

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

## Human Inflammatory Response & Autoimmunity

Cat. no. 249950 SBHS-077ZR

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](http://www.qiagen.com) for further details.

|   | 1     | 2      | 3      | 4     | 5     | 6     | 7      | 8      | 9     | 10    | 11      | 12     |
|---|-------|--------|--------|-------|-------|-------|--------|--------|-------|-------|---------|--------|
| A | BCL6  | C3     | C3AR1  | CCL11 | CCL13 | CCL16 | CCL17  | CCL19  | CCL2  | CCL21 | CCL22   | CCL23  |
| B | CCL24 | CCL3   | CCL4   | CCL5  | CCL7  | CCL8  | CCR1   | CCR2   | CCR3  | CCR4  | CCR7    | CD14   |
| C | CD40  | CD40LG | CEBPB  | CRP   | CSF1  | CXCL1 | CXCL10 | CXCL2  | CXCL3 | CXCL5 | CXCL6   | CXCL9  |
| D | CXCR1 | CXCR2  | CXCR4  | FASLG | FOS   | IFNG  | IL10   | IL10RB | IL15  | IL17A | IL18    | IL1A   |
| E | IL1B  | IL1R1  | IL1RAP | IL1RN | IL22  | IL23A | IL23R  | IL5    | IL6   | IL6R  | CXCL8   | IL9    |
| F | ITGB2 | KNG1   | LTA    | LTB   | LY96  | MYD88 | NFKB1  | NOS2   | NR3C1 | PTGS2 | RIPK2   | SELE   |
| G | TIRAP | TLR1   | TLR2   | TLR3  | TLR4  | TLR5  | TLR6   | TLR7   | TLR9  | TNF   | TNFSF14 | TOLLIP |
| 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      | SBH1219790 | ENST00000232014.8  | BCL6   | ENSG00000113916 | BCL6, transcription repressor Source HGNC Symbol Acc HGNC 1001       |
| A02      | SBH0244130 | ENST00000245907.10 | C3     | ENSG00000125730 | complement C3 Source HGNC Symbol Acc HGNC 1318                       |
| A03      | SBH0366969 | ENST00000307637.4  | C3AR1  | ENSG00000171860 | complement C3a receptor 1 Source HGNC Symbol Acc HGNC 1319           |
| A04      | SBH0204041 | ENST00000305869.3  | CCL11  | ENSG00000172156 | C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610      |
| A05      | SBH1219830 | ENST00000225844.7  | CCL13  | ENSG00000181374 | C-C motif chemokine ligand 13 Source HGNC Symbol Acc HGNC 10611      |
| A06      | SBH1219832 | ENST00000611905.2  | CCL16  | ENSG00000275152 | C-C motif chemokine ligand 16 Source HGNC Symbol Acc HGNC 10614      |
| A07      | SBH0262255 | ENST00000219244.8  | CCL17  | ENSG00000102970 | C-C motif chemokine ligand 17 Source HGNC Symbol Acc HGNC 10615      |
| A08      | SBH1219833 | ENST00000311925.7  | CCL19  | ENSG00000172724 | C-C motif chemokine ligand 19 Source HGNC Symbol Acc HGNC 10617      |
| A09      | SBH0228134 | ENST00000225831.4  | CCL2   | ENSG00000108691 | C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618       |
| A10      | SBH1219835 | ENST00000259607.7  | CCL21  | ENSG00000137077 | C-C motif chemokine ligand 21 Source HGNC Symbol Acc HGNC 10620      |
| A11      | SBH1219836 | ENST00000219235.5  | CCL22  | ENSG00000102962 | C-C motif chemokine ligand 22 Source HGNC Symbol Acc HGNC 10621      |
| A12      | SBH1219837 | ENST00000615050.2  | CCL23  | ENSG00000274736 | C-C motif chemokine ligand 23 Source HGNC Symbol Acc HGNC 10622      |
| B01      | SBH0329993 | ENST00000222902.6  | CCL24  | ENSG00000106178 | C-C motif chemokine ligand 24 Source HGNC Symbol Acc HGNC 10623      |
| B02      | SBH1219838 | ENST00000613922.2  | CCL3   | ENSG00000277632 | C-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 10627       |
| B03      | SBH1219839 | ENST00000615863.2  | CCL4   | ENSG00000275302 | C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630       |
| B04      | SBH1219840 | ENST00000603197.6  | CCL5   | ENSG00000271503 | C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632       |
| B05      | SBH0098305 | ENST00000378569.2  | CCL7   | ENSG00000108688 | C-C motif chemokine ligand 7 Source HGNC Symbol Acc HGNC 10634       |
| B06      | SBH1219841 | ENST00000394620.2  | CCL8   | ENSG00000108700 | C-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 10635       |
| B07      | SBH1219851 | ENST00000296140.4  | CCR1   | ENSG00000163823 | C-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 1602      |
| B08      | SBH0387563 | ENST00000445132.2  | CCR2   | ENSG00000121807 | C-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 1603      |
| B09      | SBH1219852 | ENST00000545097.1  | CCR3   | ENSG00000183625 | C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604      |
| B10      | SBH1219853 | ENST00000330953.5  | CCR4   | ENSG00000183813 | C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605      |
| B11      | SBH0112550 | ENST00000246657.2  | CCR7   | ENSG00000126353 | C-C motif chemokine receptor 7 Source HGNC Symbol Acc HGNC 1608      |
| B12      | SBH1219857 | ENST00000512545.1  | CD14   | ENSG00000170458 | CD14 molecule Source HGNC Symbol Acc HGNC 1628                       |
| C01      | SBH1219861 | ENST0000037285.7   | CD40   | ENSG00000101017 | CD40 molecule Source HGNC Symbol Acc HGNC 11919                      |
| C02      | SBH1219862 | ENST00000370629.6  | CD40LG | ENSG00000102245 | CD40 ligand Source HGNC Symbol Acc HGNC 11935                        |
| C03      | SBH0569983 | ENST00000303004.4  | CEBPB  | ENSG00000172216 | CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834 |
| C04      | SBH0187022 | ENST00000255030.9  | CRP    | ENSG00000132693 | C-reactive protein Source HGNC Symbol Acc HGNC 2367                  |
| C05      | SBH1219913 | ENST00000420111.6  | CSF1   | ENSG00000184371 | colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432         |
| C06      | SBH0404660 | ENST00000395761.3  | CXCL1  | ENSG00000163739 | C-X-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 4602      |
| C07      | SBH1219927 | ENST00000306602.3  | CXCL10 | ENSG00000169245 | C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637    |
| C08      | SBH1219929 | ENST00000508487.3  | CXCL2  | ENSG00000081041 | C-X-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 4603      |
| C09      | SBH0584763 | ENST00000296026.4  | CXCL3  | ENSG00000163734 | C-X-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 4604      |
| C10      | SBH1219930 | ENST00000296027.5  | CXCL5  | ENSG00000163735 | C-X-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10642     |
|          |            | ENST00000226       |        | ENSG000000      |                                                                      |

| Position | Assay      | Name               | Symbol | Ensembl ID       | Description                                                                            |
|----------|------------|--------------------|--------|------------------|----------------------------------------------------------------------------------------|
| C11      | SBH1219931 | 317.10             | CXCL6  | 124875           | C-X-C motif chemokine ligand 6 Source HGNC Symbol Acc HGNC 10643                       |
| C12      | SBH0383348 | ENST00000264888.5  | CXCL9  | ENSG00000138755  | C-X-C motif chemokine ligand 9 Source HGNC Symbol Acc HGNC 7098                        |
| D01      | SBH0591583 | ENST00000295683.2  | CXCR1  | ENSG00000163464  | C-X-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 6026                      |
| D02      | SBH1219933 | ENST00000318507.7  | CXCR2  | ENSG00000180871  | C-X-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 6027                      |
| D03      | SBH0591410 | ENST00000241393.3  | CXCR4  | ENSG00000121966  | C-X-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 2561                      |
| D04      | SBH1219995 | ENST00000367721.3  | FASLG  | ENSG00000117560  | Fas ligand Source HGNC Symbol Acc HGNC 11936                                           |
| D05      | SBH1220004 | ENST00000554617.1  | FOS    | ENSG00000170345  | Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796 |
| D06      | SBH1220090 | ENST00000229135.4  | IFNG   | ENSG00000111537  | interferon gamma Source HGNC Symbol Acc HGNC 5438                                      |
| D07      | SBH1220095 | ENST00000423557.1  | IL10   | ENSG00000136634  | interleukin 10 Source HGNC Symbol Acc HGNC 5962                                        |
| D08      | SBH1220096 | ENST00000290200.7  | IL10RB | ENSG00000243646  | interleukin 10 receptor subunit beta Source HGNC Symbol Acc HGNC 5965                  |
| D09      | SBH1220101 | ENST00000296545.11 | IL15   | ENSG00000164136  | interleukin 15 Source HGNC Symbol Acc HGNC 5977                                        |
| D10      | SBH0451354 | ENST00000340057.1  | IL17A  | ENSG00000112115  | interleukin 17A Source HGNC Symbol Acc HGNC 5981                                       |
| D11      | SBH1220103 | ENST00000524595.5  | IL18   | ENSG00000150782  | interleukin 18 Source HGNC Symbol Acc HGNC 5986                                        |
| D12      | SBH0663647 | ENST00000263339.3  | IL1A   | ENSG00000115008  | interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991                                   |
| E01      | SBH0079231 | ENST00000263341.6  | IL1B   | ENSG00000125538  | interleukin 1 beta Source HGNC Symbol Acc HGNC 5992                                    |
| E02      | SBH1220104 | ENST00000424272.5  | IL1R1  | ENSG00000115594  | interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993                         |
| E03      | SBH1220105 | ENST00000412080.1  | IL1RAP | ENSG00000196083  | interleukin 1 receptor accessory protein Source HGNC Symbol Acc HGNC 5995              |
| E04      | SBH0473919 | ENST00000354115.6  | IL1RN  | ENSG00000136689  | interleukin 1 receptor antagonist Source HGNC Symbol Acc HGNC 6000                     |
| E05      | SBH0349355 | ENST00000328087.6  | IL22   | ENSG00000127318  | interleukin 22 Source HGNC Symbol Acc HGNC 14900                                       |
| E06      | SBH1220107 | ENST00000228534.6  | IL23A  | ENSG00000110944  | interleukin 23 subunit alpha Source HGNC Symbol Acc HGNC 15488                         |
| E07      | SBH1220108 | ENST00000347310.9  | IL23R  | ENSG00000162594  | interleukin 23 receptor Source HGNC Symbol Acc HGNC 19100                              |
| E08      | SBH1220110 | ENST00000231454.6  | IL5    | ENSG00000113525  | interleukin 5 Source HGNC Symbol Acc HGNC 6016                                         |
| E09      | SBH1220111 | ENST00000401630.7  | IL6    | ENSG00000136244  | interleukin 6 Source HGNC Symbol Acc HGNC 6018                                         |
| E10      | SBH1220112 | ENST00000368485.8  | IL6R   | ENSG00000160712  | interleukin 6 receptor Source HGNC Symbol Acc HGNC 6019                                |
| E11      | SBH1219932 | ENST00000401931.1  | CXCL8  | ENSG00000169429  | C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025                        |
| E12      | SBH1220114 | ENST00000274520.1  | IL9    | ENSG00000145839  | interleukin 9 Source HGNC Symbol Acc HGNC 6029                                         |
| F01      | SBH0032107 | ENST00000397857.5  | ITGB2  | ENSG00000160255  | integrin subunit beta 2 Source HGNC Symbol Acc HGNC 6155                               |
| F02      | SBH0281530 | ENST00000645909.1  | KNG1   | ENSG00000113889  | kininogen 1 Source HGNC Symbol Acc HGNC 6383                                           |
| F03      | SBH0249281 | ENST00000418386.2  | LTA    | ENSG00000226979  | lymphotoxin alpha Source HGNC Symbol Acc HGNC 6709                                     |
| F04      | SBH1220578 | ENST00000429299.2  | LTB    | ENSG00000227507  | lymphotoxin beta Source HGNC Symbol Acc HGNC 6711                                      |
| F05      | SBH1220183 | ENST00000284818.6  | LY96   | ENSG00000154589  | lymphocyte antigen 96 Source HGNC Symbol Acc HGNC 17156                                |
| F06      | SBH0303234 | ENST00000648963.1  | MYD88  | ENSG00000172936  | MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562      |
| F07      | SBH1220264 | ENST00000651197.1  | NFKB1  | ENSG00000109320  | nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794                      |
| F08      | SBH0408796 | ENST00000313735.10 | NOS2   | ENSG000001007171 | nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873                               |
| F09      | SBH1220280 | ENST00000652686.1  | NR3C1  | ENSG00000113580  | nuclear receptor subfamily 3 group C member 1 Source HGNC Symbol Acc HGNC 7978         |
| F10      | SBH1220344 | ENST00000367468.10 | PTGS2  | ENSG000001073756 | prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605                 |

| Position | Assay      | Name              | Symbol  | Ensembl ID      | Description                                                                      |
|----------|------------|-------------------|---------|-----------------|----------------------------------------------------------------------------------|
| F11      | SBH1220370 | ENST00000220751.5 | RIPK2   | ENSG00000104312 | receptor interacting serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 10020 |
| F12      | SBH1220384 | ENST00000367774.1 | SELE    | ENSG00000007908 | selectin E Source HGNC Symbol Acc HGNC 10718                                     |
| G01      | SBH0413608 | ENST00000392680.6 | TIRAP   | ENSG00000150455 | TIR domain containing adaptor protein Source HGNC Symbol Acc HGNC 17192          |
| G02      | SBH1220460 | ENST00000506146.5 | TLR1    | ENSG00000174125 | toll like receptor 1 Source HGNC Symbol Acc HGNC 11847                           |
| G03      | SBH0671922 | ENST00000642700.1 | TLR2    | ENSG00000137462 | toll like receptor 2 Source HGNC Symbol Acc HGNC 11848                           |
| G04      | SBH1220462 | ENST00000513189.1 | TLR3    | ENSG00000164342 | toll like receptor 3 Source HGNC Symbol Acc HGNC 11849                           |
| G05      | SBH0092782 | ENST00000355622.8 | TLR4    | ENSG00000136869 | toll like receptor 4 Source HGNC Symbol Acc HGNC 11850                           |
| G06      | SBH1220463 | ENST00000366881.6 | TLR5    | ENSG00000187554 | toll like receptor 5 Source HGNC Symbol Acc HGNC 11851                           |
| G07      | SBH1220464 | ENST00000436693.6 | TLR6    | ENSG00000174130 | toll like receptor 6 Source HGNC Symbol Acc HGNC 16711                           |
| G08      | SBH1220465 | ENST00000380659.4 | TLR7    | ENSG00000196664 | toll like receptor 7 Source HGNC Symbol Acc HGNC 15631                           |
| G09      | SBH1220466 | ENST00000360658.2 | TLR9    | ENSG00000239732 | toll like receptor 9 Source HGNC Symbol Acc HGNC 15633                           |
| G10      | SBH1220471 | ENST00000449264.3 | TNF     | ENSG00000232810 | tumor necrosis factor Source HGNC Symbol Acc HGNC 11892                          |
| G11      | SBH1220480 | ENST00000599359.1 | TNFSF14 | ENSG00000125735 | TNF superfamily member 14 Source HGNC Symbol Acc HGNC 11930                      |
| G12      | SBH1220484 | ENST00000530541.1 | TOLLIP  | ENSG00000078902 | toll interacting protein Source HGNC Symbol Acc HGNC 16476                       |
| 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 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water                                   | 205410   |
| QuantiNova SYBR Green RT-PCR Kit (100)*    | For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water | 208152   |
| QuantiNova SYBR Green PCR Kit (100)*       | For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ 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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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