

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

Human Hepatotoxicity

Cat. no. 249950 SBHS-093ZR

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 | ABCB1 | ABCB11 | ABCB4 | ABCC2 | ABCC3 | ALDOA | APEX1 | ASAH1 | ATP8B1 | AVPR1A | BHMT | BTG2 |
| B | CA3 | CASP3 | CCNG1 | CD36 | CD68 | CDC14B | CDKN1A | COL4A1 | CRYL1 | CXCL12 | CYP1A2 | DDIT4L |
| C | DDX39A | DNAJB11 | DNAJC3 | FABP1 | FADS1 | EMC9 | FASN | FMO1 | TMM10B | GADD45A | GCLC | GSR |
| D | HAO2 | HMOX1 | HPN | HYOU1 | ICAM1 | IGFALS | IL6ST | IPO4 | FAM214A | KRT18 | KRT8 | L2HGDH |
| E | LGR5 | LPL | LSS | MAOB | MAP3K6 | MBL2 | MCM10 | MLXPL | MRPS18B | NGO1 | NUS1 | OSMR |
| F | SLC51A | PDYN | PLA2G12A | PPARA | PSME3 | PYGL | RB1 | RDX | RHBG | S100A8 | SCD | SERPINA3 |
| G | SERPINE1 | SKIL | SLC17A3 | SLC2A3 | SLC39A6 | SREBF1 | TAGLN | THRSP | CEMIP2 | TXNRD1 | WIPI1 | YRDC |
| 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 | SBH0346091 | ENST00000622132.4 | ABCB1 | ENSG00000085563 | ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40 |
| A02 | SBH0651110 | ENST00000650372.1 | ABCB11 | ENSG00000073734 | ATP binding cassette subfamily B member 11 Source HGNC Symbol Acc HGNC 42 |
| A03 | SBH0585650 | ENST00000469770.1 | ABCB4 | ENSG00000005471 | ATP binding cassette subfamily B member 4 Source HGNC Symbol Acc HGNC 45 |
| A04 | SBH0620483 | ENST00000649932.1 | ABCC2 | ENSG00000023839 | ATP binding cassette subfamily C member 2 Source HGNC Symbol Acc HGNC 53 |
| A05 | SBH0597013 | ENST00000503337.1 | ABCC3 | ENSG000000108846 | ATP binding cassette subfamily C member 3 Source HGNC Symbol Acc HGNC 54 |
| A06 | SBH0597315 | ENST00000564546.6 | ALDOA | ENSG000000149925 | aldolase, fructose-bisphosphate A Source HGNC Symbol Acc HGNC 414 |
| A07 | SBH0279561 | ENST00000555414.5 | APEX1 | ENSG000000100823 | apurinic/apyrimidinic endodeoxyribonuclease 1 Source HGNC Symbol Acc HGNC 587 |
| A08 | SBH0260442 | ENST00000518746.2 | ASAH1 | ENSG000000104763 | N-acylsphingosine amidohydrolase 1 Source HGNC Symbol Acc HGNC 735 |
| A09 | SBH0429998 | ENST00000283684.9 | ATP8B1 | ENSG000000081923 | ATPase phospholipid transporting 8B1 Source HGNC Symbol Acc HGNC 3706 |
| A10 | SBH0085505 | ENST00000550940.1 | AVPR1A | ENSG000000166148 | arginine vasopressin receptor 1A Source HGNC Symbol Acc HGNC 895 |
| A11 | SBH0183479 | ENST00000520703.1 | BHMT | ENSG000000145692 | betaine--homocysteine S-methyltransferase Source HGNC Symbol Acc HGNC 1047 |
| A12 | SBH1219818 | ENST00000290551.5 | BTG2 | ENSG000000159388 | BTG anti-proliferation factor 2 Source HGNC Symbol Acc HGNC 1131 |
| B01 | SBH0462441 | ENST00000520921.1 | CA3 | ENSG000000164879 | carbonic anhydrase 3 Source HGNC Symbol Acc HGNC 1374 |
| B02 | SBH1219824 | ENST00000308394.9 | CASP3 | ENSG000000164305 | caspase 3 Source HGNC Symbol Acc HGNC 1504 |
| B03 | SBH1219847 | ENST00000393929.5 | CCNG1 | ENSG000000113328 | cyclin G1 Source HGNC Symbol Acc HGNC 1592 |
| B04 | SBH0074710 | ENST00000441109.6 | CD36 | ENSG000000135218 | CD36 molecule Source HGNC Symbol Acc HGNC 1663 |
| B05 | SBH0042038 | ENST00000584502.1 | CD68 | ENSG000000129226 | CD68 molecule Source HGNC Symbol Acc HGNC 1693 |
| B06 | SBH0367718 | ENST00000474602.5 | CDC14B | ENSG000000081377 | cell division cycle 14B Source HGNC Symbol Acc HGNC 1719 |
| B07 | SBH0608500 | ENST00000244741.9 | CDKN1A | ENSG000000124762 | cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784 |
| B08 | SBH0114999 | ENST00000649484.1 | COL4A1 | ENSG000000187498 | collagen type IV alpha 1 chain Source HGNC Symbol Acc HGNC 2202 |
| B09 | SBH0608168 | ENST00000644593.1 | CRYL1 | ENSG000000165475 | crystallin lambda 1 Source HGNC Symbol Acc HGNC 18246 |
| B10 | SBH0010818 | ENST00000374429.6 | CXCL12 | ENSG000000107562 | C-X-C motif chemokine ligand 12 Source HGNC Symbol Acc HGNC 10672 |
| B11 | SBH0642290 | ENST00000343932.5 | CYP1A2 | ENSG000000140505 | cytochrome P450 family 1 subfamily A member 2 Source HGNC Symbol Acc HGNC 2596 |
| B12 | SBH0120315 | ENST00000513992.1 | DDIT4L | ENSG000000145358 | DNA damage inducible transcript 4 like Source HGNC Symbol Acc HGNC 30555 |
| C01 | SBH0156517 | ENST00000592632.5 | DDX39A | ENSG000000123136 | DEd-box helicase 39A Source HGNC Symbol Acc HGNC 17821 |
| C02 | SBH0561581 | ENST00000265028.7 | DNAJB11 | ENSG000000090520 | DnaJ heat shock protein family (Hsp40) member B11 Source HGNC Symbol Acc HGNC 14889 |
| C03 | SBH1219956 | ENST00000602402.6 | DNAJC3 | ENSG000000102580 | DnaJ heat shock protein family (Hsp40) member C3 Source HGNC Symbol Acc HGNC 9439 |
| C04 | SBH1219991 | ENST00000393750.3 | FABP1 | ENSG000000163586 | fatty acid binding protein 1 Source HGNC Symbol Acc HGNC 3555 |
| C05 | SBH0548809 | ENST00000350997.11 | FADS1 | ENSG000000149485 | fatty acid desaturase 1 Source HGNC Symbol Acc HGNC 3574 |
| C06 | SBH0559424 | ENST00000216799.9 | EMC9 | ENSG000000100908 | ER membrane protein complex subunit 9 Source HGNC Symbol Acc HGNC 20273 |
| C07 | SBH0282662 | ENST00000635197.1 | FASN | ENSG000000169710 | fatty acid synthase Source HGNC Symbol Acc HGNC 3594 |
| C08 | SBH0628645 | ENST00000354841.4 | FMO1 | ENSG000000010932 | flavin containing monooxygenase 1 Source HGNC Symbol Acc HGNC 3769 |
| C09 | SBH0302184 | ENST00000254616.11 | TIMM10B | ENSG000000132286 | translocase of inner mitochondrial membrane 10B Source HGNC Symbol Acc HGNC 4022 |
| C10 | SBH1220019 | ENST00000370985.4 | GADD45A | ENSG000000116717 | growth arrest and DNA damage inducible alpha Source HGNC Symbol Acc HGNC 4095 |
| | | ENST000002229 | | ENSG000000 | glutamate-cysteine ligase catalytic subunit Source HGNC Symbol Acc HGNC |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|--------------------|----------|-----------------|---|
| C11 | SBH0482856 | 416.10 | GCLC | 001084 | 4311 |
| C12 | SBH1220042 | ENST00000546342.5 | GSR | ENSG00000104687 | glutathione-disulfide reductase Source HGNC Symbol Acc HGNC 4623 |
| D01 | SBH0177174 | ENST00000622548.4 | HAO2 | ENSG00000116882 | hydroxyacid oxidase 2 Source HGNC Symbol Acc HGNC 4810 |
| D02 | SBH1220067 | ENST00000216117.9 | HMOX1 | ENSG00000100292 | heme oxygenase 1 Source HGNC Symbol Acc HGNC 5013 |
| D03 | SBH0607801 | ENST00000597419.1 | HPN | ENSG00000105707 | hepsin Source HGNC Symbol Acc HGNC 5155 |
| D04 | SBH0666279 | ENST00000530473.5 | HYOU1 | ENSG00000149428 | hypoxia up-regulated 1 Source HGNC Symbol Acc HGNC 16931 |
| D05 | SBH1220076 | ENST00000264832.8 | ICAM1 | ENSG00000090339 | intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344 |
| D06 | SBH0483227 | ENST00000215539.3 | IGFALS | ENSG00000099769 | insulin like growth factor binding protein acid labile subunit Source HGNC Symbol Acc HGNC 5468 |
| D07 | SBH0280973 | ENST00000503773.6 | IL6ST | ENSG00000134352 | interleukin 6 signal transducer Source HGNC Symbol Acc HGNC 6021 |
| D08 | SBH0382925 | ENST00000561090.5 | IPO4 | ENSG00000196497 | importin 4 Source HGNC Symbol Acc HGNC 19426 |
| D09 | SBH0370874 | ENST00000561543.5 | FAM214A | ENSG00000047346 | family with sequence similarity 214 member A Source HGNC Symbol Acc HGNC 25609 |
| D10 | SBH0247700 | ENST00000550600.5 | KRT18 | ENSG00000111057 | keratin 18 Source HGNC Symbol Acc HGNC 6430 |
| D11 | SBH0594835 | ENST00000547176.3 | KRT8 | ENSG00000170421 | keratin 8 Source HGNC Symbol Acc HGNC 6446 |
| D12 | SBH0394102 | ENST00000267436.9 | L2HGDH | ENSG00000087299 | L-2-hydroxyglutarate dehydrogenase Source HGNC Symbol Acc HGNC 20499 |
| E01 | SBH0253661 | ENST00000266674.10 | LGR5 | ENSG00000139292 | leucine rich repeat containing G protein-coupled receptor 5 Source HGNC Symbol Acc HGNC 4504 |
| E02 | SBH1220175 | ENST00000311322.10 | LPL | ENSG00000175445 | lipoprotein lipase Source HGNC Symbol Acc HGNC 6677 |
| E03 | SBH0650854 | ENST00000522411.5 | LSS | ENSG00000160285 | lanosterol synthase Source HGNC Symbol Acc HGNC 6708 |
| E04 | SBH0081757 | ENST00000487544.1 | MAOB | ENSG00000069535 | monoamine oxidase B Source HGNC Symbol Acc HGNC 6834 |
| E05 | SBH0376133 | ENST00000470890.1 | MAP3K6 | ENSG00000142733 | mitogen-activated protein kinase kinase kinase 6 Source HGNC Symbol Acc HGNC 6858 |
| E06 | SBH0384612 | ENST00000373968.3 | MBL2 | ENSG00000165471 | mannose binding lectin 2 Source HGNC Symbol Acc HGNC 6922 |
| E07 | SBH0070144 | ENST00000378694.1 | MCM10 | ENSG00000065328 | minichromosome maintenance 10 replication initiation factor Source HGNC Symbol Acc HGNC 18043 |
| E08 | SBH0379475 | ENST00000476404.5 | MLXIPL | ENSG00000009950 | MLX interacting protein like Source HGNC Symbol Acc HGNC 12744 |
| E09 | SBH0614269 | ENST00000492316.5 | MRPS18B | ENSG00000204568 | mitochondrial ribosomal protein S18B Source HGNC Symbol Acc HGNC 14516 |
| E10 | SBH1220279 | ENST00000320623.10 | NQO1 | ENSG00000181019 | NAD(P)H quinone dehydrogenase 1 Source HGNC Symbol Acc HGNC 2874 |
| E11 | SBH0020186 | ENST00000368494.4 | NUS1 | ENSG00000153989 | NUS1, dehydrodolichyl diphosphate synthase subunit Source HGNC Symbol Acc HGNC 21042 |
| E12 | SBH0407115 | ENST00000274276.8 | OSMR | ENSG00000145623 | oncostatin M receptor Source HGNC Symbol Acc HGNC 8507 |
| F01 | SBH0497660 | ENST00000296327.10 | SLC51A | ENSG00000163959 | solute carrier family 51 alpha subunit Source HGNC Symbol Acc HGNC 29955 |
| F02 | SBH0477068 | ENST00000650824.1 | PDYN | ENSG00000101327 | prodynorphin Source HGNC Symbol Acc HGNC 8820 |
| F03 | SBH0169953 | ENST00000502772.1 | PLA2G12A | ENSG00000123739 | phospholipase A2 group XIIA Source HGNC Symbol Acc HGNC 18554 |
| F04 | SBH1220322 | ENST00000407236.5 | PPARA | ENSG00000186951 | peroxisome proliferator activated receptor alpha Source HGNC Symbol Acc HGNC 9232 |
| F05 | SBH0610467 | ENST00000593111.1 | PSME3 | ENSG00000131467 | proteasome activator subunit 3 Source HGNC Symbol Acc HGNC 9570 |
| F06 | SBH1220349 | ENST00000544180.6 | PYGL | ENSG00000100504 | glycogen phosphorylase L Source HGNC Symbol Acc HGNC 9725 |
| F07 | SBH0093533 | ENST00000267163.5 | RB1 | ENSG00000139687 | RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884 |
| F08 | SBH0480501 | ENST00000534683.1 | RDX | ENSG00000137710 | radixin Source HGNC Symbol Acc HGNC 9944 |
| F09 | SBH0407703 | ENST00000494874.1 | RHBG | ENSG00000132677 | Rh family B glycoprotein (gene/pseudogene) Source HGNC Symbol Acc HGNC 14572 |
| F10 | SBH0133006 | ENST00000477801.1 | S100A8 | ENSG00000143546 | S100 calcium binding protein A8 Source HGNC Symbol Acc HGNC 10498 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|------------|-------------------|----------|------------------|--|
| F11 | SBH0541153 | ENST00000370355.3 | SCD | ENSG00000099194 | stearoyl-CoA desaturase Source HGNC Symbol Acc HGNC 10571 |
| F12 | SBH0032295 | ENST00000393078.4 | SERPINA3 | ENSG000000196136 | serpin family A member 3 Source HGNC Symbol Acc HGNC 16 |
| G01 | SBH1220389 | ENST00000223095.4 | SERPINE1 | ENSG000000106366 | serpin family E member 1 Source HGNC Symbol Acc HGNC 8583 |
| G02 | SBH0189759 | ENST00000259119.9 | SKIL | ENSG000000136603 | SKI like proto-oncogene Source HGNC Symbol Acc HGNC 10897 |
| G03 | SBH0615048 | ENST00000397060.8 | SLC17A3 | ENSG000000124564 | solute carrier family 17 member 3 Source HGNC Symbol Acc HGNC 10931 |
| G04 | SBH0631058 | ENST00000476634.1 | SLC2A3 | ENSG000000059804 | solute carrier family 2 member 3 Source HGNC Symbol Acc HGNC 11007 |
| G05 | SBH0662313 | ENST00000586829.1 | SLC39A6 | ENSG000000141424 | solute carrier family 39 member 6 Source HGNC Symbol Acc HGNC 18607 |
| G06 | SBH0652491 | ENST00000423161.3 | SREBF1 | ENSG000000072310 | sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289 |
| G07 | SBH0194372 | ENST00000529622.1 | TAGLN | ENSG000000149591 | transgelin Source HGNC Symbol Acc HGNC 11553 |
| G08 | SBH0550229 | ENST00000281030.2 | THRSP | ENSG000000151365 | thyroid hormone responsive Source HGNC Symbol Acc HGNC 11800 |
| G09 | SBH0261700 | ENST00000377066.9 | CEMIP2 | ENSG000000135048 | cell migration inducing hyaluronidase 2 Source HGNC Symbol Acc HGNC 11869 |
| G10 | SBH0296369 | ENST00000526691.5 | TXNRD1 | ENSG000000198431 | thioredoxin reductase 1 Source HGNC Symbol Acc HGNC 12437 |
| G11 | SBH0518264 | ENST00000586815.1 | WIPI1 | ENSG000000070540 | WD repeat domain, phosphoinositide interacting 1 Source HGNC Symbol Acc HGNC 25471 |
| G12 | SBH0414648 | ENST00000373044.3 | YRDC | ENSG000000196449 | yrdC N6-threonylcarbamoyltransferase domain containing Source HGNC Symbol Acc HGNC 28905 |
| H01 | SBH1220543 | ENST00000646664.1 | ACTB | ENSG000000075624 | actin beta Source HGNC Symbol Acc HGNC 132 |
| H02 | SBH1220550 | ENST00000558401.6 | B2M | ENSG000000166710 | beta-2-microglobulin Source HGNC Symbol Acc HGNC 914 |
| H03 | SBH1220545 | ENST00000396861.5 | GAPDH | ENSG000000111640 | glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141 |
| H04 | SBH1220546 | ENST00000298556.8 | HPRT1 | ENSG000000165704 | hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157 |
| H05 | SBH1220553 | ENST00000546989.5 | RPLP0 | ENSG000000089157 | 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.

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.

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