

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

## Human Interferons & Receptors

Cat. no. 249955 UPHS-064ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light 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 Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA Probe 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 Probe PCR 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 | ADAR   | CNTFR  | CRLF2 | CSF2RA  | CSF3R | CXCL10 | EBI3   | F3      | IFI16  | IFI27  | IFI30   | IFI35  |
| B | IFI44  | IFI44L | IFI6  | IFIH1   | IFIT1 | IFIT2  | IFIT3  | IFITM1  | IFITM2 | IFNA1  | IFNA14  | IFNA16 |
| C | IFNA2  | IFNA21 | IFNA4 | IFNA5   | IFNA6 | IFNA7  | IFNA8  | IFNAR1  | IFNAR2 | IFNB1  | IFNE    | IFNG   |
| D | IFNGR1 | IFNGR2 | IFNK  | IFNW1   | IFRD1 | IFRD2  | IL10RA | IL10RB  | IL11RA | IL12B  | IL13RA1 | IL15   |
| E | IL20RA | IL20RB | IL21R | IL22RA2 | IFNL2 | IFNLR1 | IFNL1  | IL2RB   | IL2RG  | IL31RA | IL3RA   | IL4R   |
| F | IL5RA  | IL6    | IL6R  | IL7R    | IL9R  | IRF1   | IRF2   | IRF2BP1 | IRF3   | IRF4   | IRF5    | IRF6   |
| G | IRF7   | IRF8   | IRGM  | ISG15   | LEPR  | MPL    | MX1    | OAS1    | PSME1  | PYHIN1 | SP110   | TTN    |
| H | ACTB   | B2M    | GAPDH | HPRT1   | RPLP0 | HGDC   | QIC    | QIC     | QIC    | PPC    | PPC     | PPC    |

## Gene table: QuantiNova LNA Probe PCR Focus Panel

| Position | Assay       | Name               | Symbol | Ensembl ID      | Description                                                                                  |
|----------|-------------|--------------------|--------|-----------------|----------------------------------------------------------------------------------------------|
| A01      | UPFH1132219 | ENST00000647597.1  | ADAR   | ENSG00000160710 | adenosine deaminase, RNA specific Source HGNC Symbol Acc HGNC 225                            |
| A02      | UPFH0473053 | ENST00000378980.8  | CNTFR  | ENSG00000122756 | ciliary neurotrophic factor receptor Source HGNC Symbol Acc HGNC 2170                        |
| A03      | UPFH0572997 | ENST00000381566.6  | CRLF2  | ENSG00000205755 | cytokine receptor like factor 2 Source HGNC Symbol Acc HGNC 14281                            |
| A04      | UPFH0060617 | ENST00000493312.6  | CSF2RA | ENSG00000198223 | colony stimulating factor 2 receptor alpha subunit Source HGNC Symbol Acc HGNC 2435          |
| A05      | UPFH0400766 | ENST00000526980.5  | CSF3R  | ENSG00000119535 | colony stimulating factor 3 receptor Source HGNC Symbol Acc HGNC 2439                        |
| A06      | UPFH0196315 | ENST00000306602.3  | CXCL10 | ENSG00000169245 | C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637                            |
| A07      | UPFH0245178 | ENST00000599339.1  | EBI3   | ENSG00000105246 | Epstein-Barr virus induced 3 Source HGNC Symbol Acc HGNC 3129                                |
| A08      | UPFH1132393 | ENST00000334047.12 | F3     | ENSG00000117525 | coagulation factor III, tissue factor Source HGNC Symbol Acc HGNC 3541                       |
| A09      | UPFH0267618 | ENST00000368131.8  | IFI16  | ENSG00000163565 | interferon gamma inducible protein 16 Source HGNC Symbol Acc HGNC 5395                       |
| A10      | UPFH0038444 | ENST00000621160.4  | IFI27  | ENSG00000165949 | interferon alpha inducible protein 27 Source HGNC Symbol Acc HGNC 5397                       |
| A11      | UPFH1132467 | ENST00000407280.4  | IFI30  | ENSG00000216490 | IFI30, lysosomal thiol reductase Source HGNC Symbol Acc HGNC 5398                            |
| A12      | UPFH0457575 | ENST00000396722.2  | IFI35  | ENSG00000068079 | interferon induced protein 35 Source HGNC Symbol Acc HGNC 5399                               |
| B01      | UPFH0171683 | ENST00000370747.9  | IFI44  | ENSG00000137965 | interferon induced protein 44 Source HGNC Symbol Acc HGNC 16938                              |
| B02      | UPFH0522819 | ENST00000474002.1  | IFI44L | ENSG00000137959 | interferon induced protein 44 like Source HGNC Symbol Acc HGNC 17817                         |
| B03      | UPFH1132468 | ENST00000361157.11 | IFI6   | ENSG00000126709 | interferon alpha inducible protein 6 Source HGNC Symbol Acc HGNC 4054                        |
| B04      | UPFH0315757 | ENST00000263642.2  | IFIH1  | ENSG00000115267 | interferon induced with helicase C domain 1 Source HGNC Symbol Acc HGNC 18873                |
| B05      | UPFH1132469 | ENST00000371804.4  | IFIT1  | ENSG00000185745 | interferon induced protein with tetratricopeptide repeats 1 Source HGNC Symbol Acc HGNC 5407 |
| B06      | UPFH1132470 | ENST00000638108.1  | IFIT2  | ENSG00000119922 | interferon induced protein with tetratricopeptide repeats 2 Source HGNC Symbol Acc HGNC 5409 |
| B07      | UPFH0190197 | ENST00000371811.4  | IFIT3  | ENSG00000119917 | interferon induced protein with tetratricopeptide repeats 3 Source HGNC Symbol Acc HGNC 5411 |
| B08      | UPFH1132471 | ENST00000408968.4  | IFITM1 | ENSG00000185885 | interferon induced transmembrane protein 1 Source HGNC Symbol Acc HGNC 5412                  |
| B09      | UPFH1132911 | ENST00000533141.1  | IFITM2 | ENSG00000185201 | interferon induced transmembrane protein 2 Source HGNC Symbol Acc HGNC 5413                  |
| B10      | UPFH0577805 | ENST00000276927.2  | IFNA1  | ENSG00000197919 | interferon alpha 1 Source HGNC Symbol Acc HGNC 5417                                          |
| B11      | UPFH0551752 | ENST00000380222.3  | IFNA14 | ENSG00000228083 | interferon alpha 14 Source HGNC Symbol Acc HGNC 5420                                         |
| B12      | UPFH0453868 | ENST00000380216.1  | IFNA16 | ENSG00000147885 | interferon alpha 16 Source HGNC Symbol Acc HGNC 5421                                         |
| C01      | UPFH0206613 | ENST00000380206.3  | IFNA2  | ENSG00000188379 | interferon alpha 2 Source HGNC Symbol Acc HGNC 5423                                          |
| C02      | UPFH0549578 | ENST00000380225.1  | IFNA21 | ENSG00000137080 | interferon alpha 21 Source HGNC Symbol Acc HGNC 5424                                         |
| C03      | UPFH0532650 | ENST00000421715.2  | IFNA4  | ENSG00000236637 | interferon alpha 4 Source HGNC Symbol Acc HGNC 5425                                          |
| C04      | UPFH0166720 | ENST00000610521.1  | IFNA5  | ENSG00000147873 | interferon alpha 5 Source HGNC Symbol Acc HGNC 5426                                          |
| C05      | UPFH0242819 | ENST00000259555.5  | IFNA6  | ENSG00000120235 | interferon alpha 6 Source HGNC Symbol Acc HGNC 5427                                          |
| C06      | UPFH0504281 | ENST00000239347.3  | IFNA7  | ENSG00000214042 | interferon alpha 7 Source HGNC Symbol Acc HGNC 5428                                          |
| C07      | UPFH0183316 | ENST00000380205.1  | IFNA8  | ENSG00000120242 | interferon alpha 8 Source HGNC Symbol Acc HGNC 5429                                          |
| C08      | UPFH1132472 | ENST00000270139.8  | IFNAR1 | ENSG00000142166 | interferon alpha and beta receptor subunit 1 Source HGNC Symbol Acc HGNC 5432                |
| C09      | UPFH0538480 | ENST00000382264.7  | IFNAR2 | ENSG00000159110 | interferon alpha and beta receptor subunit 2 Source HGNC Symbol Acc HGNC 5433                |
| C10      | UPFH1132806 | ENST00000380232.4  | IFNB1  | ENSG00000171855 | interferon beta 1 Source HGNC Symbol Acc HGNC 5434                                           |
|          |             | ENST00000448       |        | ENSG000000      |                                                                                              |

| Position | Assay       | Name               | Symbol  | Ensembl ID       | Description                                                                        |
|----------|-------------|--------------------|---------|------------------|------------------------------------------------------------------------------------|
| C11      | UPFH0445264 | 696.4              | IFNE    | 184995           | interferon epsilon Source HGNC Symbol Acc HGNC 18163                               |
| C12      | UPFH1132473 | ENST00000229135.4  | IFNG    | ENSG00000111537  | interferon gamma Source HGNC Symbol Acc HGNC 5438                                  |
| D01      | UPFH0492557 | ENST00000367739.8  | IFNGR1  | ENSG00000027697  | interferon gamma receptor 1 Source HGNC Symbol Acc HGNC 5439                       |
| D02      | UPFH0597617 | ENST00000545369.2  | IFNGR2  | ENSG000000159128 | interferon gamma receptor 2 Source HGNC Symbol Acc HGNC 5440                       |
| D03      | UPFH0019406 | ENST00000276943.2  | IFNK    | ENSG000000147896 | interferon kappa Source HGNC Symbol Acc HGNC 21714                                 |
| D04      | UPFH0416983 | ENST00000380229.3  | IFNW1   | ENSG000000177047 | interferon omega 1 Source HGNC Symbol Acc HGNC 5448                                |
| D05      | UPFH1132962 | ENST00000621379.4  | IFRD1   | ENSG00000006652  | interferon related developmental regulator 1 Source HGNC Symbol Acc HGNC 5456      |
| D06      | UPFH0097319 | ENST00000414734.5  | IFRD2   | ENSG000000214706 | interferon related developmental regulator 2 Source HGNC Symbol Acc HGNC 5457      |
| D07      | UPFH0594844 | ENST00000227752.7  | IL10RA  | ENSG000000110324 | interleukin 10 receptor subunit alpha Source HGNC Symbol Acc HGNC 5964             |
| D08      | UPFH1132476 | ENST00000290200.7  | IL10RB  | ENSG000000243646 | interleukin 10 receptor subunit beta Source HGNC Symbol Acc HGNC 5965              |
| D09      | UPFH0261153 | ENST00000555981.5  | IL11RA  | ENSG000000137070 | interleukin 11 receptor subunit alpha Source HGNC Symbol Acc HGNC 5967             |
| D10      | UPFH0131869 | ENST00000231228.2  | IL12B   | ENSG000000113302 | interleukin 12B Source HGNC Symbol Acc HGNC 5970                                   |
| D11      | UPFH0240636 | ENST00000371642.1  | IL13RA1 | ENSG000000131724 | interleukin 13 receptor subunit alpha 1 Source HGNC Symbol Acc HGNC 5974           |
| D12      | UPFH1132873 | ENST00000296545.11 | IL15    | ENSG000000164136 | interleukin 15 Source HGNC Symbol Acc HGNC 5977                                    |
| E01      | UPFH0519397 | ENST00000468393.5  | IL20RA  | ENSG000000016402 | interleukin 20 receptor subunit alpha Source HGNC Symbol Acc HGNC 6003             |
| E02      | UPFH0329470 | ENST00000329582.9  | IL20RB  | ENSG000000174564 | interleukin 20 receptor subunit beta Source HGNC Symbol Acc HGNC 6004              |
| E03      | UPFH0043452 | ENST00000395754.4  | IL21R   | ENSG000000103522 | interleukin 21 receptor Source HGNC Symbol Acc HGNC 6006                           |
| E04      | UPFH0393563 | ENST00000296980.6  | IL22RA2 | ENSG000000164485 | interleukin 22 receptor subunit alpha 2 Source HGNC Symbol Acc HGNC 14901          |
| E05      | UPFH0328492 | ENST00000331982.5  | IFNL2   | ENSG000000077238 | interferon lambda 2 Source HGNC Symbol Acc HGNC 18364                              |
| E06      | UPFH0348597 | ENST00000374421.7  | IFNLR1  | ENSG000000185436 | interferon lambda receptor 1 Source HGNC Symbol Acc HGNC 18584                     |
| E07      | UPFH0136143 | ENST00000333625.3  | IFNL1   | ENSG000000182393 | interferon lambda 1 Source HGNC Symbol Acc HGNC 18363                              |
| E08      | UPFH0018675 | ENST00000445595.1  | IL2RB   | ENSG000000100385 | interleukin 2 receptor subunit beta Source HGNC Symbol Acc HGNC 6009               |
| E09      | UPFH0559324 | ENST00000482750.5  | IL2RG   | ENSG000000147168 | interleukin 2 receptor subunit gamma Source HGNC Symbol Acc HGNC 6010              |
| E10      | UPFH0379580 | ENST00000396834.6  | IL31RA  | ENSG000000164509 | interleukin 31 receptor A Source HGNC Symbol Acc HGNC 18969                        |
| E11      | UPFH0253125 | ENST00000432757.6  | IL3RA   | ENSG000000185291 | interleukin 3 receptor subunit alpha Source HGNC Symbol Acc HGNC 6012              |
| E12      | UPFH0363455 | ENST00000563886.1  | IL4R    | ENSG000000077238 | interleukin 4 receptor Source HGNC Symbol Acc HGNC 6015                            |
| F01      | UPFH0198583 | ENST00000256452.7  | IL5RA   | ENSG000000091181 | interleukin 5 receptor subunit alpha Source HGNC Symbol Acc HGNC 6017              |
| F02      | UPFH1172910 | ENST00000258743.10 | IL6     | ENSG000000136244 | interleukin 6 Source HGNC Symbol Acc HGNC 6018                                     |
| F03      | UPFH1132484 | ENST00000622330.4  | IL6R    | ENSG000000160712 | interleukin 6 receptor Source HGNC Symbol Acc HGNC 6019                            |
| F04      | UPFH0314857 | ENST00000514217.5  | IL7R    | ENSG000000168685 | interleukin 7 receptor Source HGNC Symbol Acc HGNC 6024                            |
| F05      | UPFH0383667 | ENST00000244174.10 | IL9R    | ENSG000000124334 | interleukin 9 receptor Source HGNC Symbol Acc HGNC 6030                            |
| F06      | UPFH1132490 | ENST00000476613.1  | IRF1    | ENSG000000125347 | interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116                    |
| F07      | UPFH1132491 | ENST00000506230.5  | IRF2    | ENSG000000168310 | interferon regulatory factor 2 Source HGNC Symbol Acc HGNC 6117                    |
| F08      | UPFH0337923 | ENST00000302165.5  | IRF2BP1 | ENSG000000170604 | interferon regulatory factor 2 binding protein 1 Source HGNC Symbol Acc HGNC 21728 |
| F09      | UPFH0390278 | ENST00000599144.5  | IRF3    | ENSG000000126456 | interferon regulatory factor 3 Source HGNC Symbol Acc HGNC 6118                    |
| F10      | UPFH0051290 | ENST00000380956.9  | IRF4    | ENSG000000137265 | interferon regulatory factor 4 Source HGNC Symbol Acc HGNC 6119                    |

| Position | Assay       | Name               | Symbol | Ensembl ID      | Description                                                                  |
|----------|-------------|--------------------|--------|-----------------|------------------------------------------------------------------------------|
| F11      | UPFH1132492 | ENST00000479582.5  | IRF5   | ENSG00000128604 | interferon regulatory factor 5 Source HGNC Symbol Acc HGNC 6120              |
| F12      | UPFH0221685 | ENST00000367021.8  | IRF6   | ENSG00000117595 | interferon regulatory factor 6 Source HGNC Symbol Acc HGNC 6121              |
| G01      | UPFH1132493 | ENST00000348655.11 | IRF7   | ENSG00000185507 | interferon regulatory factor 7 Source HGNC Symbol Acc HGNC 6122              |
| G02      | UPFH0264126 | ENST00000564056.1  | IRF8   | ENSG00000140968 | interferon regulatory factor 8 Source HGNC Symbol Acc HGNC 5358              |
| G03      | UPFH0069624 | ENST00000522154.1  | IRGM   | ENSG00000237693 | immunity related GTPase M Source HGNC Symbol Acc HGNC 29597                  |
| G04      | UPFH1132494 | ENST00000379389.4  | ISG15  | ENSG00000187608 | ISG15 ubiquitin-like modifier Source HGNC Symbol Acc HGNC 4053               |
| G05      | UPFH0300038 | ENST00000371060.7  | LEPR   | ENSG00000116678 | leptin receptor Source HGNC Symbol Acc HGNC 6554                             |
| G06      | UPFH0133314 | ENST00000413998.7  | MPL    | ENSG00000117400 | MPL proto-oncogene, thrombopoietin receptor Source HGNC Symbol Acc HGNC 7217 |
| G07      | UPFH1132561 | ENST00000398600.6  | MX1    | ENSG00000157601 | MX dynamin like GTPase 1 Source HGNC Symbol Acc HGNC 7532                    |
| G08      | UPFH1132918 | ENST00000550689.1  | OAS1   | ENSG00000089127 | 2'-5'-oligoadenylate synthetase 1 Source HGNC Symbol Acc HGNC 8086           |
| G09      | UPFH0134682 | ENST00000559123.5  | PSME1  | ENSG00000092010 | proteasome activator subunit 1 Source HGNC Symbol Acc HGNC 9568              |
| G10      | UPFH0486885 | ENST00000458222.5  | PYHIN1 | ENSG00000163564 | pyrin and HIN domain family member 1 Source HGNC Symbol Acc HGNC 28894       |
| G11      | UPFH0204701 | ENST00000455674.2  | SP110  | ENSG00000135899 | SP110 nuclear body protein Source HGNC Symbol Acc HGNC 5401                  |
| G12      | UPFH1132742 | ENST00000591111.5  | TTN    | ENSG00000155657 | titin Source HGNC Symbol Acc HGNC 12403                                      |
| H01      | UPFH1132936 | ENST00000646664.1  | ACTB   | ENSG00000075624 | actin beta Source HGNC Symbol Acc HGNC 132                                   |
| H02      | UPFH1132937 | ENST00000544417.5  | B2M    | ENSG00000166710 | beta-2-microglobulin Source HGNC Symbol Acc HGNC 914                         |
| H03      | UPFH1132938 | ENST00000229239.10 | GAPDH  | ENSG00000111640 | glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141    |
| H04      | UPFH1132939 | ENST00000298556.8  | HPRT1  | ENSG00000165704 | hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157    |
| H05      | UPFH1132941 | ENST00000392514.9  | RPLP0  | ENSG00000089157 | ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371 |
| H06      | UPFH1126608 | UPL_HGDC           | HGDC   | UPL_HGDC        | Human Genomic DNA Contamination                                              |
| H07      | UPFH1126606 | UPL_QIC            | QIC    | UPL_QIC         | QuantiNova Internal Control                                                  |
| H08      | UPFH1126606 | UPL_QIC            | QIC    | UPL_QIC         | QuantiNova Internal Control                                                  |
| H09      | UPFH1126606 | UPL_QIC            | QIC    | UPL_QIC         | QuantiNova Internal Control                                                  |
| H10      | UPFH1126605 | UPL_PPC            | PPC    | UPL_PPC         | Positive PCR Control                                                         |
| H11      | UPFH1126605 | UPL_PPC            | PPC    | UPL_PPC         | Positive PCR Control                                                         |
| H12      | UPFH1126605 | UPL_PPC            | PPC    | UPL_PPC         | Positive PCR Control                                                         |



## Related products

| Product                                    | Contents                                                                                                                                                                                                                                               | Cat. no. |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| QuantiNova LNA Probe PCR QC Panel          | These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats                                                         | 249945   |
| 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 Probe RT-PCR Kit (100)*         | For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe 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 | 208352   |
| QuantiNova Probe PCR Kit (100)*            | For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water                                                                        | 208252   |

\*Larger kit sizes available.

The QuantiNova LNA Probe 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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