

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

## Rat Osmotic Stress

Cat. no. 249955 UPRN-151ZR

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 | Abcb1a | Adm    | Agf   | Agtr1a  | Alk1    | Aqp1             | Aqp2   | Aqp3    | Aqp4             | Aqp5    | Aqp9   | Aif4    |
| B | Atp1a1 | Atp1b1 | Avp   | Calr    | Cd9     | Cfr              | Cryab  | Ccn2    | Ddit3            | Dusp1   | Edn1   | Egfr    |
| C | Egr1   | Egr3   | Fos   | Gadd45a | Gadd45b | Gadd45g          | Guca2a | Hmx1    | Hsp90aa1         | Hspa1a  | Hspa4  | Hspa4l  |
| D | Hspa5  | Hspb1  | Il1b  | Ins2    | Itgb1   | Jun              | Kcnj1  | Lcn2    | LOC1036943<br>81 | Map2k2  | Map3k1 | Mapk1   |
| E | Mapk8  | Mlc1   | Nfat5 | Nfkbia  | Nox3    | Npr1             | Odc1   | Oxt     | LOC1009107<br>32 | Pax2    | Pck2   | Pdia4   |
| F | Plat   | Plk2   | Plk2b | Sgk1    | Slc12a2 | Slc14a2          | Slc2a1 | Slc38a2 | Slc9a1           | Slc6a12 | Slc6a6 | Slc9a2  |
| G | Slc9a3 | Snai1  | Src   | Tat     | Tgfa    | LOC1036943<br>80 | Tp53   | Tpm4    | Trpv4            | Vegfa   | Vim    | Zfp361l |
| 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      | UPFR1045141 | ENSRNOT00000037712.5 | Abcb1a   | ENSRNOG0000008012 | ATP binding cassette subfamily B member 4 Source RGD Symbol Acc 620248                         |
| A02      | UPFR1061154 | ENSRNOT00000036718.1 | Adm      | ENSRNOG0000027030 | adrenomedullin Source RGD Symbol Acc 2047                                                      |
| A03      | UPFR1049261 | ENSRNOT00000024917.4 | Agt      | ENSRNOG0000018445 | angiotensinogen Source RGD Symbol Acc 2069                                                     |
| A04      | UPFR1021418 | ENSRNOT00000038532.3 | Agtr1a   | ENSRNOG0000018346 | angiotensin II receptor, type 1a Source RGD Symbol Acc 2070                                    |
| A05      | UPFR1083196 | ENSRNOT00000031164.3 | Akt1     | ENSRNOG0000028629 | AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081                                       |
| A06      | UPFR1107660 | ENSRNOT00000015692.2 | Aqp1     | ENSRNOG0000011648 | aquaporin 1 Source RGD Symbol Acc 2141                                                         |
| A07      | UPFR1069964 | ENSRNOT00000091717.1 | Aqp2     | ENSRNOG0000054378 | aquaporin 2 Source RGD Symbol Acc 2142                                                         |
| A08      | UPFR1078304 | ENSRNOT00000013803.3 | Aqp3     | ENSRNOG0000009797 | aquaporin 3 Source RGD Symbol Acc 68428                                                        |
| A09      | UPFR1087107 | ENSRNOT00000068150.3 | Aqp4     | ENSRNOG0000016043 | aquaporin 4 Source RGD Symbol Acc 2143                                                         |
| A10      | UPFR1081162 | ENSRNOT00000084911.1 | Aqp5     | ENSRNOG0000051970 | aquaporin 5 Source RGD Symbol Acc 2144                                                         |
| A11      | UPFR1016120 | ENSRNOT00000087980.1 | Aqp9     | ENSRNOG0000061883 | aquaporin 9 Source RGD Symbol Acc 68433                                                        |
| A12      | UPFR1067882 | ENSRNOT00000065304.4 | Atf4     | ENSRNOG0000017801 | activating transcription factor 4 Source RGD Symbol Acc 621863                                 |
| B01      | UPFR1092376 | ENSRNOT00000040430.4 | Atp1a1   | ENSRNOG0000030019 | ATPase Na <sup>+</sup> /K <sup>+</sup> transporting subunit alpha 1 Source RGD Symbol Acc 2167 |
| B02      | UPFR1016066 | ENSRNOT00000076578.1 | Atp1b1   | ENSRNOG0000002934 | ATPase Na <sup>+</sup> /K <sup>+</sup> transporting subunit beta 1 Source RGD Symbol Acc 2170  |
| B03      | UPFR1013745 | ENSRNOT00000028833.5 | Avp      | ENSRNOG0000021229 | arginine vasopressin Source RGD Symbol Acc 2184                                                |
| B04      | UPFR1077775 | ENSRNOT00000040491.6 | Calr     | ENSRNOG0000003029 | calreticulin Source RGD Symbol Acc 620288                                                      |
| B05      | UPFR1081975 | ENSRNOT00000026633.7 | Cd9      | ENSRNOG0000019556 | CD9 molecule Source RGD Symbol Acc 2318                                                        |
| B06      | UPFR1078307 | ENSRNOT00000085043.1 | Cfr      | ENSRNOG0000055103 | cystic fibrosis transmembrane conductance regulator Source RGD Symbol Acc 2332                 |
| B07      | UPFR1023967 | ENSRNOT00000059127.3 | Cryab    | ENSRNOG0000010524 | crystallin, alpha B Source RGD Symbol Acc 2414                                                 |
| B08      | UPFR1047569 | ENSRNOT00000089196.1 | Ccn2     | ENSRNOG0000015036 | cellular communication network factor 2 Source RGD Symbol Acc 621392                           |
| B09      | UPFR1119718 | ENSRNOT00000008941.5 | Ddit3    | ENSRNOG0000006789 | DNA-damage inducible transcript 3 Source RGD Symbol Acc 62391                                  |
| B10      | UPFR1053812 | ENSRNOT00000005383.5 | Dusp1    | ENSRNOG0000003977 | dual specificity phosphatase 1 Source RGD Symbol Acc 620897                                    |
| B11      | UPFR1035851 | ENSRNOT00000019361.2 | Edn1     | ENSRNOG0000014361 | endothelin 1 Source RGD Symbol Acc 2532                                                        |
| B12      | UPFR1091984 | ENSRNOT00000006087.2 | Egfr     | ENSRNOG0000004332 | epidermal growth factor receptor Source RGD Symbol Acc 2543                                    |
| C01      | UPFR1034050 | ENSRNOT00000026303.4 | Egr1     | ENSRNOG0000019422 | early growth response 1 Source RGD Symbol Acc 2544                                             |
| C02      | UPFR1017383 | ENSRNOT00000024067.5 | Egr3     | ENSRNOG0000017828 | early growth response 3 Source RGD Symbol Acc 2545                                             |
| C03      | UPFR1045359 | ENSRNOT00000010712.3 | Fos      | ENSRNOG0000008015 | Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626               |
| C04      | UPFR1092990 | ENSRNOT00000007698.6 | Gadd45a  | ENSRNOG0000005615 | growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654                       |
| C05      | UPFR1054309 | ENSRNOT00000026871.4 | Gadd45b  | ENSRNOG0000019822 | growth arrest and DNA-damage-inducible, beta Source RGD Symbol Acc 1309080                     |
| C06      | UPFR1119739 | ENSRNOT00000018252.7 | Gadd45g  | ENSRNOG0000013090 | growth arrest and DNA-damage-inducible, gamma Source RGD Symbol Acc 1311796                    |
| C07      | UPFR1118576 | ENSRNOT00000011867.4 | Guca2a   | ENSRNOG0000008849 | guanylate cyclase activator 2A Source RGD Symbol Acc 2766                                      |
| C08      | UPFR1040868 | ENSRNOT00000019192.6 | Hmox1    | ENSRNOG0000014117 | heme oxygenase 1 Source RGD Symbol Acc 2806                                                    |
| C09      | UPFR1014170 | ENSRNOT00000086310.1 | Hsp90aa1 | ENSRNOG0000059714 | heat shock protein 90 alpha family class A member 1 Source RGD Symbol Acc 631409               |
| C10      | UPFR1057108 | ENSRNOT00000081924.1 | Hspa1a   | ENSRNOG0000050647 | heat shock protein family A (Hsp70) member 1B Source RGD Symbol Acc 2840                       |
|          |             | ENSRNOT000000        |          | ENSRNOG00         |                                                                                                |

| Position | Assay       | Name                 | Symbol       | Ensembl ID        | Description                                                                                |
|----------|-------------|----------------------|--------------|-------------------|--------------------------------------------------------------------------------------------|
| C11      | UPFR1042317 | 023628.3             | Hspa4        | 000016596         | heat shock protein family A member 4 Source RGD Symbol Acc 628878                          |
| C12      | UPFR1106328 | ENSRNOT00000015474.6 | Hspa4l       | ENSRNOG0000010819 | heat shock protein family A (Hsp70) member 4 like Source RGD Symbol Acc 1306528            |
| D01      | UPFR1074347 | ENSRNOT00000025067.6 | Hspa5        | ENSRNOG0000018294 | heat shock protein family A member 5 Source RGD Symbol Acc 2843                            |
| D02      | UPFR1030516 | ENSRNOT00000031555.5 | Hspb1        | ENSRNOG0000023546 | heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306                   |
| D03      | UPFR1121351 | ENSRNOT00000006308.4 | Il1b         | ENSRNOG0000004649 | interleukin 1 beta Source RGD Symbol Acc 2891                                              |
| D04      | UPFR1114751 | ENSRNOT00000027656.3 | Ins2         | ENSRNOG0000020405 | insulin 2 Source RGD Symbol Acc 2916                                                       |
| D05      | UPFR1091655 | ENSRNOT00000014785.5 | Itgb1        | ENSRNOG0000010966 | integrin subunit beta 1 Source RGD Symbol Acc 2927                                         |
| D06      | UPFR1037970 | ENSRNOT00000011731.3 | Jun          | ENSRNOG0000026293 | Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943           |
| D07      | UPFR1107040 | ENSRNOT00000081525.1 | Kcnj1        | ENSRNOG0000059005 | potassium voltage-gated channel subfamily J member 1 Source RGD Symbol Acc 2957            |
| D08      | UPFR1029205 | ENSRNOT00000018776.5 | Lcn2         | ENSRNOG0000013973 | lipocalin 2 Source RGD Symbol Acc 69408                                                    |
| D09      | UPFR1050435 | ENSRNOT00000089411.1 | LOC103694381 | ENSRNOG0000058566 | lymphotoxin-beta Source RGD Symbol Acc 9083628                                             |
| D10      | UPFR1041466 | ENSRNOT00000027272.5 | Map2k2       | ENSRNOG0000020005 | mitogen activated protein kinase kinase 2 Source RGD Symbol Acc 61888                      |
| D11      | UPFR1044671 | ENSRNOT00000017968.3 | Map3k1       | ENSRNOG0000013177 | mitogen-activated protein kinase kinase kinase 1 Source RGD Symbol Acc 620966              |
| D12      | UPFR1055882 | ENSRNOT00000002533.7 | Mapk1        | ENSRNOG0000001849 | mitogen activated protein kinase 1 Source RGD Symbol Acc 70500                             |
| E01      | UPFR1048766 | ENSRNOT00000065216.3 | Mapk8        | ENSRNOG0000020155 | mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506                            |
| E02      | UPFR1060199 | ENSRNOT00000055879.3 | Mlc1         | ENSRNOG0000032871 | megalencephalic leukoencephalopathy with subcortical cysts 1 Source RGD Symbol Acc 1308552 |
| E03      | UPFR1019376 | ENSRNOT00000017005.5 | Nfat5        | ENSRNOG0000011879 | nuclear factor of activated T-cells 5 Source RGD Symbol Acc 1309142                        |
| E04      | UPFR1024664 | ENSRNOT00000009894.6 | Nfkbia       | ENSRNOG0000007390 | NFKB inhibitor alpha Source RGD Symbol Acc 3171                                            |
| E05      | UPFR1032783 | ENSRNOT00000013058.4 | Nos3         | ENSRNOG0000009348 | nitric oxide synthase 3 Source RGD Symbol Acc 3186                                         |
| E06      | UPFR1108667 | ENSRNOT00000020307.3 | Npr1         | ENSRNOG0000014684 | natriuretic peptide receptor 1 Source RGD Symbol Acc 3195                                  |
| E07      | UPFR1021756 | ENSRNOT00000079185.1 | Odc1         | ENSRNOG0000005424 | ornithine decarboxylase 1 Source RGD Symbol Acc 3227                                       |
| E08      | UPFR1052333 | ENSRNOT00000028829.5 | Oxt          | ENSRNOG0000021225 | oxytocin/neurophysin 1 prepropeptide Source RGD Symbol Acc 3238                            |
| E09      | UPFR1033705 | ENSRNOT00000071060.2 | LOC100910732 | ENSRNOG0000048597 | p21 (RAC1) activated kinase 2 Source RGD Symbol Acc 61953                                  |
| E10      | UPFR1105012 | ENSRNOT00000050076.4 | Pax2         | ENSRNOG0000014253 | paired box 2 Source RGD Symbol Acc 1305568                                                 |
| E11      | UPFR1076561 | ENSRNOT00000025260.7 | Pck2         | ENSRNOG0000018536 | phosphoenolpyruvate carboxykinase 2 (mitochondrial) Source MGI Symbol Acc MGI 1860456      |
| E12      | UPFR1037709 | ENSRNOT00000008728.5 | Pdia4        | ENSRNOG0000006228 | protein disulfide isomerase family A, member 4 Source RGD Symbol Acc 619835                |
| F01      | UPFR1085291 | ENSRNOT00000025763.6 | Plat         | ENSRNOG0000019018 | plasminogen activator, tissue type Source RGD Symbol Acc 3342                              |
| F02      | UPFR1115915 | ENSRNOT00000011219.6 | Ptk2         | ENSRNOG0000007916 | protein tyrosine kinase 2 Source RGD Symbol Acc 3443                                       |
| F03      | UPFR1096627 | ENSRNOT00000030007.3 | Ptk2b        | ENSRNOG0000027839 | protein tyrosine kinase 2 beta Source RGD Symbol Acc 628758                                |
| F04      | UPFR1039504 | ENSRNOT00000061157.3 | Sgk1         | ENSRNOG0000011815 | serum/glucocorticoid regulated kinase 1 Source RGD Symbol Acc 3668                         |
| F05      | UPFR1068891 | ENSRNOT00000021921.4 | Slc12a2      | ENSRNOG0000015971 | solute carrier family 12 member 2 Source RGD Symbol Acc 620809                             |
| F06      | UPFR1051651 | ENSRNOT00000078519.1 | Slc14a2      | ENSRNOG0000056021 | solute carrier family 14 member 2 Source RGD Symbol Acc 3689                               |
| F07      | UPFR1052096 | ENSRNOT00000083700.1 | Slc2a1       | ENSRNOG0000007284 | solute carrier family 2 member 1 Source RGD Symbol Acc 3704                                |
| F08      | UPFR1106183 | ENSRNOT00000039002.3 | Slc38a2      | ENSRNOG0000006305 | solute carrier family 38, member 2 Source RGD Symbol Acc 69420                             |
| F09      | UPFR1040727 | ENSRNOT00000011049.4 | Slc9a1       | ENSRNOG0000007982 | solute carrier family 9 member A1 Source RGD Symbol Acc 3718                               |
| F10      | UPFR1069434 | ENSRNOT00000089482.1 | Slc6a12      | ENSRNOG0000013547 | solute carrier family 6 member 12 Source RGD Symbol Acc 620255                             |

| Position | Assay       | Name                 | Symbol       | Ensembl ID        | Description                                                                                    |
|----------|-------------|----------------------|--------------|-------------------|------------------------------------------------------------------------------------------------|
| F11      | UPFR1013112 | ENSRNOT00000086982.1 | Slc6a6       | ENSRNOG0000009019 | solute carrier family 6 member 6 Source RGD Symbol Acc 61912                                   |
| F12      | UPFR1118737 | ENSRNOT00000021270.6 | Slc9a2       | ENSRNOG0000015567 | solute carrier family 9 member A2 Source RGD Symbol Acc 3719                                   |
| G01      | UPFR1051137 | ENSRNOT00000020711.3 | Slc9a3       | ENSRNOG0000015159 | solute carrier family 9 member A3 Source RGD Symbol Acc 3720                                   |
| G02      | UPFR1119713 | ENSRNOT00000077581.1 | Snai1        | ENSRNOG0000009594 | snail family transcriptional repressor 1 Source RGD Symbol Acc 620758                          |
| G03      | UPFR1050158 | ENSRNOT00000012739.4 | Src          | ENSRNOG0000009495 | SRC proto-oncogene, non-receptor tyrosine kinase Source RGD Symbol Acc 620795                  |
| G04      | UPFR1121532 | ENSRNOT00000022721.4 | Tat          | ENSRNOG0000016348 | tyrosine aminotransferase Source RGD Symbol Acc 3820                                           |
| G05      | UPFR1060818 | ENSRNOT00000057441.4 | Tgfa         | ENSRNOG0000016182 | transforming growth factor alpha Source RGD Symbol Acc 3849                                    |
| G06      | UPFR1098022 | ENSRNOT00000079677.1 | LOC103694380 | ENSRNOG0000055156 | tumor necrosis factor-like Source RGD Symbol Acc 9404643                                       |
| G07      | UPFR1095007 | ENSRNOT00000085115.1 | Tp53         | ENSRNOG0000010756 | tumor protein p53 Source RGD Symbol Acc 3889                                                   |
| G08      | UPFR1051763 | ENSRNOT00000021073.5 | Tpm4         | ENSRNOG0000015496 | tropomyosin 4 Source RGD Symbol Acc 3899                                                       |
| G09      | UPFR1047458 | ENSRNOT00000001586.2 | Trpv4        | ENSRNOG0000001195 | transient receptor potential cation channel, subfamily V, member 4 Source RGD Symbol Acc 69337 |
| G10      | UPFR1117908 | ENSRNOT00000026559.5 | Vegfa        | ENSRNOG0000019598 | vascular endothelial growth factor A Source RGD Symbol Acc 619991                              |
| G11      | UPFR1091277 | ENSRNOT00000024430.5 | Vim          | ENSRNOG0000018087 | vimentin Source RGD Symbol Acc 621646                                                          |
| G12      | UPFR1117212 | ENSRNOT00000083677.1 | Zfp361l      | ENSRNOG0000058646 | zinc finger protein 36, C3H type-like 1 Source RGD Symbol Acc 62009                            |
| 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.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.