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

## Mouse Hypertension

### Cat. no. 249955 UPMM-037ZA

### 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** for further details.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Ace | Ace2 | Acta2 | Adm | Adra1b | Adra1d | Adrb1 | Agt | Agtr1a | Agtr1b | Agtr2 | Alox5 |
| B | Arg2 | Atp2c1 | Atp6ap2 | Avp | Avpr1a | Avpr1b | Bdkrb1 | Bdkrb2 | Bmpr2 | Cacna1c | Calca | Cav1 |
| C | Chrna1 | Chrnb1 | Clic1 | Clic4 | Clic5 | Cnga1 | Cnga2 | Cnga3 | Cnga4 | Cngb1 | Cngb3 | Cps1 |
| D | Drd3 | Drd5 | Ece1 | Edn1 | Edn2 | Ednra | Ednrb | Ephx2 | Gch1 | Gchfr | Gucy1a1 | Gucy1b1 |
| E | Hif1a | Itpr1 | Itpr2 | Kcnj8 | Kcnma1 | Kng1 | Mylk | Mylk2 | Nos3 | Nosip | Nostrin | Nppb |
| F | Nppc | Npr1 | Npy1r | P2rx4 | Pde3a | Pde3b | Pde5a | Plcg1 | Plcg2 | Prkg1 | Prkg2 | Ptgir |
| G | Ptgs1 | Ptgs2 | Ren1 | S1pr1 | Scnn1a | Scnn1b | Scnn1g | Slc7a1 | Sphk1 | Sphk2 | Uts2 | Uts2r |
| H | Actb | B2m | Gapdh | Gusb | Hsp90ab1 | MGDC | QIC | QIC | QIC | PPC | PPC | PPC |

# Gene table: QuantiNova LNA Probe PCR Focus Panel

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|---|---|---|---|---|---|
| A01 | UPFM0929376 | ENSMUST00000151657.1 | Ace | ENSMUSG00000020681 | angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 Source MGI Symbol Acc MGI 87874 |
| A02 | UPFM0868172 | ENSMUST00000112271.9 | Ace2 | ENSMUSG00000015405 | angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 Source MGI Symbol Acc MGI 1917258 |
| A03 | UPFM0651942 | ENSMUST00000039631.9 | Acta2 | ENSMUSG00000035783 | actin, alpha 2, smooth muscle, aorta Source MGI Symbol Acc MGI 87909 |
| A04 | UPFM0999954 | ENSMUST00000033054.9 | Adm | ENSMUSG00000030790 | adrenomedullin Source MGI Symbol Acc MGI 108058 |
| A05 | UPFM0693359 | ENSMUST00000139906.1 | Adra1b | ENSMUSG00000050541 | adrenergic receptor, alpha 1b Source MGI Symbol Acc MGI 104774 |
| A06 | UPFM0670178 | ENSMUST00000103184.3 | Adra1d | ENSMUSG00000027335 | adrenergic receptor, alpha 1d Source MGI Symbol Acc MGI 106673 |
| A07 | UPFM0720171 | ENSMUST00000038949.5 | Adrb1 | ENSMUSG00000035283 | adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937 |
| A08 | UPFM0884197 | ENSMUST00000063278.6 | Agt | ENSMUSG00000031980 | angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963 |
| A09 | UPFM0722108 | ENSMUST00000222370.1 | Agtr1a | ENSMUSG00000049115 | angiotensin II receptor, type 1a Source MGI Symbol Acc MGI 87964 |
| A10 | UPFM0748288 | ENSMUST00000068316.7 | Agtr1b | ENSMUSG00000054988 | angiotensin II receptor, type 1b Source MGI Symbol Acc MGI 87965 |
| A11 | UPFM1000516 | ENSMUST00000131150.1 | Agtr2 | ENSMUSG00000068122 | angiotensin II receptor, type 2 Source MGI Symbol Acc MGI 87966 |
| A12 | UPFM0677095 | ENSMUST00000164547.7 | Alox5 | ENSMUSG00000025701 | arachidonate 5-lipoxygenase Source MGI Symbol Acc MGI 87999 |
| B01 | UPFM0700491 | ENSMUST00000021550.6 | Arg2 | ENSMUSG00000021125 | arginase type II Source MGI Symbol Acc MGI 1330806 |
| B02 | UPFM0637359 | ENSMUST00000177189.7 | Atp2c1 | ENSMUSG00000032570 | ATPase, Ca++-sequestering Source MGI Symbol Acc MGI 1889008 |
| B03 | UPFM0663273 | ENSMUST00000137277.1 | Atp6ap2 | ENSMUSG00000031007 | ATPase, H+ transporting, lysosomal accessory protein 2 Source MGI Symbol Acc MGI 1917745 |
| B04 | UPFM0749161 | ENSMUST00000046001.6 | Avp | ENSMUSG00000037727 | arginine vasopressin Source MGI Symbol Acc MGI 88121 |
| B05 | UPFM0949666 | ENSMUST00000020323.6 | Avpr1a | ENSMUSG00000020123 | arginine vasopressin receptor 1A Source MGI Symbol Acc MGI 1859216 |
| B06 | UPFM0641216 | ENSMUST00000190410.1 | Avpr1b | ENSMUSG00000026432 | arginine vasopressin receptor 1B Source MGI Symbol Acc MGI 1347010 |
| B07 | UPFM0723230 | ENSMUST00000182899.1 | Bdkrb1 | ENSMUSG00000041347 | bradykinin receptor, beta 1 Source MGI Symbol Acc MGI 88144 |
| B08 | UPFM0969732 | ENSMUST00000001652.6 | Bdkrb2 | ENSMUSG00000021070 | bradykinin receptor, beta 2 Source MGI Symbol Acc MGI 102845 |
| B09 | UPFM0804257 | ENSMUST00000190659.1 | Bmpr2 | ENSMUSG00000067336 | bone morphogenetic protein receptor, type II (serine/threonine kinase) Source MGI Symbol Acc MGI 1095407 |
| B10 | UPFM0668448 | ENSMUST00000112790.8 | Cacna1c | ENSMUSG00000051331 | calcium channel, voltage-dependent, L type, alpha 1C subunit Source MGI Symbol Acc MGI 103013 |
| B11 | UPFM0696039 | ENSMUST00000032906.10 | Calca | ENSMUSG00000030669 | calcitonin/calcitonin-related polypeptide, alpha Source MGI Symbol Acc MGI 2151253 |
| B12 | UPFM0940428 | ENSMUST00000150901.1 | Cav1 | ENSMUSG00000007655 | caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709 |
| C01 | UPFM0979771 | ENSMUST00000028515.3 | Chrna1 | ENSMUSG00000027107 | cholinergic receptor, nicotinic, alpha polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87885 |
| C02 | UPFM0621865 | ENSMUST00000045971.8 | Chrnb1 | ENSMUSG00000041189 | cholinergic receptor, nicotinic, beta polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87890 |
| C03 | UPFM0895189 | ENSMUST00000172599.1 | Clic1 | ENSMUSG00000007041 | chloride intracellular channel 1 Source MGI Symbol Acc MGI 2148924 |
| C04 | UPFM0827852 | ENSMUST00000037099.8 | Clic4 | ENSMUSG00000037242 | chloride intracellular channel 4 (mitochondrial) Source MGI Symbol Acc MGI 1352754 |
| C05 | UPFM0930053 | ENSMUST00000024755.6 | Clic5 | ENSMUSG00000023959 | chloride intracellular channel 5 Source MGI Symbol Acc MGI 1917912 |
| C06 | UPFM0674268 | ENSMUST00000169997.5 | Cnga1 | ENSMUSG00000067220 | cyclic nucleotide gated channel alpha 1 Source MGI Symbol Acc MGI 88436 |
| C07 | UPFM0687673 | ENSMUST00000006020.7 | Cnga2 | ENSMUSG00000005864 | cyclic nucleotide gated channel alpha 2 Source MGI Symbol Acc MGI 108040 |
| C08 | UPFM0642906 | ENSMUST00000194195.5 | Cnga3 | ENSMUSG00000026114 | cyclic nucleotide gated channel alpha 3 Source MGI Symbol Acc MGI 1341818 |
| C09 | UPFM0731280 | ENSMUST00000033187.5 | Cnga4 | ENSMUSG00000030897 | cyclic nucleotide gated channel alpha 4 Source MGI Symbol Acc MGI 2664099 |
| C10 | UPFM0801615 | ENSMUST00000121162.2 | Cngb1 | ENSMUSG00000031789 | cyclic nucleotide gated channel beta 1 Source MGI Symbol Acc MGI 2664102 |
| | UPFM087118 | ENSMUST00000 | | ENSMUSG00 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|---|---|---|---|---|---|
| C11 | 1 | 102999.1 | Cngb3 | 000056494 | cyclic nucleotide gated channel beta 3 Source MGI Symbol Acc MGI 1353562 |
| C12 | UPFM0986322 | ENSMUST00000027144.7 | Cps1 | ENSMUSG00000025991 | carbamoyl-phosphate synthetase 1 Source MGI Symbol Acc MGI 891996 |
| D01 | UPFM0960576 | ENSMUST00000023390.4 | Drd3 | ENSMUSG00000022705 | dopamine receptor D3 Source MGI Symbol Acc MGI 94925 |
| D02 | UPFM0929932 | ENSMUST00000041646.3 | Drd5 | ENSMUSG00000039358 | dopamine receptor D5 Source MGI Symbol Acc MGI 94927 |
| D03 | UPFM0811562 | ENSMUST00000102518.9 | Ece1 | ENSMUSG00000057530 | endothelin converting enzyme 1 Source MGI Symbol Acc MGI 1101357 |
| D04 | UPFM0632344 | ENSMUST00000021796.8 | Edn1 | ENSMUSG00000021367 | endothelin 1 Source MGI Symbol Acc MGI 95283 |
| D05 | UPFM0789251 | ENSMUST00000030384.4 | Edn2 | ENSMUSG00000028635 | endothelin 2 Source MGI Symbol Acc MGI 95284 |
| D06 | UPFM0666507 | ENSMUST00000146561.1 | Ednra | ENSMUSG00000031616 | endothelin receptor type A Source MGI Symbol Acc MGI 105923 |
| D07 | UPFM0768052 | ENSMUST00000227824.1 | Ednrb | ENSMUSG00000022122 | endothelin receptor type B Source MGI Symbol Acc MGI 102720 |
| D08 | UPFM0619291 | ENSMUST00000225309.1 | Ephx2 | ENSMUSG00000022040 | epoxide hydrolase 2, cytoplasmic Source MGI Symbol Acc MGI 99500 |
| D09 | UPFM0983447 | ENSMUST00000089959.6 | Gch1 | ENSMUSG00000037580 | GTP cyclohydrolase 1 Source MGI Symbol Acc MGI 95675 |
| D10 | UPFM0766462 | ENSMUST00000057454.3 | Gchfr | ENSMUSG00000046814 | GTP cyclohydrolase I feedback regulator Source MGI Symbol Acc MGI 2443977 |
| D11 | UPFM0660167 | ENSMUST00000191942.1 | Gucy1a1 | ENSMUSG00000033910 | guanylate cyclase 1, soluble, alpha 1 Source MGI Symbol Acc MGI 1926562 |
| D12 | UPFM0796232 | ENSMUST00000029635.13 | Gucy1b1 | ENSMUSG00000028005 | guanylate cyclase 1, soluble, beta 1 Source MGI Symbol Acc MGI 1860604 |
| E01 | UPFM0902406 | ENSMUST00000110461.7 | Hif1a | ENSMUSG00000021109 | hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918 |
| E02 | UPFM0984215 | ENSMUST00000203995.1 | Itpr1 | ENSMUSG00000030102 | inositol 1,4,5-trisphosphate receptor 1 Source MGI Symbol Acc MGI 96623 |
| E03 | UPFM0950409 | ENSMUST00000139732.3 | Itpr2 | ENSMUSG00000030287 | inositol 1,4,5-triphosphate receptor 2 Source MGI Symbol Acc MGI 99418 |
| E04 | UPFM0681693 | ENSMUST00000203945.2 | Kcnj8 | ENSMUSG00000030247 | potassium inwardly-rectifying channel, subfamily J, member 8 Source MGI Symbol Acc MGI 1100508 |
| E05 | UPFM0823311 | ENSMUST00000225305.1 | Kcnma1 | ENSMUSG00000063142 | potassium large conductance calcium-activated channel, subfamily M, alpha member 1 Source MGI Symbol Acc MGI 99923 |
| E06 | UPFM0642643 | ENSMUST00000125790.7 | Kng1 | ENSMUSG00000022875 | kininogen 1 Source MGI Symbol Acc MGI 1097705 |
| E07 | UPFM0751414 | ENSMUST00000231589.1 | Mylk | ENSMUSG00000022836 | myosin, light polypeptide kinase Source MGI Symbol Acc MGI 894806 |
| E08 | UPFM1002410 | ENSMUST00000028970.7 | Mylk2 | ENSMUSG00000027470 | myosin, light polypeptide kinase 2, skeletal muscle Source MGI Symbol Acc MGI 2139434 |
| E09 | UPFM0673581 | ENSMUST00000115090.5 | Nos3 | ENSMUSG00000028978 | nitric oxide synthase 3, endothelial cell Source MGI Symbol Acc MGI 97362 |
| E10 | UPFM0755160 | ENSMUST00000107829.8 | Nosip | ENSMUSG00000003421 | nitric oxide synthase interacting protein Source MGI Symbol Acc MGI 1913644 |
| E11 | UPFM0794655 | ENSMUST00000141276.1 | Nostrin | ENSMUSG00000034738 | nitric oxide synthase trafficker Source MGI Symbol Acc MGI 3606242 |
| E12 | UPFM0798466 | ENSMUST00000103231.4 | Nppb | ENSMUSG00000029019 | natriuretic peptide type B Source MGI Symbol Acc MGI 97368 |
| F01 | UPFM0833575 | ENSMUST00000027449.5 | Nppc | ENSMUSG00000026241 | natriuretic peptide type C Source MGI Symbol Acc MGI 97369 |
| F02 | UPFM0990098 | ENSMUST00000029540.12 | Npr1 | ENSMUSG00000027931 | natriuretic peptide receptor 1 Source MGI Symbol Acc MGI 97371 |
| F03 | UPFM0898596 | ENSMUST00000039303.6 | Npy1r | ENSMUSG00000036437 | neuropeptide Y receptor Y1 Source MGI Symbol Acc MGI 104963 |
| F04 | UPFM0826500 | ENSMUST00000139631.7 | P2rx4 | ENSMUSG00000029470 | purinergic receptor P2X, ligand-gated ion channel 4 Source MGI Symbol Acc MGI 1338859 |
| F05 | UPFM0725445 | ENSMUST00000189060.2 | Pde3a | ENSMUSG00000041741 | phosphodiesterase 3A, cGMP inhibited Source MGI Symbol Acc MGI 1860764 |
| F06 | UPFM0851780 | ENSMUST00000032909.8 | Pde3b | ENSMUSG00000030671 | phosphodiesterase 3B, cGMP-inhibited Source MGI Symbol Acc MGI 1333863 |
| F07 | UPFM0661964 | ENSMUST00000200389.1 | Pde5a | ENSMUSG00000053965 | phosphodiesterase 5A, cGMP-specific Source MGI Symbol Acc MGI 2651499 |
| F08 | UPFM0972762 | ENSMUST00000109462.7 | Plcg1 | ENSMUSG00000016933 | phospholipase C, gamma 1 Source MGI Symbol Acc MGI 97615 |
| F09 | UPFM0911720 | ENSMUST00000081232.8 | Plcg2 | ENSMUSG00000034330 | phospholipase C, gamma 2 Source MGI Symbol Acc MGI 97616 |
| F10 | UPFM0969766 | ENSMUST00000065067.13 | Prkg1 | ENSMUSG00000052920 | protein kinase, cGMP-dependent, type I Source MGI Symbol Acc MGI 108174 |
| | | | | | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|---|---|---|---|---|---|
| F11 | UPFM0891556 | ENSMUST00000162147.5 | Prkg2 | ENSMUSG00000029334 | protein kinase, cGMP-dependent, type II Source MGI Symbol Acc MGI 108173 |
| F12 | UPFM0869548 | ENSMUST00000086101.5 | Ptgir | ENSMUSG00000043017 | prostaglandin I receptor (IP) Source MGI Symbol Acc MGI 99535 |
| G01 | UPFM0621849 | ENSMUST00000149930.2 | Ptgs1 | ENSMUSG00000047250 | prostaglandin-endoperoxide synthase 1 Source MGI Symbol Acc MGI 97797 |
| G02 | UPFM1004492 | ENSMUST00000190784.1 | Ptgs2 | ENSMUSG00000032487 | prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798 |
| G03 | UPFM0880614 | ENSMUST00000094556.2 | Ren1 | ENSMUSG00000070645 | renin 1 structural Source MGI Symbol Acc MGI 97898 |
| G04 | UPFM0857718 | ENSMUST00000055676.3 | S1pr1 | ENSMUSG00000045092 | sphingosine-1-phosphate receptor 1 Source MGI Symbol Acc MGI 1096355 |
| G05 | UPFM0634068 | ENSMUST00000177329.1 | Scnn1a | ENSMUSG00000030340 | sodium channel, nonvoltage-gated 1 alpha Source MGI Symbol Acc MGI 101782 |
| G06 | UPFM0890630 | ENSMUST00000205520.1 | Scnn1b | ENSMUSG00000030873 | sodium channel, nonvoltage-gated 1 beta Source MGI Symbol Acc MGI 104696 |
| G07 | UPFM0662268 | ENSMUST00000000221.5 | Scnn1g | ENSMUSG00000000216 | sodium channel, nonvoltage-gated 1 gamma Source MGI Symbol Acc MGI 104695 |
| G08 | UPFM0908686 | ENSMUST00000138257.7 | Slc7a1 | ENSMUSG00000041313 | solute carrier family 7 (cationic amino acid transporter, y+ system), member 1 Source MGI Symbol Acc MGI 88117 |
| G09 | UPFM0776793 | ENSMUST00000063446.12 | Sphk1 | ENSMUSG00000061878 | sphingosine kinase 1 Source MGI Symbol Acc MGI 1316649 |
| G10 | UPFM0814286 | ENSMUST00000211340.1 | Sphk2 | ENSMUSG00000057342 | sphingosine kinase 2 Source MGI Symbol Acc MGI 1861380 |
| G11 | UPFM1009532 | ENSMUST00000030803.1 | Uts2 | ENSMUSG00000028963 | urotensin 2 Source MGI Symbol Acc MGI 1346329 |
| G12 | UPFM0830862 | ENSMUST00000039044.1 | Uts2r | ENSMUSG00000039321 | urotensin 2 receptor Source MGI Symbol Acc MGI 2183450 |
| H01 | UPFM1132946 | ENSMUST00000163829.1 | Actb | ENSMUSG00000029580 | actin, beta Source MGI Symbol Acc MGI 87904 |
| H02 | UPFM1132947 | ENSMUST00000102476.4 | B2m | ENSMUSG00000060802 | beta-2 microglobulin Source MGI Symbol Acc MGI 88127 |
| H03 | UPFM1132948 | ENSMUST00000117757.8 | Gapdh | ENSMUSG00000057666 | glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640 |
| H04 | UPFM1132949 | ENSMUST00000026613.13 | Gusb | ENSMUSG00000025534 | glucuronidase, beta Source MGI Symbol Acc MGI 95872 |
| H05 | UPFM1132950 | ENSMUST00000166469.7 | Hsp90ab1 | ENSMUSG00000023944 | heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247 |
| H06 | UPFM1126609 | UPL_MGDC | MGDC | UPL_MGDC | Mouse 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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water | 205410 |
| QuantiNova Probe RT-PCR Kit (100)* | For 100 x 20 µl reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 µl QuantiNova Probe RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water | 208352 |
| QuantiNova Probe PCR Kit (100)* | For 100 x 20 µl reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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 or can be requested from QIAGEN Technical Services or your local distributor.