

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

Human Notch Signaling Pathway

Cat. no. 249950 SBHS-059ZA

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 | ADAM10 | ADAM17 | AES | AXIN1 | CBL | CCND1 | CCNE1 | CD44 | CDKN1A | CFLAR | CHUK | CTNNB1 |
| B | DLL1 | DLL3 | DLL4 | DTX1 | EP300 | ERBB2 | VEGFD | FOS | FOSL1 | FZD2 | FZD3 | FZD4 |
| C | FZD7 | GLI1 | GSK3B | HDAC1 | HES1 | HES5 | HEY1 | HEY2 | HEYL | HOXB4 | HR | ID1 |
| D | IFNG | IL17B | IL2RA | JAG1 | JAG2 | KRT1 | LFNG | LMO2 | LOR | LRP5 | MAML1 | MAML2 |
| E | MFNG | MMP7 | NCOR2 | NCSTN | NEURL1 | NFKB1 | NFKB2 | NOTCH1 | NOTCH2 | NOTCH2NLA | NOTCH3 | NOTCH4 |
| F | NR4A2 | NUMB | PAX5 | POFUT1 | PPARG | PSEN1 | PSEN2 | PSENE1 | PTCRA | RBPJL | RFNG | RUNX1 |
| G | SEL1L | SH2D1A | SHH | SMO | SNW1 | STAT6 | STIL | SUFU | TLE1 | CCN4 | WNT11 | ZIC2 |
| 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 | SBH0047492 | ENST00000482945.5 | ADAM10 | ENSG00000137845 | ADAM metallopeptidase domain 10 Source HGNC Symbol Acc HGNC 188 |
| A02 | SBH1219723 | ENST00000310823.8 | ADAM17 | ENSG00000151694 | ADAM metallopeptidase domain 17 Source HGNC Symbol Acc HGNC 195 |
| A03 | SBH0216423 | ENST00000221561.12 | AES | ENSG00000104964 | amino-terminal enhancer of split Source HGNC Symbol Acc HGNC 307 |
| A04 | SBH1219777 | ENST00000262320.8 | AXIN1 | ENSG00000103126 | axin 1 Source HGNC Symbol Acc HGNC 903 |
| A05 | SBH0174182 | ENST00000634840.1 | CBL | ENSG00000110395 | Cbl proto-oncogene Source HGNC Symbol Acc HGNC 1541 |
| A06 | SBH0434090 | ENST00000227507.2 | CCND1 | ENSG00000110092 | cyclin D1 Source HGNC Symbol Acc HGNC 1582 |
| A07 | SBH1219846 | ENST00000262643.8 | CCNE1 | ENSG00000105173 | cyclin E1 Source HGNC Symbol Acc HGNC 1589 |
| A08 | SBH0074994 | ENST00000428726.7 | CD44 | ENSG00000026508 | CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681 |
| A09 | SBH0608500 | ENST00000244741.9 | CDKN1A | ENSG00000124762 | cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784 |
| A10 | SBH1219883 | ENST00000462763.5 | CFLAR | ENSG00000003402 | CASP8 and FADD like apoptosis regulator Source HGNC Symbol Acc HGNC 1876 |
| A11 | SBH1219887 | ENST00000370397.8 | CHUK | ENSG00000213341 | conserved helix-loop-helix ubiquitous kinase Source HGNC Symbol Acc HGNC 1974 |
| A12 | SBH0588482 | ENST00000396183.7 | CTNNB1 | ENSG00000168036 | catenin beta 1 Source HGNC Symbol Acc HGNC 2514 |
| B01 | SBH0070314 | ENST00000630500.1 | DLL1 | ENSG00000198719 | delta like canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2908 |
| B02 | SBH0189720 | ENST00000596614.5 | DLL3 | ENSG00000090932 | delta like canonical Notch ligand 3 Source NCBI gene Acc 10683 |
| B03 | SBH0236560 | ENST00000559440.1 | DLL4 | ENSG00000128917 | delta like canonical Notch ligand 4 Source HGNC Symbol Acc HGNC 2910 |
| B04 | SBH0055129 | ENST00000553140.1 | DTX1 | ENSG00000135144 | deltex E3 ubiquitin ligase 1 Source HGNC Symbol Acc HGNC 3060 |
| B05 | SBH1219977 | ENST00000263253.9 | EP300 | ENSG00000100393 | E1A binding protein p300 Source HGNC Symbol Acc HGNC 3373 |
| B06 | SBH0056013 | ENST00000269571.9 | ERBB2 | ENSG00000141736 | erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430 |
| B07 | SBH1220001 | ENST00000297904.4 | VEGFD | ENSG00000165197 | vascular endothelial growth factor D Source HGNC Symbol Acc HGNC 3708 |
| B08 | SBH1220004 | ENST00000554617.1 | FOS | ENSG00000170345 | Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796 |
| B09 | SBH1220005 | ENST00000532401.1 | FOSL1 | ENSG00000175592 | FOS like 1, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 13718 |
| B10 | SBH0574916 | ENST00000315323.4 | FZD2 | ENSG00000180340 | frizzled class receptor 2 Source HGNC Symbol Acc HGNC 4040 |
| B11 | SBH1220011 | ENST00000240093.8 | FZD3 | ENSG00000104290 | frizzled class receptor 3 Source HGNC Symbol Acc HGNC 4041 |
| B12 | SBH1220012 | ENST00000531380.2 | FZD4 | ENSG00000174804 | frizzled class receptor 4 Source HGNC Symbol Acc HGNC 4042 |
| C01 | SBH0357958 | ENST00000286201.2 | FZD7 | ENSG00000155760 | frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045 |
| C02 | SBH0169622 | ENST00000528467.1 | GLI1 | ENSG00000111087 | GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317 |
| C03 | SBH0579883 | ENST00000316626.5 | GSK3B | ENSG00000082701 | glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617 |
| C04 | SBH0527067 | ENST00000472928.5 | HDAC1 | ENSG00000116478 | histone deacetylase 1 Source HGNC Symbol Acc HGNC 4852 |
| C05 | SBH1220054 | ENST00000232424.4 | HES1 | ENSG00000114315 | hes family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 5192 |
| C06 | SBH1220055 | ENST00000378453.4 | HES5 | ENSG00000197921 | hes family bHLH transcription factor 5 Source HGNC Symbol Acc HGNC 19764 |
| C07 | SBH1220056 | ENST00000518733.1 | HEY1 | ENSG00000164683 | hes related family bHLH transcription factor with YRPW motif 1 Source HGNC Symbol Acc HGNC 4880 |
| C08 | SBH0153374 | ENST00000368365.5 | HEY2 | ENSG00000135547 | hes related family bHLH transcription factor with YRPW motif 2 Source HGNC Symbol Acc HGNC 4881 |
| C09 | SBH1220057 | ENST00000372852.4 | HEYL | ENSG00000163909 | hes related family bHLH transcription factor with YRPW motif-like Source HGNC Symbol Acc HGNC 4882 |
| C10 | SBH0197154 | ENST00000332503.6 | HOXB4 | ENSG00000182742 | homeobox B4 Source HGNC Symbol Acc HGNC 5115 |
| | | ENST00000517 | | ENSG000000 | HR, lysine demethylase and nuclear receptor corepressor Source HGNC Symbol |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------|-----------|-----------------|---|
| C11 | SBH0644692 | 699.2 | HR | 168453 | Acc HGNC 5172 |
| C12 | SBH1220077 | ENST00000376112.4 | ID1 | ENSG00000125968 | inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360 |
| D01 | SBH1220090 | ENST00000229135.4 | IFNG | ENSG00000111537 | interferon gamma Source HGNC Symbol Acc HGNC 5438 |
| D02 | SBH0542310 | ENST00000505432.1 | IL17B | ENSG00000127743 | interleukin 17B Source HGNC Symbol Acc HGNC 5982 |
| D03 | SBH0567688 | ENST00000447847.1 | IL2RA | ENSG00000134460 | interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008 |
| D04 | SBH0407654 | ENST00000254958.10 | JAG1 | ENSG00000101384 | jagged 1 Source HGNC Symbol Acc HGNC 6188 |
| D05 | SBH0627052 | ENST00000546616.1 | JAG2 | ENSG00000184916 | jagged 2 Source HGNC Symbol Acc HGNC 6189 |
| D06 | SBH0079137 | ENST00000252244.3 | KRT1 | ENSG00000167768 | keratin 1 Source HGNC Symbol Acc HGNC 6412 |
| D07 | SBH1220170 | ENST00000359574.7 | LFNG | ENSG00000106003 | LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 6560 |
| D08 | SBH0608405 | ENST00000411482.1 | LMO2 | ENSG00000135363 | LIM domain only 2 Source HGNC Symbol Acc HGNC 6642 |
| D09 | SBH0166249 | ENST00000368742.4 | LOR | ENSG00000203782 | loricrin Source HGNC Symbol Acc HGNC 6663 |
| D10 | SBH1220177 | ENST00000294304.12 | LRP5 | ENSG00000162337 | LDL receptor related protein 5 Source HGNC Symbol Acc HGNC 6697 |
| D11 | SBH0210141 | ENST00000507385.1 | MAML1 | ENSG00000161021 | mastermind like transcriptional coactivator 1 Source HGNC Symbol Acc HGNC 13632 |
| D12 | SBH0397431 | ENST00000524717.6 | MAML2 | ENSG00000184384 | mastermind like transcriptional coactivator 2 Source HGNC Symbol Acc HGNC 16259 |
| E01 | SBH0022393 | ENST00000436341.5 | MFNG | ENSG00000100060 | MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 7038 |
| E02 | SBH1220224 | ENST00000260227.5 | MMP7 | ENSG00000137673 | matrix metalloproteinase 7 Source HGNC Symbol Acc HGNC 7174 |
| E03 | SBH0634597 | ENST00000356219.7 | NCOR2 | ENSG00000196498 | nuclear receptor corepressor 2 Source HGNC Symbol Acc HGNC 7673 |
| E04 | SBH0547598 | ENST00000437169.5 | NCSTN | ENSG00000162736 | nicastrin Source HGNC Symbol Acc HGNC 17091 |
| E05 | SBH0588994 | ENST00000437579.1 | NEURL1 | ENSG00000107954 | neuralized E3 ubiquitin protein ligase 1 Source HGNC Symbol Acc HGNC 7761 |
| E06 | SBH1220264 | ENST00000651197.1 | NFKB1 | ENSG00000109320 | nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794 |
| E07 | SBH1220265 | ENST00000652277.1 | NFKB2 | ENSG00000077150 | nuclear factor kappa B subunit 2 Source HGNC Symbol Acc HGNC 7795 |
| E08 | SBH0615258 | ENST00000277541.7 | NOTCH1 | ENSG00000148400 | notch 1 Source HGNC Symbol Acc HGNC 7881 |
| E09 | SBH0378554 | ENST00000256646.7 | NOTCH2 | ENSG00000134250 | notch 2 Source HGNC Symbol Acc HGNC 7882 |
| E10 | SBH0345615 | ENST00000579793.6 | NOTCH2NLA | ENSG00000264343 | notch 2 N-terminal like A Source HGNC Symbol Acc HGNC 31862 |
| E11 | SBH0513117 | ENST00000597756.1 | NOTCH3 | ENSG00000074181 | notch 3 Source HGNC Symbol Acc HGNC 7883 |
| E12 | SBH1220273 | ENST00000375023.3 | NOTCH4 | ENSG00000204301 | notch 4 Source HGNC Symbol Acc HGNC 7884 |
| F01 | SBH0444745 | ENST00000339562.9 | NR4A2 | ENSG00000153234 | nuclear receptor subfamily 4 group A member 2 Source HGNC Symbol Acc HGNC 7981 |
| F02 | SBH0378382 | ENST00000554546.5 | NUMB | ENSG00000133961 | NUMB, endocytic adaptor protein Source HGNC Symbol Acc HGNC 8060 |
| F03 | SBH0623717 | ENST00000520281.5 | PAX5 | ENSG00000196092 | paired box 5 Source HGNC Symbol Acc HGNC 8619 |
| F04 | SBH0091739 | ENST00000486717.5 | POFUT1 | ENSG00000101346 | protein O-fucosyltransferase 1 Source HGNC Symbol Acc HGNC 14988 |
| F05 | SBH0521265 | ENST00000652522.1 | PPARG | ENSG00000132170 | peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236 |
| F06 | SBH0137526 | ENST00000557511.5 | PSEN1 | ENSG00000080815 | presenilin 1 Source HGNC Symbol Acc HGNC 9508 |
| F07 | SBH0022194 | ENST00000521431.1 | PSEN2 | ENSG00000143801 | presenilin 2 Source HGNC Symbol Acc HGNC 9509 |
| F08 | SBH0591590 | ENST00000222266.2 | PSENE1 | ENSG00000205155 | presenilin enhancer, gamma-secretase subunit Source HGNC Symbol Acc HGNC 30100 |
| F09 | SBH0372693 | ENST00000446507.5 | PTCRA | ENSG00000171611 | pre T cell antigen receptor alpha Source HGNC Symbol Acc HGNC 21290 |
| F10 | SBH0096114 | ENST00000372741.7 | RBPJL | ENSG00000124232 | recombination signal binding protein for immunoglobulin kappa J region like Source HGNC Symbol Acc HGNC 13761 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|-------------------|--------|-----------------|---|
| F11 | SBH0624152 | ENST00000580928.1 | RFNG | ENSG00000169733 | RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 9974 |
| F12 | SBH0384721 | ENST00000437180.5 | RUNX1 | ENSG00000159216 | runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471 |
| G01 | SBH0304363 | ENST00000557372.1 | SEL1L | ENSG00000071537 | SEL1L, ERAD E3 ligase adaptor subunit Source HGNC Symbol Acc HGNC 10717 |
| G02 | SBH0237470 | ENST00000371139.8 | SH2D1A | ENSG00000183918 | SH2 domain containing 1A Source HGNC Symbol Acc HGNC 10820 |
| G03 | SBH0041689 | ENST00000430104.5 | SHH | ENSG00000164690 | sonic hedgehog signaling molecule Source HGNC Symbol Acc HGNC 10848 |
| G04 | SBH0217804 | ENST00000462420.2 | SMO | ENSG00000128602 | smoothened, frizzled class receptor Source HGNC Symbol Acc HGNC 11119 |
| G05 | SBH0309560 | ENST00000556428.5 | SNW1 | ENSG00000100603 | SNW domain containing 1 Source HGNC Symbol Acc HGNC 16696 |
| G06 | SBH1220424 | ENST00000300134.8 | STAT6 | ENSG00000166888 | signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368 |
| G07 | SBH0357015 | ENST00000436811.1 | STIL | ENSG00000123473 | STIL, centriolar assembly protein Source HGNC Symbol Acc HGNC 10879 |
| G08 | SBH0545396 | ENST00000369899.6 | SUFU | ENSG00000107882 | SUFU negative regulator of hedgehog signaling Source HGNC Symbol Acc HGNC 16466 |
| G09 | SBH1220459 | ENST00000376499.8 | TLE1 | ENSG00000196781 | TLE family member 1, transcriptional corepressor Source HGNC Symbol Acc HGNC 11837 |
| G10 | SBH1220526 | ENST00000220856.6 | CCN4 | ENSG00000104415 | cellular communication network factor 4 Source HGNC Symbol Acc HGNC 12769 |
| G11 | SBH1220528 | ENST00000322563.8 | WNT11 | ENSG00000085741 | Wnt family member 11 Source HGNC Symbol Acc HGNC 12776 |
| G12 | SBH0339647 | ENST00000477213.1 | ZIC2 | ENSG00000043355 | Zic family member 2 Source HGNC Symbol Acc HGNC 12873 |
| 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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