

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

## Rat NFkB Signaling Targets

Cat. no. 249955 UPRN-225ZR

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 | Adm     | Agf   | Akt1   | Aldh3a2 | Bcl2a1 | Bcl2l1           | Birc2    | Birc3    | C3     | C4a   | Ccl11 | Ccl12 |
| B | Ccl22   | Ccl5  | Ccnd1  | Ccr5    | Cd40   | Cd74             | Cd80     | Cd83     | Cdkn1a | Cfb   | Csf1  | Csf2  |
| C | Csf2rb  | Csf3  | Cxcl1  | Cxcl10  | Cxcl3  | Cxcl9            | Egfr     | Egr2     | F3     | F8    | Fas   | Faslg |
| D | Gadd45b | Icam1 | Ifnb1  | Ifng    | Il12b  | Il15             | Il1a     | Il1b     | Il1r2  | Il1rn | Il2   | Il2ra |
| E | Il4     | Il6   | Ins2   | Irf1    | Uta    | LOC1036943<br>81 | Map2k6   | Mitf     | Mmp9   | Myc   | Myd88 | Ncoa3 |
| F | Nfkb1   | Nfkb2 | Nfkbia | Nqo1    | Nr4a2  | Pdgfrb           | Plau     | Ptgs2    | Rel    | Rela  | Sele  | Selp  |
| G | Snap25  | Sod2  | Stat1  | Stat3   | Stat5b | LOC1036943<br>80 | Tnfrsf1b | Tnfrsf10 | Tp53   | Traf2 | Vcam1 | Xiap  |
| H | Actb    | B2m   | Hprt1  | Ldha    | Rplp1  | RGDC             | QIC      | QIC      | QIC    | PPC   | PPC   | PPC   |

## Gene table: QuantiNova LNA Probe PCR Focus Panel

| Position | Assay       | Name                 | Symbol  | Ensembl ID        | Description                                                                           |
|----------|-------------|----------------------|---------|-------------------|---------------------------------------------------------------------------------------|
| A01      | UPFR1061154 | ENSRNOT00000036718.1 | Adm     | ENSRNOG0000027030 | adrenomedullin Source RGD Symbol Acc 2047                                             |
| A02      | UPFR1049261 | ENSRNOT00000024917.4 | Agt     | ENSRNOG0000018445 | angiotensinogen Source RGD Symbol Acc 2069                                            |
| A03      | UPFR1083196 | ENSRNOT00000031164.3 | Akt1    | ENSRNOG0000028629 | AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081                              |
| A04      | UPFR1037207 | ENSRNOT00000066109.3 | Aldh3a2 | ENSRNOG0000002342 | aldehyde dehydrogenase 3 family, member A2 Source RGD Symbol Acc 61866                |
| A05      | UPFR1064713 | ENSRNOT00000039850.3 | Bcl2a1  | ENSRNOG0000047606 | BCL2-related protein A1 Source RGD Symbol Acc 620621                                  |
| A06      | UPFR1047186 | ENSRNOT00000010762.7 | Bcl2l1  | ENSRNOG0000007946 | Bcl2-like 1 Source RGD Symbol Acc 2200                                                |
| A07      | UPFR1050093 | ENSRNOT00000014560.6 | Birc2   | ENSRNOG0000010602 | baculoviral IAP repeat-containing 2 Source RGD Symbol Acc 620690                      |
| A08      | UPFR1015683 | ENSRNOT00000007702.7 | Birc3   | ENSRNOG0000005731 | baculoviral IAP repeat-containing 3 Source RGD Symbol Acc 621282                      |
| A09      | UPFR1069924 | ENSRNOT00000075494.1 | C3      | ENSRNOG0000046834 | complement C3 Source RGD Symbol Acc 2232                                              |
| A10      | UPFR1033991 | ENSRNOT00000072377.2 | C4a     | ENSRNOG0000047657 | complement C4A Source RGD Symbol Acc 620005                                           |
| A11      | UPFR1034165 | ENSRNOT00000009756.5 | Ccl11   | ENSRNOG0000007335 | C-C motif chemokine ligand 11 Source RGD Symbol Acc 3644                              |
| A12      | UPFR1080637 | ENSRNOT00000031626.5 | Ccl12   | ENSRNOG0000029768 | chemokine (C-C motif) ligand 12 Source RGD Symbol Acc 1309255                         |
| B01      | UPFR1070569 | ENSRNOT00000022167.3 | Ccl22   | ENSRNOG0000016535 | C-C motif chemokine ligand 22 Source RGD Symbol Acc 619933                            |
| B02      | UPFR1019085 | ENSRNOT00000014865.6 | Ccl5    | ENSRNOG0000010906 | C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069                              |
| B03      | UPFR1042457 | ENSRNOT00000088588.1 | Ccnd1   | ENSRNOG0000020918 | cyclin D1 Source RGD Symbol Acc 68384                                                 |
| B04      | UPFR1023768 | ENSRNOT00000082774.1 | Ccr5    | ENSRNOG0000049115 | C-C motif chemokine receptor 5 Source RGD Symbol Acc 620596                           |
| B05      | UPFR1023025 | ENSRNOT00000055148.4 | Cd40    | ENSRNOG0000018488 | CD40 molecule Source RGD Symbol Acc 619830                                            |
| B06      | UPFR1021207 | ENSRNOT00000025354.7 | Cd74    | ENSRNOG0000018735 | CD74 molecule Source RGD Symbol Acc 2313                                              |
| B07      | UPFR1064878 | ENSRNOT00000089625.1 | Cd80    | ENSRNOG0000001527 | Cd80 molecule Source RGD Symbol Acc 2314                                              |
| B08      | UPFR1076542 | ENSRNOT00000024458.5 | Cd83    | ENSRNOG0000018092 | CD83 molecule Source RGD Symbol Acc 1309677                                           |
| B09      | UPFR1028644 | ENSRNOT00000091731.1 | Cdkn1a  | ENSRNOG0000000521 | cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328                      |
| B10      | UPFR1097207 | ENSRNOT00000075928.2 | Cfb     | ENSRNOG0000000419 | complement factor B Source RGD Symbol Acc 2204                                        |
| B11      | UPFR1022984 | ENSRNOT00000081835.1 | Csf1    | ENSRNOG0000018659 | colony stimulating factor 1 Source RGD Symbol Acc 621063                              |
| B12      | UPFR1084630 | ENSRNOT00000032333.3 | Csf2    | ENSRNOG0000026805 | colony stimulating factor 2 Source RGD Symbol Acc 621065                              |
| C01      | UPFR1094813 | ENSRNOT00000000203.5 | Csf2rb  | ENSRNOG0000000187 | colony stimulating factor 2 receptor beta common subunit Source RGD Symbol Acc 620189 |
| C02      | UPFR1037448 | ENSRNOT00000011509.3 | Csf3    | ENSRNOG0000008525 | colony stimulating factor 3 Source RGD Symbol Acc 2426                                |
| C03      | UPFR1056296 | ENSRNOT00000003778.3 | Cxcl1   | ENSRNOG0000002802 | C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869                           |
| C04      | UPFR1049597 | ENSRNOT00000003075.7 | Cxcl10  | ENSRNOG0000022256 | C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209                          |
| C05      | UPFR1076775 | ENSRNOT00000034090.3 | Cxcl3   | ENSRNOG0000028043 | chemokine (C-X-C motif) ligand 3 Source RGD Symbol Acc 621812                         |
| C06      | UPFR1089821 | ENSRNOT00000003082.7 | Cxcl9   | ENSRNOG0000022242 | C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798                           |
| C07      | UPFR1091984 | ENSRNOT00000006087.2 | Egfr    | ENSRNOG0000004332 | epidermal growth factor receptor Source RGD Symbol Acc 2543                           |
| C08      | UPFR1023028 | ENSRNOT00000000792.4 | Egr2    | ENSRNOG0000000640 | early growth response 2 Source RGD Symbol Acc 621608                                  |
| C09      | UPFR1038904 | ENSRNOT00000015836.5 | F3      | ENSRNOG0000011800 | coagulation factor III, tissue factor Source RGD Symbol Acc 2587                      |
| C10      | UPFR1073371 | ENSRNOT00000045926.4 | F8      | ENSRNOG0000031197 | coagulation factor VIII Source RGD Symbol Acc 727845                                  |
|          |             | ENSRNOT000000        |         | ENSRNOG00         |                                                                                       |

| Position | Assay       | Name                 | Symbol       | Ensembl ID        | Description                                                                   |
|----------|-------------|----------------------|--------------|-------------------|-------------------------------------------------------------------------------|
| C11      | UPFR1075141 | 025928.5             | Fas          | 000019142         | Fas cell surface death receptor Source RGD Symbol Acc 619831                  |
| C12      | UPFR1108356 | ENSRNOT00000003998.2 | Faslg        | ENSRNOG0000002978 | Fas ligand Source RGD Symbol Acc 3880                                         |
| D01      | UPFR1054309 | ENSRNOT00000026871.4 | Gadd45b      | ENSRNOG0000019822 | growth arrest and DNA-damage-inducible, beta Source RGD Symbol Acc 1309080    |
| D02      | UPFR1031281 | ENSRNOT00000028066.5 | Icam1        | ENSRNOG0000020679 | intercellular adhesion molecule 1 Source RGD Symbol Acc 2857                  |
| D03      | UPFR1098156 | ENSRNOT00000008224.2 | Ifnb1        | ENSRNOG0000006268 | interferon beta 1 Source RGD Symbol Acc 2865                                  |
| D04      | UPFR1084134 | ENSRNOT00000009919.2 | Ifng         | ENSRNOG0000007468 | interferon gamma Source RGD Symbol Acc 2866                                   |
| D05      | UPFR1060283 | ENSRNOT00000005898.6 | Il12b        | ENSRNOG0000004380 | interleukin 12B Source RGD Symbol Acc 628704                                  |
| D06      | UPFR1102147 | ENSRNOT00000004590.6 | Il15         | ENSRNOG0000003439 | interleukin 15 Source RGD Symbol Acc 2887                                     |
| D07      | UPFR1066959 | ENSRNOT00000080818.1 | Il1a         | ENSRNOG0000004575 | interleukin 1 alpha Source RGD Symbol Acc 2890                                |
| D08      | UPFR1121351 | ENSRNOT00000006308.4 | Il1b         | ENSRNOG0000004649 | interleukin 1 beta Source RGD Symbol Acc 2891                                 |
| D09      | UPFR1058134 | ENSRNOT00000019415.5 | Il1r2        | ENSRNOG0000014378 | interleukin 1 receptor type 2 Source RGD Symbol Acc 621147                    |
| D10      | UPFR1086251 | ENSRNOT00000007949.6 | Il1rn        | ENSRNOG0000005871 | interleukin 1 receptor antagonist Source RGD Symbol Acc 621159                |
| D11      | UPFR1070791 | ENSRNOT00000023327.2 | Il2          | ENSRNOG0000017348 | interleukin 2 Source RGD Symbol Acc 620047                                    |
| D12      | UPFR1114337 | ENSRNOT00000073144.2 | Il2ra        | ENSRNOG0000047647 | interleukin 2 receptor subunit alpha Source RGD Symbol Acc 2895               |
| E01      | UPFR1099283 | ENSRNOT00000010029.3 | Il4          | ENSRNOG0000007624 | interleukin 4 Source RGD Symbol Acc 2898                                      |
| E02      | UPFR1098910 | ENSRNOT00000013732.6 | Il6          | ENSRNOG0000010278 | interleukin 6 Source RGD Symbol Acc 2901                                      |
| E03      | UPFR1114751 | ENSRNOT00000027656.3 | Ins2         | ENSRNOG0000020405 | insulin 2 Source RGD Symbol Acc 2916                                          |
| E04      | UPFR1043289 | ENSRNOT00000010968.6 | Irf1         | ENSRNOG0000008144 | interferon regulatory factor 1 Source RGD Symbol Acc 2920                     |
| E05      | UPFR1116910 | ENSRNOT00000088936.1 | Lta          | ENSRNOG000000838  | lymphotoxin alpha Source RGD Symbol Acc 3020                                  |
| E06      | UPFR1050435 | ENSRNOT00000089411.1 | LOC103694381 | ENSRNOG0000058566 | lymphotoxin-beta Source RGD Symbol Acc 9083628                                |
| E07      | UPFR1098004 | ENSRNOT00000006217.6 | Map2k6       | ENSRNOG0000004437 | mitogen-activated protein kinase kinase 6 Source RGD Symbol Acc 620666        |
| E08      | UPFR1057784 | ENSRNOT00000083127.1 | Mitf         | ENSRNOG0000008658 | melanocyte inducing transcription factor Source RGD Symbol Acc 3092           |
| E09      | UPFR1032957 | ENSRNOT00000023965.3 | Mmp9         | ENSRNOG0000017539 | matrix metalloproteinase 9 Source RGD Symbol Acc 621320                       |
| E10      | UPFR1101439 | ENSRNOT00000006188.5 | Myc          | ENSRNOG0000004500 | MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130      |
| E11      | UPFR1120879 | ENSRNOT00000018341.5 | Myd88        | ENSRNOG0000013634 | MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043 |
| E12      | UPFR1072465 | ENSRNOT00000007768.7 | Ncoa3        | ENSRNOG0000005616 | nuclear receptor coactivator 3 Source RGD Symbol Acc 620109                   |
| F01      | UPFR1116688 | ENSRNOT00000036838.4 | Nfkb1        | ENSRNOG0000023258 | nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498                  |
| F02      | UPFR1025860 | ENSRNOT00000026235.3 | Nfkb2        | ENSRNOG0000019311 | nuclear factor kappa B subunit 2 Source RGD Symbol Acc 1307189                |
| F03      | UPFR1024664 | ENSRNOT00000009894.6 | Nfkbia       | ENSRNOG0000007390 | NFkB inhibitor alpha Source RGD Symbol Acc 3171                               |
| F04      | UPFR1111217 | ENSRNOT00000017174.5 | Nqo1         | ENSRNOG0000012772 | NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503                    |
| F05      | UPFR1088324 | ENSRNOT00000078001.1 | Nr4a2        | ENSRNOG0000005600 | nuclear receptor subfamily 4, group A, member 2 Source RGD Symbol Acc 3202    |
| F06      | UPFR1088903 | ENSRNOT00000023196.5 | Pdgfb        | ENSRNOG0000017197 | platelet derived growth factor subunit B Source RGD Symbol Acc 3283           |
| F07      | UPFR1088915 | ENSRNOT00000014273.5 | Plau         | ENSRNOG0000010516 | plasminogen activator, urokinase Source RGD Symbol Acc 3343                   |
| F08      | UPFR1035449 | ENSRNOT00000003567.4 | Ptgs2        | ENSRNOG0000002525 | prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349            |
| F09      | UPFR1066569 | ENSRNOT00000081077.1 | Rel          | ENSRNOG0000054437 | REL proto-oncogene, NF-kB subunit Source RGD Symbol Acc 1311231               |
| F10      | UPFR1070877 | ENSRNOT00000045233.3 | Rela         | ENSRNOG0000030888 | RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889               |

| Position | Assay       | Name                 | Symbol       | Ensembl ID        | Description                                                                      |
|----------|-------------|----------------------|--------------|-------------------|----------------------------------------------------------------------------------|
| F11      | UPFR1029154 | ENSRNOT00000030677.3 | Sele         | ENSRNOG0000002723 | selectin E Source RGD Symbol Acc 3654                                            |
| F12      | UPFR1033299 | ENSRNOT00000076879.2 | Selp         | ENSRNOG0000002794 | selectin P Source RGD Symbol Acc 3656                                            |
| G01      | UPFR1107645 | ENSRNOT00000007998.7 | Snap25       | ENSRNOG0000006037 | synaptosomal-associated protein 25 Source MGI Symbol Acc MGI 98331               |
| G02      | UPFR1090502 | ENSRNOT00000025794.4 | Sod2         | ENSRNOG0000019048 | superoxide dismutase 2 Source RGD Symbol Acc 3732                                |
| G03      | UPFR1068760 | ENSRNOT00000083514.1 | Stat1        | ENSRNOG0000014079 | signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747 |
| G04      | UPFR1040072 | ENSRNOT00000026760.4 | Stat3        | ENSRNOG0000019742 | signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772    |
| G05      | UPFR1050387 | ENSRNOT00000026354.3 | Stat5b       | ENSRNOG0000019075 | signal transducer and activator of transcription 5B Source RGD Symbol Acc 3774   |
| G06      | UPFR1098022 | ENSRNOT00000079677.1 | LOC103694380 | ENSRNOG0000055156 | tumor necrosis factor-like Source RGD Symbol Acc 9404643                         |
| G07      | UPFR1064277 | ENSRNOT00000022478.4 | Tnfrsf1b     | ENSRNOG0000016575 | TNF receptor superfamily member 1B Source RGD Symbol Acc 621238                  |
| G08      | UPFR1107113 | ENSRNOT00000017758.5 | Tnfsf10      | ENSRNOG0000013269 | TNF superfamily member 10 Source RGD Symbol Acc 628734                           |
| G09      | UPFR1095007 | ENSRNOT00000085115.1 | Tp53         | ENSRNOG0000010756 | tumor protein p53 Source RGD Symbol Acc 3889                                     |
| G10      | UPFR1056890 | ENSRNOT00000008253.6 | Traf2        | ENSRNOG0000006238 | Tnf receptor-associated factor 2 Source RGD Symbol Acc 1310457                   |
| G11      | UPFR1101375 | ENSRNOT00000019377.5 | Vcam1        | ENSRNOG0000014333 | vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952                     |
| G12      | UPFR1049285 | ENSRNOT00000009336.3 | Xiap         | ENSRNOG0000006967 | X-linked inhibitor of apoptosis Source RGD Symbol Acc 620692                     |
| H01      | UPFR1132952 | ENSRNOT00000080216.1 | Actb         | ENSRNOG0000034254 | actin, beta Source RGD Symbol Acc 628837                                         |
| H02      | UPFR1132953 | ENSRNOT00000023017.5 | B2m          | ENSRNOG0000017123 | beta-2 microglobulin Source RGD Symbol Acc 2189                                  |
| H03      | UPFR1132959 | ENSRNOT00000065935.3 | Hprt1        | ENSRNOG0000048561 | hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826              |
| H04      | UPFR1018740 | ENSRNOT00000017468.2 | Ldha         | ENSRNOG0000013009 | lactate dehydrogenase A Source RGD Symbol Acc 2996                               |
| H05      | UPFR1132958 | ENSRNOT00000018820.5 | Rplp1        | ENSRNOG0000013874 | ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774          |
| H06      | UPFR1126610 | UPL_RGDC             | RGDC         | UPL_RGDC          | Rat 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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