

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

## Rat Protease Activated Receptor Signaling

Cat. no. 249955 UPRN-159ZA

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 (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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 | Adcy7   | Akt1     | Ccl12 | Cd55  | Cdkn1a | Csf1  | Csf2    | Ccn2         | Ctsg   | Cxcl3        | Ccn1  | Dkk1    |
| B | Egr1    | Elk1     | Ets1  | F10   | F2     | F2r   | F2rl1   | F2rl2        | F2rl3  | F3           | F7    | Gata2   |
| C | Gja1    | Gnai1    | Hbegf | Hmger | Hras   | Hspa5 | Icam1   | Ikbb         | Il10   | Il13         | Il1b  | Il4     |
| D | Il6     | Itgad    | Itgav | Itgb1 | Junb   | Kdr   | Kitlg   | Map2k1       | Mapk14 | LOC103694877 | Mmp1  | Mmp2    |
| E | Nab2    | Nfkb1    | Nr4a1 | Plau  | Plaur  | Plek  | Plg     | Prkca        | Prkce  | Proc         | Procr | Plgs2   |
| F | Plk2    | Ptpn11   | Rel   | Rela  | Rhoa   | Rhoh  | Rps6kb1 | S1pr1        | S1pr3  | Sele         | Selp  | Serpnb2 |
| G | Serpnb5 | Serpine1 | Src   | Tfpi  | Tgfb1  | Thbd  | Thbs1   | LOC103694380 | Tp53   | Vcam1        | Vegfa | Vegfc   |
| 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      | UPFR1094398 | ENSRNOT00000020700.5 | Adcy7  | ENSRNOG0000014776 | adenylate cyclase 7 Source RGD Symbol Acc 619966                                     |
| A02      | UPFR1083196 | ENSRNOT00000031164.3 | Akt1   | ENSRNOG0000028629 | AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081                             |
| A03      | UPFR1080637 | ENSRNOT00000031626.5 | Ccl12  | ENSRNOG0000029768 | chemokine (C-C motif) ligand 12 Source RGD Symbol Acc 1309255                        |
| A04      | UPFR1055916 | ENSRNOT00000005284.6 | Cd55   | ENSRNOG0000003927 | CD55 molecule Source RGD Symbol Acc 620651                                           |
| A05      | UPFR1028644 | ENSRNOT00000091731.1 | Cdkn1a | ENSRNOG0000000521 | cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328                     |
| A06      | UPFR1022984 | ENSRNOT00000081835.1 | Csf1   | ENSRNOG0000018659 | colony stimulating factor 1 Source RGD Symbol Acc 621063                             |
| A07      | UPFR1084630 | ENSRNOT00000032333.3 | Csf2   | ENSRNOG0000026805 | colony stimulating factor 2 Source RGD Symbol Acc 621065                             |
| A08      | UPFR1047569 | ENSRNOT00000089196.1 | Ccn2   | ENSRNOG0000015036 | cellular communication network factor 2 Source RGD Symbol Acc 621392                 |
| A09      | UPFR1054610 | ENSRNOT00000059677.2 | Ctsg   | ENSRNOG0000020647 | cathepsin G Source RGD Symbol Acc 1307681                                            |
| A10      | UPFR1076775 | ENSRNOT00000034090.3 | Cxcl3  | ENSRNOG0000028043 | chemokine (C-X-C motif) ligand 3 Source RGD Symbol Acc 621812                        |
| A11      | UPFR1080474 | ENSRNOT00000019501.4 | Ccn1   | ENSRNOG0000014350 | cellular communication network factor 1 Source RGD Symbol Acc 620763                 |
| A12      | UPFR1075162 | ENSRNOT00000015771.7 | Dkk1   | ENSRNOG0000011692 | dickkopf WNT signaling pathway inhibitor 1 Source RGD Symbol Acc 1307313             |
| B01      | UPFR1034050 | ENSRNOT00000026303.4 | Egr1   | ENSRNOG0000019422 | early growth response 1 Source RGD Symbol Acc 2544                                   |
| B02      | UPFR1044171 | ENSRNOT00000013522.5 | Elk1   | ENSRNOG0000010171 | ELK1, ETS transcription factor Source RGD Symbol Acc 1598663                         |
| B03      | UPFR1072908 | ENSRNOT00000011925.4 | Ets1   | ENSRNOG0000008941 | ETS proto-oncogene 1, transcription factor Source RGD Symbol Acc 2583                |
| B04      | UPFR1074080 | ENSRNOT00000026677.6 | F10    | ENSRNOG0000033444 | coagulation factor X Source RGD Symbol Acc 61850                                     |
| B05      | UPFR1087878 | ENSRNOT00000022233.5 | F2     | ENSRNOG0000016325 | coagulation factor II Source RGD Symbol Acc 61996                                    |
| B06      | UPFR1094290 | ENSRNOT00000074626.2 | F2r    | ENSRNOG0000048043 | coagulation factor II (thrombin) receptor Source RGD Symbol Acc 2586                 |
| B07      | UPFR1082275 | ENSRNOT00000061580.1 | F2r1   | ENSRNOG0000018003 | F2R like trypsin receptor 1 Source RGD Symbol Acc 620866                             |
| B08      | UPFR1017040 | ENSRNOT00000024292.2 | F2r2   | ENSRNOG0000018054 | coagulation factor II (thrombin) receptor-like 2 Source RGD Symbol Acc 620871        |
| B09      | UPFR1028842 | ENSRNOT00000072664.2 | F2r3   | ENSRNOG0000048186 | F2R like thrombin or trypsin receptor 3 Source RGD Symbol Acc 620872                 |
| B10      | UPFR1038904 | ENSRNOT00000015836.5 | F3     | ENSRNOG0000011800 | coagulation factor III, tissue factor Source RGD Symbol Acc 2587                     |
| B11      | UPFR1053708 | ENSRNOT00000037806.2 | F7     | ENSRNOG0000032737 | coagulation factor VII Source RGD Symbol Acc 628678                                  |
| B12      | UPFR1085619 | ENSRNOT00000017240.2 | Gata2  | ENSRNOG0000012347 | GATA binding protein 2 Source RGD Symbol Acc 2664                                    |
| C01      | UPFR1122020 | ENSRNOT00000001054.4 | Gja1   | ENSRNOG0000000805 | gap junction protein, alpha 1 Source RGD Symbol Acc 2690                             |
| C02      | UPFR1071302 | ENSRNOT00000091004.1 | Gnai1  | ENSRNOG0000057096 | G protein subunit alpha i1 Source RGD Symbol Acc 2713                                |
| C03      | UPFR1043686 | ENSRNOT00000025157.6 | Hbegf  | ENSRNOG0000018646 | heparin-binding EGF-like growth factor Source RGD Symbol Acc 2526                    |
| C04      | UPFR1042968 | ENSRNOT00000022055.4 | Hmgcr  | ENSRNOG0000016122 | 3-hydroxy-3-methylglutaryl-CoA reductase Source RGD Symbol Acc 2803                  |
| C05      | UPFR1076419 | ENSRNOT00000022363.6 | Hras   | ENSRNOG0000016611 | HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827                               |
| C06      | UPFR1074347 | ENSRNOT00000025067.6 | Hspa5  | ENSRNOG0000018294 | heat shock protein family A member 5 Source RGD Symbol Acc 2843                      |
| C07      | UPFR1031281 | ENSRNOT00000028066.5 | Icam1  | ENSRNOG0000020679 | intercellular adhesion molecule 1 Source RGD Symbol Acc 2857                         |
| C08      | UPFR1104220 | ENSRNOT00000025851.4 | Ikbkb  | ENSRNOG0000019073 | inhibitor of nuclear factor kappa B kinase subunit beta Source RGD Symbol Acc 621375 |
| C09      | UPFR1113235 | ENSRNOT00000006246.5 | Il10   | ENSRNOG0000004647 | interleukin 10 Source RGD Symbol Acc 2886                                            |
| C10      | UPFR1038252 | ENSRNOT00000010121.2 | Il13   | ENSRNOG0000007652 | interleukin 13 Source RGD Symbol Acc 68949                                           |
|          |             | ENSRNOT000000        |        | ENSRNOG00         |                                                                                      |

| Position | Assay       | Name                 | Symbol       | Ensembl ID        | Description                                                                           |
|----------|-------------|----------------------|--------------|-------------------|---------------------------------------------------------------------------------------|
| C11      | UPFR1121351 | 006308.4             | Il1b         | 000004649         | interleukin 1 beta Source RGD Symbol Acc 2891                                         |
| C12      | UPFR1099283 | ENSRNOT00000010029.3 | Il4          | ENSRNOG0000007624 | interleukin 4 Source RGD Symbol Acc 2898                                              |
| D01      | UPFR1098910 | ENSRNOT00000013732.6 | Il6          | ENSRNOG0000010278 | interleukin 6 Source RGD Symbol Acc 2901                                              |
| D02      | UPFR1089159 | ENSRNOT00000026748.4 | Itgad        | ENSRNOG0000019728 | integrin subunit alpha M Source RGD Symbol Acc 2926                                   |
| D03      | UPFR1097241 | ENSRNOT00000006961.7 | Itgav        | ENSRNOG0000004912 | integrin subunit alpha V Source RGD Symbol Acc 1310613                                |
| D04      | UPFR1091655 | ENSRNOT00000014785.5 | Itgb1        | ENSRNOG0000010966 | integrin subunit beta 1 Source RGD Symbol Acc 2927                                    |
| D05      | UPFR1102181 | ENSRNOT00000067780.3 | Junb         | ENSRNOG0000042838 | JunB proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2944     |
| D06      | UPFR1041145 | ENSRNOT00000085089.1 | Kdr          | ENSRNOG0000046829 | kinase insert domain receptor Source RGD Symbol Acc 2965                              |
| D07      | UPFR1087511 | ENSRNOT00000085097.1 | Kitlg        | ENSRNOG0000005386 | KIT ligand Source RGD Symbol Acc 3086                                                 |
| D08      | UPFR1053192 | ENSRNOT00000013933.6 | Map2k1       | ENSRNOG0000010176 | mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495                 |
| D09      | UPFR1036984 | ENSRNOT00000000617.8 | Mapk14       | ENSRNOG0000000513 | mitogen activated protein kinase 14 Source RGD Symbol Acc 70496                       |
| D10      | UPFR1126542 | ENSRNOT00000008608.4 | LOC103694877 | ENSRNOG0000006589 | macrophage migration inhibitory factor Source RGD Symbol Acc 621163                   |
| D11      | UPFR1101595 | ENSRNOT00000012595.3 | Mmp1         | ENSRNOG0000032353 | matrix metalloproteinase 1 Source RGD Symbol Acc 1307917                              |
| D12      | UPFR1080151 | ENSRNOT00000022679.6 | Mmp2         | ENSRNOG0000016695 | matrix metalloproteinase 2 Source RGD Symbol Acc 621316                               |
| E01      | UPFR1024113 | ENSRNOT00000057745.3 | Nab2         | ENSRNOG0000008415 | Ngfi-A binding protein 2 Source RGD Symbol Acc 1311712                                |
| E02      | UPFR1116688 | ENSRNOT00000036838.4 | Nfkb1        | ENSRNOG0000023258 | nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498                          |
| E03      | UPFR1086234 | ENSRNOT00000010171.4 | Nr4a1        | ENSRNOG0000007607 | nuclear receptor subfamily 4, group A, member 1 Source RGD Symbol Acc 620029          |
| E04      | UPFR1088915 | ENSRNOT00000014273.5 | Plau         | ENSRNOG0000010516 | plasminogen activator, urokinase Source RGD Symbol Acc 3343                           |
| E05      | UPFR1041940 | ENSRNOT00000075167.3 | Plaur        | ENSRNOG0000037931 | plasminogen activator, urokinase receptor Source RGD Symbol Acc 620597                |
| E06      | UPFR1098667 | ENSRNOT00000007044.5 | Plek         | ENSRNOG0000005214 | pleckstrin Source RGD Symbol Acc 1308269                                              |
| E07      | UPFR1070729 | ENSRNOT00000023368.5 | Plg          | ENSRNOG0000017223 | plasminogen Source RGD Symbol Acc 619893                                              |
| E08      | UPFR1034906 | ENSRNOT00000004699.8 | Prkca        | ENSRNOG0000003491 | protein kinase C, alpha Source RGD Symbol Acc 3395                                    |
| E09      | UPFR1107353 | ENSRNOT00000020959.7 | Prkce        | ENSRNOG0000015603 | protein kinase C, epsilon Source RGD Symbol Acc 61925                                 |
| E10      | UPFR1113457 | ENSRNOT00000019596.4 | Proc         | ENSRNOG0000014376 | protein C, inactivator of coagulation factors Va and VIIIa Source RGD Symbol Acc 3411 |
| E11      | UPFR1020319 | ENSRNOT00000055254.4 | Procr        | ENSRNOG0000019330 | protein C receptor Source RGD Symbol Acc 1305991                                      |
| E12      | UPFR1035449 | ENSRNOT00000003567.4 | Ptgs2        | ENSRNOG0000002525 | prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349                    |
| F01      | UPFR1115915 | ENSRNOT00000011219.6 | Ptk2         | ENSRNOG0000007916 | protein tyrosine kinase 2 Source RGD Symbol Acc 3443                                  |
| F02      | UPFR1116105 | ENSRNOT00000046323.5 | Ptpn11       | ENSRNOG0000030124 | protein tyrosine phosphatase, non-receptor type 11 Source RGD Symbol Acc 3447         |
| F03      | UPFR1066569 | ENSRNOT00000081077.1 | Rel          | ENSRNOG0000054437 | REL proto-oncogene, NF-kB subunit Source RGD Symbol Acc 1311231                       |
| F04      | UPFR1070877 | ENSRNOT00000045233.3 | Rela         | ENSRNOG0000030888 | RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889                       |
| F05      | UPFR1119707 | ENSRNOT00000071664.2 | Rhoa         | ENSRNOG0000050519 | ras homolog family member A Source RGD Symbol Acc 619921                              |
| F06      | UPFR1126536 | ENSRNOT00000003425.4 | Rhoh         | ENSRNOG0000002540 | ras homolog family member H Source RGD Symbol Acc 1307623                             |
| F07      | UPFR1107808 | ENSRNOT00000005226.4 | Rps6kb1      | ENSRNOG0000003919 | ribosomal protein S6 kinase B1 Source RGD Symbol Acc 620683                           |
| F08      | UPFR1049908 | ENSRNOT00000018318.3 | S1pr1        | ENSRNOG0000013683 | sphingosine-1-phosphate receptor 1 Source RGD Symbol Acc 61958                        |
| F09      | UPFR1107844 | ENSRNOT00000019473.3 | S1pr3        | ENSRNOG0000014524 | sphingosine-1-phosphate receptor 3 Source RGD Symbol Acc 1583843                      |
| F10      | UPFR1029154 | ENSRNOT00000030677.3 | Sele         | ENSRNOG0000002723 | selectin E Source RGD Symbol Acc 3654                                                 |

| Position | Assay       | Name                  | Symbol       | Ensembl ID        | Description                                                                   |
|----------|-------------|-----------------------|--------------|-------------------|-------------------------------------------------------------------------------|
| F11      | UPFR1033299 | ENSRNOT00000076879.2  | Selp         | ENSRNOG0000002794 | selectin P Source RGD Symbol Acc 3656                                         |
| F12      | UPFR1020681 | ENSRNOT00000003409.5  | Serpinb2     | ENSRNOG0000002460 | serpin family B member 2 Source RGD Symbol Acc 621823                         |
| G01      | UPFR1103490 | ENSRNOT00000003625.7  | Serpinb5     | ENSRNOG0000002640 | serpin family B member 5 Source RGD Symbol Acc 69342                          |
| G02      | UPFR1051798 | ENSRNOT00000001916.2  | Serpine1     | ENSRNOG0000001414 | serpin family E member 1 Source RGD Symbol Acc 3249                           |
| G03      | UPFR1050158 | ENSRNOT00000012739.4  | Src          | ENSRNOG0000009495 | SRC proto-oncogene, non-receptor tyrosine kinase Source RGD Symbol Acc 620795 |
| G04      | UPFR1049469 | ENSRNOT00000006787.7  | Tfpi         | ENSRNOG0000005039 | tissue factor pathway inhibitor Source RGD Symbol Acc 61914                   |
| G05      | UPFR1103881 | ENSRNOT00000028051.4  | Tgfb1        | ENSRNOG0000020652 | transforming growth factor, beta 1 Source RGD Symbol Acc 69051                |
| G06      | UPFR1103035 | ENSRNOT00000006200.3  | Thbd         | ENSRNOG0000004687 | thrombomodulin Source RGD Symbol Acc 621299                                   |
| G07      | UPFR1104745 | ENSRNOT000000083351.1 | Thbs1        | ENSRNOG0000045829 | thrombospondin 1 Source RGD Symbol Acc 1588455                                |
| G08      | UPFR1098022 | ENSRNOT00000079677.1  | LOC103694380 | ENSRNOG0000055156 | tumor necrosis factor-like Source RGD Symbol Acc 9404643                      |
| G09      | UPFR1095007 | ENSRNOT000000085115.1 | Tp53         | ENSRNOG0000010756 | tumor protein p53 Source RGD Symbol Acc 3889                                  |
| G10      | UPFR1101375 | ENSRNOT00000019377.5  | Vcam1        | ENSRNOG0000014333 | vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952                  |
| G11      | UPFR1117908 | ENSRNOT00000026559.5  | Vegfa        | ENSRNOG0000019598 | vascular endothelial growth factor A Source RGD Symbol Acc 619991             |
| G12      | UPFR1108264 | ENSRNOT00000015529.4  | Vegfc        | ENSRNOG0000011416 | vascular endothelial growth factor C Source RGD Symbol Acc 619800             |
| H01      | UPFR1132952 | ENSRNOT000000080216.1 | 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 | ENSRNOT000000065935.3 | 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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