD1 | DRD2 | DRD5 | GABBR1 | GABBR2 |
| C | GABRA1 | GABRA2 | GABRA4 | GABRA5 | GABRA6 | GABRB1 | GABRB3 | GABRD | GABRE | GABRG1 | GABRG2 | GABRG3 |
| D | GABRQ | GABRR1 | GABRR2 | GCGR | GRIA1 | GRIA2 | GRIA3 | GRIK1 | GRIK2 | GRIK4 | GRIK5 | GRIN1 |
| E | GRIN2A | GRIN2B | GRIN2C | GRM1 | GRM3 | GRM4 | GRM5 | GRM6 | GRM7 | GRM8 | GRPR | HCRTR2 |
| F | HRH1 | HRH4 | HTR1A | HTR1B | HTR1D | HTR1F | HTR2A | HTR2C | HTR3A | HTR4 | HTR7 | NPY2R |
| G | NPY5R | NTSR2 | OXTR | PROKR2 | SCTR | SSTR1 | SSTR2 | SSTR4 | TACR1 | TACR2 | TACR3 | TSPO |
| H | ACTB | B2M | GAPDH | HPRT1 | RPLP0 | HGDC | QIC | QIC | QIC | PPC | PPC | PPC |

Gene table: QuantiNova LNA PCR Focus Panel

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------|--------|-----------------|--|
| A01 | SBH0604482 | ENST00000380573.3 | ADRA1A | ENSG00000120907 | adrenoceptor alpha 1A Source HGNC Symbol Acc HGNC 277 |
| A02 | SBH0314853 | ENST00000379453.5 | ADRA1D | ENSG00000171873 | adrenoceptor alpha 1D Source HGNC Symbol Acc HGNC 280 |
| A03 | SBH0531587 | ENST00000280155.3 | ADRA2A | ENSG00000150594 | adrenoceptor alpha 2A Source HGNC Symbol Acc HGNC 281 |
| A04 | SBH0519738 | ENST00000305988.5 | ADRB2 | ENSG00000169252 | adrenoceptor beta 2 Source HGNC Symbol Acc HGNC 286 |
| A05 | SBH0064559 | ENST00000345060.5 | ADRB3 | ENSG00000188778 | adrenoceptor beta 3 Source HGNC Symbol Acc HGNC 288 |
| A06 | SBH0085505 | ENST00000550940.1 | AVPR1A | ENSG00000166148 | arginine vasopressin receptor 1A Source HGNC Symbol Acc HGNC 895 |
| A07 | SBH0242752 | ENST00000367126.5 | AVPR1B | ENSG00000198049 | arginine vasopressin receptor 1B Source HGNC Symbol Acc HGNC 896 |
| A08 | SBH0439603 | ENST00000370648.4 | BRS3 | ENSG00000102239 | bombesin receptor subtype 3 Source HGNC Symbol Acc HGNC 1113 |
| A09 | SBH0114053 | ENST00000525014.1 | CCKBR | ENSG00000110148 | cholecystokinin B receptor Source HGNC Symbol Acc HGNC 1571 |
| A10 | SBH0096334 | ENST00000306960.4 | CHRM1 | ENSG00000168539 | cholinergic receptor muscarinic 1 Source HGNC Symbol Acc HGNC 1950 |
| A11 | SBH0034731 | ENST00000433765.3 | CHRM4 | ENSG00000180720 | cholinergic receptor muscarinic 4 Source HGNC Symbol Acc HGNC 1953 |
| A12 | SBH0124319 | ENST00000560035.1 | CHRM5 | ENSG00000184984 | cholinergic receptor muscarinic 5 Source HGNC Symbol Acc HGNC 1954 |
| B01 | SBH0584315 | ENST00000348639.7 | CHRNA3 | ENSG00000080644 | cholinergic receptor nicotinic alpha 3 subunit Source HGNC Symbol Acc HGNC 1957 |
| B02 | SBH0600422 | ENST00000627000.1 | CHRNA4 | ENSG00000101204 | cholinergic receptor nicotinic alpha 4 subunit Source HGNC Symbol Acc HGNC 1958 |
| B03 | SBH0034680 | ENST00000299565.9 | CHRNA5 | ENSG00000169684 | cholinergic receptor nicotinic alpha 5 subunit Source HGNC Symbol Acc HGNC 1959 |
| B04 | SBH0262593 | ENST00000276410.6 | CHRNA6 | ENSG00000147434 | cholinergic receptor nicotinic alpha 6 subunit Source HGNC Symbol Acc HGNC 15963 |
| B05 | SBH0585154 | ENST00000437966.3 | CHRNA7 | ENSG00000175344 | cholinergic receptor nicotinic alpha 7 subunit Source HGNC Symbol Acc HGNC 1960 |
| B06 | SBH0435606 | ENST00000649488.2 | CHRNE | ENSG00000108556 | cholinergic receptor nicotinic epsilon subunit Source HGNC Symbol Acc HGNC 1966 |
| B07 | SBH0064955 | ENST00000428600.2 | CNR1 | ENSG00000118432 | cannabinoid receptor 1 Source HGNC Symbol Acc HGNC 2159 |
| B08 | SBH0389175 | ENST00000393752.3 | DRD1 | ENSG00000184845 | dopamine receptor D1 Source HGNC Symbol Acc HGNC 3020 |
| B09 | SBH0344008 | ENST00000535984.1 | DRD2 | ENSG00000149295 | dopamine receptor D2 Source HGNC Symbol Acc HGNC 3023 |
| B10 | SBH0594176 | ENST00000304374.3 | DRD5 | ENSG00000169676 | dopamine receptor D5 Source HGNC Symbol Acc HGNC 3026 |
| B11 | SBH0467400 | ENST00000486434.1 | GABBR1 | ENSG00000204681 | gamma-aminobutyric acid type B receptor subunit 1 Source HGNC Symbol Acc HGNC 4070 |
| B12 | SBH0594090 | ENST00000634314.1 | GABBR2 | ENSG00000136928 | gamma-aminobutyric acid type B receptor subunit 2 Source HGNC Symbol Acc HGNC 4507 |
| C01 | SBH0635187 | ENST00000393943.10 | GABRA1 | ENSG00000022355 | gamma-aminobutyric acid type A receptor alpha1 subunit Source HGNC Symbol Acc HGNC 4075 |
| C02 | SBH0625160 | ENST00000514090.5 | GABRA2 | ENSG00000151834 | gamma-aminobutyric acid type A receptor alpha2 subunit Source HGNC Symbol Acc HGNC 4076 |
| C03 | SBH0042322 | ENST00000502874.1 | GABRA4 | ENSG00000109158 | gamma-aminobutyric acid type A receptor alpha4 subunit Source HGNC Symbol Acc HGNC 4078 |
| C04 | SBH0316016 | ENST00000400081.7 | GABRA5 | ENSG00000186297 | gamma-aminobutyric acid type A receptor alpha5 subunit Source HGNC Symbol Acc HGNC 4079 |
| C05 | SBH0561167 | ENST00000523217.5 | GABRA6 | ENSG00000145863 | gamma-aminobutyric acid type A receptor alpha6 subunit Source HGNC Symbol Acc HGNC 4080 |
| C06 | SBH0448214 | ENST00000510909.1 | GABRB1 | ENSG00000163288 | gamma-aminobutyric acid type A receptor beta1 subunit Source HGNC Symbol Acc HGNC 4081 |
| C07 | SBH0182587 | ENST00000541819.6 | GABRB3 | ENSG00000166206 | gamma-aminobutyric acid type A receptor beta3 subunit Source HGNC Symbol Acc HGNC 4083 |
| C08 | SBH0358366 | ENST00000640949.1 | GABRD | ENSG00000187730 | gamma-aminobutyric acid type A receptor delta subunit Source HGNC Symbol Acc HGNC 4084 |
| C09 | SBH0565970 | ENST00000370328.4 | GABRE | ENSG00000102287 | gamma-aminobutyric acid type A receptor epsilon subunit Source HGNC Symbol Acc HGNC 4085 |
| C10 | SBH0317313 | ENST00000295452.5 | GABRG1 | ENSG00000163285 | gamma-aminobutyric acid type A receptor gamma1 subunit Source HGNC Symbol Acc HGNC 4086 |
| | | ENST00000640 | | ENSG000000 | gamma-aminobutyric acid type A receptor gamma2 subunit Source HGNC |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------|--------|-----------------|---|
| C11 | SBH0291024 | 574.1 | GABRG2 | 113327 | Symbol Acc HGNC 4087 |
| C12 | SBH0607568 | ENST00000555083.5 | GABRG3 | ENSG00000182256 | gamma-aminobutyric acid type A receptor gamma3 subunit Source HGNC Symbol Acc HGNC 4088 |
| D01 | SBH0116154 | ENST00000598523.3 | GABRQ | ENSG00000268089 | gamma-aminobutyric acid type A receptor theta subunit Source HGNC Symbol Acc HGNC 14454 |
| D02 | SBH0510247 | ENST00000611484.4 | GABRR1 | ENSG00000146276 | gamma-aminobutyric acid type A receptor rho1 subunit Source HGNC Symbol Acc HGNC 4090 |
| D03 | SBH0137095 | ENST00000602432.1 | GABRR2 | ENSG00000111886 | gamma-aminobutyric acid type A receptor rho2 subunit Source HGNC Symbol Acc HGNC 4091 |
| D04 | SBH0344353 | ENST00000573428.1 | GCGR | ENSG00000215644 | glucagon receptor Source HGNC Symbol Acc HGNC 4192 |
| D05 | SBH0142065 | ENST00000518783.1 | GRIA1 | ENSG00000155511 | glutamate ionotropic receptor AMPA type subunit 1 Source HGNC Symbol Acc HGNC 4571 |
| D06 | SBH0300551 | ENST00000296526.12 | GRIA2 | ENSG00000120251 | glutamate ionotropic receptor AMPA type subunit 2 Source HGNC Symbol Acc HGNC 4572 |
| D07 | SBH0052841 | ENST00000611689.4 | GRIA3 | ENSG00000125675 | glutamate ionotropic receptor AMPA type subunit 3 Source HGNC Symbol Acc HGNC 4573 |
| D08 | SBH0604450 | ENST00000399907.5 | GRIK1 | ENSG00000171189 | glutamate ionotropic receptor kainate type subunit 1 Source HGNC Symbol Acc HGNC 4579 |
| D09 | SBH0051532 | ENST00000413795.5 | GRIK2 | ENSG00000164418 | glutamate ionotropic receptor kainate type subunit 2 Source HGNC Symbol Acc HGNC 4580 |
| D10 | SBH0567920 | ENST00000638419.1 | GRIK4 | ENSG00000149403 | glutamate ionotropic receptor kainate type subunit 4 Source HGNC Symbol Acc HGNC 4582 |
| D11 | SBH0069930 | ENST00000301218.8 | GRIK5 | ENSG00000105737 | glutamate ionotropic receptor kainate type subunit 5 Source HGNC Symbol Acc HGNC 4583 |
| D12 | SBH0229177 | ENST00000371559.8 | GRIN1 | ENSG00000176884 | glutamate ionotropic receptor NMDA type subunit 1 Source HGNC Symbol Acc HGNC 4584 |
| E01 | SBH0503624 | ENST00000636273.1 | GRIN2A | ENSG00000183454 | glutamate ionotropic receptor NMDA type subunit 2A Source HGNC Symbol Acc HGNC 4585 |
| E02 | SBH0549412 | ENST00000609686.3 | GRIN2B | ENSG00000273079 | glutamate ionotropic receptor NMDA type subunit 2B Source HGNC Symbol Acc HGNC 4586 |
| E03 | SBH0499611 | ENST00000347612.4 | GRIN2C | ENSG00000161509 | glutamate ionotropic receptor NMDA type subunit 2C Source HGNC Symbol Acc HGNC 4587 |
| E04 | SBH0643522 | ENST00000492807.6 | GRM1 | ENSG00000152822 | glutamate metabotropic receptor 1 Source HGNC Symbol Acc HGNC 4593 |
| E05 | SBH0507437 | ENST00000361669.6 | GRM3 | ENSG00000198822 | glutamate metabotropic receptor 3 Source HGNC Symbol Acc HGNC 4595 |
| E06 | SBH0500018 | ENST00000609278.1 | GRM4 | ENSG00000124493 | glutamate metabotropic receptor 4 Source HGNC Symbol Acc HGNC 4596 |
| E07 | SBH0239510 | ENST00000305432.9 | GRM5 | ENSG00000168959 | glutamate metabotropic receptor 5 Source HGNC Symbol Acc HGNC 4597 |
| E08 | SBH0215272 | ENST00000231188.9 | GRM6 | ENSG00000113262 | glutamate metabotropic receptor 6 Source HGNC Symbol Acc HGNC 4598 |
| E09 | SBH0235729 | ENST00000445087.1 | GRM7 | ENSG00000196277 | glutamate metabotropic receptor 7 Source HGNC Symbol Acc HGNC 4599 |
| E10 | SBH0321111 | ENST00000339582.6 | GRM8 | ENSG00000179603 | glutamate metabotropic receptor 8 Source HGNC Symbol Acc HGNC 4600 |
| E11 | SBH0355522 | ENST00000380289.2 | GRPR | ENSG00000126010 | gastrin releasing peptide receptor Source HGNC Symbol Acc HGNC 4609 |
| E12 | SBH0017971 | ENST00000370862.3 | HCRTR2 | ENSG00000137252 | hypocretin receptor 2 Source HGNC Symbol Acc HGNC 4849 |
| F01 | SBH0221143 | ENST00000431010.2 | HRH1 | ENSG00000196639 | histamine receptor H1 Source HGNC Symbol Acc HGNC 5182 |
| F02 | SBH0542686 | ENST00000426880.2 | HRH4 | ENSG00000134489 | histamine receptor H4 Source HGNC Symbol Acc HGNC 17383 |
| F03 | SBH0493351 | ENST00000506598.1 | HTR1A | ENSG00000178394 | 5-hydroxytryptamine receptor 1A Source HGNC Symbol Acc HGNC 5286 |
| F04 | SBH0198632 | ENST00000369947.4 | HTR1B | ENSG00000135312 | 5-hydroxytryptamine receptor 1B Source HGNC Symbol Acc HGNC 5287 |
| F05 | SBH0379050 | ENST00000374619.1 | HTR1D | ENSG00000179546 | 5-hydroxytryptamine receptor 1D Source HGNC Symbol Acc HGNC 5289 |
| F06 | SBH0566583 | ENST00000319595.5 | HTR1F | ENSG00000179097 | 5-hydroxytryptamine receptor 1F Source HGNC Symbol Acc HGNC 5292 |
| F07 | SBH0547087 | ENST00000378688.8 | HTR2A | ENSG00000102468 | 5-hydroxytryptamine receptor 2A Source HGNC Symbol Acc HGNC 5293 |
| F08 | SBH0560764 | ENST00000371950.3 | HTR2C | ENSG00000147246 | 5-hydroxytryptamine receptor 2C Source HGNC Symbol Acc HGNC 5295 |
| F09 | SBH0656917 | ENST00000510849.5 | HTR3A | ENSG00000166736 | 5-hydroxytryptamine receptor 3A Source HGNC Symbol Acc HGNC 5297 |
| F10 | SBH0671263 | ENST00000521735.5 | HTR4 | ENSG00000164270 | 5-hydroxytryptamine receptor 4 Source HGNC Symbol Acc HGNC 5299 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------|--------|-----------------|--|
| F11 | SBH0162397 | ENST00000277874.10 | HTR7 | ENSG00000148680 | 5-hydroxytryptamine receptor 7 Source HGNC Symbol Acc HGNC 5302 |
| F12 | SBH0197177 | ENST00000506608.1 | NPY2R | ENSG00000185149 | neuropeptide Y receptor Y2 Source HGNC Symbol Acc HGNC 7957 |
| G01 | SBH0632703 | ENST00000338566.8 | NPY5R | ENSG00000164129 | neuropeptide Y receptor Y5 Source HGNC Symbol Acc HGNC 7958 |
| G02 | SBH0457728 | ENST00000306928.6 | NTSR2 | ENSG00000169006 | neurotensin receptor 2 Source HGNC Symbol Acc HGNC 8040 |
| G03 | SBH0343674 | ENST00000316793.7 | OXTR | ENSG00000180914 | oxytocin receptor Source HGNC Symbol Acc HGNC 8529 |
| G04 | SBH0504020 | ENST00000217270.3 | PROKR2 | ENSG00000101292 | prokineticin receptor 2 Source HGNC Symbol Acc HGNC 15836 |
| G05 | SBH0541926 | ENST00000630739.2 | SCTR | ENSG00000080293 | secretin receptor Source HGNC Symbol Acc HGNC 10608 |
| G06 | SBH0438397 | ENST00000267377.3 | SSTR1 | ENSG00000139874 | somatostatin receptor 1 Source HGNC Symbol Acc HGNC 11330 |
| G07 | SBH0022636 | ENST00000579323.5 | SSTR2 | ENSG00000180616 | somatostatin receptor 2 Source HGNC Symbol Acc HGNC 11331 |
| G08 | SBH0448104 | ENST00000255008.4 | SSTR4 | ENSG00000132671 | somatostatin receptor 4 Source HGNC Symbol Acc HGNC 11333 |
| G09 | SBH0301003 | ENST00000409848.3 | TACR1 | ENSG00000115353 | tachykinin receptor 1 Source HGNC Symbol Acc HGNC 11526 |
| G10 | SBH0326855 | ENST00000373306.4 | TACR2 | ENSG00000075073 | tachykinin receptor 2 Source HGNC Symbol Acc HGNC 11527 |
| G11 | SBH0044185 | ENST00000304883.3 | TACR3 | ENSG00000169836 | tachykinin receptor 3 Source HGNC Symbol Acc HGNC 11528 |
| G12 | SBH0289589 | ENST00000329563.8 | TSPO | ENSG00000100300 | translocator protein Source HGNC Symbol Acc HGNC 1158 |
| H01 | SBH1220543 | ENST00000646664.1 | ACTB | ENSG00000075624 | actin beta Source HGNC Symbol Acc HGNC 132 |
| H02 | SBH1220550 | ENST00000558401.6 | B2M | ENSG00000166710 | beta-2-microglobulin Source HGNC Symbol Acc HGNC 914 |
| H03 | SBH1220545 | ENST00000396861.5 | GAPDH | ENSG00000111640 | glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141 |
| H04 | SBH1220546 | ENST00000298556.8 | HPRT1 | ENSG00000165704 | hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157 |
| H05 | SBH1220553 | ENST00000546989.5 | RPLP0 | ENSG00000089157 | ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371 |
| H06 | SBH1218553 | Sybr_HGDC | HGDC | Sybr_HGDC | Human 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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