

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

Human Angiogenesis

Cat. no. 249955 UPHS-024ZA

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 | AKT1 | ANG | ANGPT1 | ANGPT2 | ANGPTL4 | ANPEP | ADGRB1 | CCL11 | CCL2 | CDH5 | COL18A1 | COL4A3 |
| B | CCN2 | CXCL1 | CXCL10 | CXCL5 | CXCL6 | CXCL9 | EDN1 | EFNA1 | EFNB2 | EGF | ENG | EPHB4 |
| C | ERBB2 | F3 | FGF1 | FGF2 | FGFR3 | VEGFD | FLT1 | FN1 | HGF | HIF1A | HPSE | ID1 |
| D | IFNA1 | IFNG | IGF1 | IL1B | IL6 | CXCL8 | ITGAV | ITGB3 | JAG1 | KDR | CNMD | LEP |
| E | MDK | MMP14 | MMP2 | MMP9 | NOS3 | NOTCH4 | NRP1 | NRP2 | PDGFA | PECAM1 | PF4 | PGF |
| F | PLAU | PLG | PROK2 | PTGS1 | S1PR1 | SERPINE1 | SERPINF1 | SPHK1 | TEK | TGFA | TGFB1 | TGFB2 |
| G | TGFBR1 | THBS1 | THBS2 | TIE1 | TIMP1 | TIMP2 | TIMP3 | TNF | TYMP | VEGFA | VEGFB | VEGFC |
| 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 | UPFH0453992 | ENST00000555528.5 | AKT1 | ENSG00000142208 | AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391 |
| A02 | UPFH0091321 | ENST00000336811.10 | ANG | ENSG00000214274 | angiogenin Source HGNC Symbol Acc HGNC 483 |
| A03 | UPFH1132231 | ENST00000517746.6 | ANGPT1 | ENSG00000154188 | angiopoietin 1 Source HGNC Symbol Acc HGNC 484 |
| A04 | UPFH0272158 | ENST00000325203.9 | ANGPT2 | ENSG00000091879 | angiopoietin 2 Source HGNC Symbol Acc HGNC 485 |
| A05 | UPFH1132232 | ENST00000301455.7 | ANGPTL4 | ENSG00000167772 | angiopoietin like 4 Source HGNC Symbol Acc HGNC 16039 |
| A06 | UPFH1132234 | ENST00000300060.7 | ANPEP | ENSG00000166825 | alanyl aminopeptidase, membrane Source HGNC Symbol Acc HGNC 500 |
| A07 | UPFH0051538 | ENST00000323289.6 | ADGRB1 | ENSG00000181790 | adhesion G protein-coupled receptor B1 Source HGNC Symbol Acc HGNC 943 |
| A08 | UPFH0201571 | ENST00000305869.3 | CCL11 | ENSG00000172156 | C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610 |
| A09 | UPFH1132783 | ENST00000225831.4 | CCL2 | ENSG00000108691 | C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618 |
| A10 | UPFH1132306 | ENST00000563425.2 | CDH5 | ENSG00000179776 | cadherin 5 Source HGNC Symbol Acc HGNC 1764 |
| A11 | UPFH1132325 | ENST00000359759.8 | COL18A1 | ENSG00000182871 | collagen type XVIII alpha 1 chain Source HGNC Symbol Acc HGNC 2195 |
| A12 | UPFH0194470 | ENST00000487633.1 | COL4A3 | ENSG00000169031 | collagen type IV alpha 3 chain Source HGNC Symbol Acc HGNC 2204 |
| B01 | UPFH1132340 | ENST00000367976.4 | CCN2 | ENSG00000118523 | cellular communication network factor 2 Source HGNC Symbol Acc HGNC 2500 |
| B02 | UPFH0494346 | ENST00000395761.3 | CXCL1 | ENSG00000163739 | C-X-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 4602 |
| B03 | UPFH0196315 | ENST00000306602.3 | CXCL10 | ENSG00000169245 | C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637 |
| B04 | UPFH1132798 | ENST00000296027.5 | CXCL5 | ENSG00000163735 | C-X-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10642 |
| B05 | UPFH1132350 | ENST00000226317.10 | CXCL6 | ENSG00000124875 | C-X-C motif chemokine ligand 6 Source HGNC Symbol Acc HGNC 10643 |
| B06 | UPFH0222764 | ENST00000264888.5 | CXCL9 | ENSG00000138755 | C-X-C motif chemokine ligand 9 Source HGNC Symbol Acc HGNC 7098 |
| B07 | UPFH1132801 | ENST00000379375.6 | EDN1 | ENSG00000078401 | endothelin 1 Source HGNC Symbol Acc HGNC 3176 |
| B08 | UPFH0161033 | ENST00000368406.2 | EFNA1 | ENSG00000169242 | ephrin A1 Source HGNC Symbol Acc HGNC 3221 |
| B09 | UPFH0607546 | ENST00000245323.4 | EFNB2 | ENSG00000125266 | ephrin B2 Source HGNC Symbol Acc HGNC 3227 |
| B10 | UPFH1132380 | ENST00000503392.1 | EGF | ENSG00000138798 | epidermal growth factor Source HGNC Symbol Acc HGNC 3229 |
| B11 | UPFH0535657 | ENST00000344849.4 | ENG | ENSG00000106991 | endoglin Source HGNC Symbol Acc HGNC 3349 |
| B12 | UPFH1132386 | ENST00000360620.7 | EPHB4 | ENSG00000196411 | EPH receptor B4 Source HGNC Symbol Acc HGNC 3395 |
| C01 | UPFH1132388 | ENST00000541774.5 | ERBB2 | ENSG00000141736 | erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430 |
| C02 | UPFH1132393 | ENST00000334047.12 | F3 | ENSG00000117525 | coagulation factor III, tissue factor Source HGNC Symbol Acc HGNC 3541 |
| C03 | UPFH0087975 | ENST00000612258.4 | FGF1 | ENSG00000113578 | fibroblast growth factor 1 Source HGNC Symbol Acc HGNC 3665 |
| C04 | UPFH0613093 | ENST00000264498.7 | FGF2 | ENSG00000138685 | fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676 |
| C05 | UPFH0584716 | ENST00000440486.7 | FGFR3 | ENSG00000068078 | fibroblast growth factor receptor 3 Source HGNC Symbol Acc HGNC 3690 |
| C06 | UPFH1132399 | ENST00000297904.4 | VEGFD | ENSG00000165197 | vascular endothelial growth factor D Source HGNC Symbol Acc HGNC 3708 |
| C07 | UPFH1132400 | ENST00000541932.5 | FLT1 | ENSG00000102755 | fms related tyrosine kinase 1 Source HGNC Symbol Acc HGNC 3763 |
| C08 | UPFH0605066 | ENST00000336916.8 | FN1 | ENSG00000115414 | fibronectin 1 Source HGNC Symbol Acc HGNC 3778 |
| C09 | UPFH1132871 | ENST00000643024.1 | HGF | ENSG00000019991 | hepatocyte growth factor Source HGNC Symbol Acc HGNC 4893 |
| C10 | UPFH1132447 | ENST00000394997.5 | HIF1A | ENSG00000100644 | hypoxia inducible factor 1 subunit alpha Source HGNC Symbol Acc HGNC 4910 |
| | | ENST00000512 | | ENSG000000 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|-------------|--------------------|----------|-----------------|--|
| C11 | UPFH1132454 | 196.5 | HPSE | 173083 | heparanase Source HGNC Symbol Acc HGNC 5164 |
| C12 | UPFH1132463 | ENST00000376112.4 | ID1 | ENSG00000125968 | inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360 |
| D01 | UPFH0577805 | ENST00000276927.2 | IFNA1 | ENSG00000197919 | interferon alpha 1 Source HGNC Symbol Acc HGNC 5417 |
| D02 | UPFH1132473 | ENST00000229135.4 | IFNG | ENSG00000111537 | interferon gamma Source HGNC Symbol Acc HGNC 5438 |
| D03 | UPFH0229443 | ENST00000337514.10 | IGF1 | ENSG00000017427 | insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464 |
| D04 | UPFH0163764 | ENST00000263341.6 | IL1B | ENSG00000125538 | interleukin 1 beta Source HGNC Symbol Acc HGNC 5992 |
| D05 | UPFH1172910 | ENST00000258743.10 | IL6 | ENSG00000136244 | interleukin 6 Source HGNC Symbol Acc HGNC 6018 |
| D06 | UPFH0120553 | ENST00000307407.8 | CXCL8 | ENSG00000169429 | C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025 |
| D07 | UPFH1132816 | ENST00000261023.8 | ITGAV | ENSG00000138448 | integrin subunit alpha V Source HGNC Symbol Acc HGNC 6150 |
| D08 | UPFH1132500 | ENST00000559488.5 | ITGB3 | ENSG00000259207 | integrin subunit beta 3 Source HGNC Symbol Acc HGNC 6156 |
| D09 | UPFH0500277 | ENST00000254958.10 | JAG1 | ENSG00000101384 | jagged 1 Source HGNC Symbol Acc HGNC 6188 |
| D10 | UPFH0596732 | ENST00000263923.5 | KDR | ENSG00000128052 | kinase insert domain receptor Source HGNC Symbol Acc HGNC 6307 |
| D11 | UPFH1132912 | ENST00000377962.8 | CNMD | ENSG00000136110 | chondromodulin Source HGNC Symbol Acc HGNC 17005 |
| D12 | UPFH1132519 | ENST00000308868.5 | LEP | ENSG00000174697 | leptin Source HGNC Symbol Acc HGNC 6553 |
| E01 | UPFH0255721 | ENST00000395566.8 | MDK | ENSG00000110492 | midkine Source HGNC Symbol Acc HGNC 6972 |
| E02 | UPFH1132973 | ENST00000311852.11 | MMP14 | ENSG00000157227 | matrix metalloproteinase 14 Source HGNC Symbol Acc HGNC 7160 |
| E03 | UPFH1132551 | ENST00000437642.6 | MMP2 | ENSG00000087245 | matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166 |
| E04 | UPFH0367626 | ENST00000372330.3 | MMP9 | ENSG00000100985 | matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176 |
| E05 | UPFH1132897 | ENST00000297494.8 | NOS3 | ENSG00000164867 | nitric oxide synthase 3 Source HGNC Symbol Acc HGNC 7876 |
| E06 | UPFH1132594 | ENST00000375023.3 | NOTCH4 | ENSG00000204301 | notch 4 Source HGNC Symbol Acc HGNC 7884 |
| E07 | UPFH1132598 | ENST00000395995.5 | NRP1 | ENSG00000099250 | neuropilin 1 Source HGNC Symbol Acc HGNC 8004 |
| E08 | UPFH1132599 | ENST00000412873.2 | NRP2 | ENSG00000118257 | neuropilin 2 Source HGNC Symbol Acc HGNC 8005 |
| E09 | UPFH1132608 | ENST00000354513.9 | PDGFA | ENSG00000197461 | platelet derived growth factor subunit A Source HGNC Symbol Acc HGNC 8799 |
| E10 | UPFH1132613 | ENST00000563924.6 | PECAM1 | ENSG00000261371 | platelet and endothelial cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 8823 |
| E11 | UPFH0614943 | ENST00000296029.3 | PF4 | ENSG00000163737 | platelet factor 4 Source HGNC Symbol Acc HGNC 8861 |
| E12 | UPFH1132616 | ENST00000555567.6 | PGF | ENSG00000119630 | placental growth factor Source HGNC Symbol Acc HGNC 8893 |
| F01 | UPFH1132831 | ENST00000446342.5 | PLAU | ENSG00000122861 | plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052 |
| F02 | UPFH0091404 | ENST00000308192.13 | PLG | ENSG00000122194 | plasminogen Source HGNC Symbol Acc HGNC 9071 |
| F03 | UPFH0318194 | ENST00000353065.7 | PROK2 | ENSG00000163421 | prokineticin 2 Source HGNC Symbol Acc HGNC 18455 |
| F04 | UPFH0450481 | ENST00000619306.5 | PTGS1 | ENSG00000095303 | prostaglandin-endoperoxide synthase 1 Source HGNC Symbol Acc HGNC 9604 |
| F05 | UPFH0376099 | ENST00000305352.6 | S1PR1 | ENSG00000170989 | sphingosine-1-phosphate receptor 1 Source HGNC Symbol Acc HGNC 3165 |
| F06 | UPFH0384736 | ENST00000223095.4 | SERPINE1 | ENSG00000106366 | serpin family E member 1 Source HGNC Symbol Acc HGNC 8583 |
| F07 | UPFH1172913 | ENST00000254722.9 | SERPINF1 | ENSG00000132386 | serpin family F member 1 Source HGNC Symbol Acc HGNC 8824 |
| F08 | UPFH0560569 | ENST00000590959.5 | SPHK1 | ENSG00000176170 | sphingosine kinase 1 Source NCBI gene Acc 8877 |
| F09 | UPFH1132711 | ENST00000380036.9 | TEK | ENSG00000120156 | TEK receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11724 |
| F10 | UPFH1132717 | ENST00000295400.11 | TGFA | ENSG00000163235 | transforming growth factor alpha Source HGNC Symbol Acc HGNC 11765 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|-------------|--------------------|--------|-----------------|---|
| F11 | UPFH0193430 | ENST00000221930.5 | TGFB1 | ENSG00000105329 | transforming growth factor beta 1 Source NCBI gene Acc 7040 |
| F12 | UPFH1132846 | ENST00000366929.4 | TGFB2 | ENSG00000092969 | transforming growth factor beta 2 Source HGNC Symbol Acc HGNC 11768 |
| G01 | UPFH1132719 | ENST00000374990.6 | TGFBR1 | ENSG00000106799 | transforming growth factor beta receptor 1 Source HGNC Symbol Acc HGNC 11772 |
| G02 | UPFH1132847 | ENST00000260356.5 | THBS1 | ENSG00000137801 | thrombospondin 1 Source HGNC Symbol Acc HGNC 11785 |
| G03 | UPFH1125960 | ENST00000366787.7 | THBS2 | ENSG00000186340 | thrombospondin 2 Source HGNC Symbol Acc HGNC 11786 |
| G04 | UPFH0392212 | ENST00000538015.1 | TIE1 | ENSG00000066056 | tyrosine kinase with immunoglobulin like and EGF like domains 1 Source HGNC Symbol Acc HGNC 11809 |
| G05 | UPFH1132725 | ENST00000456754.6 | TIMP1 | ENSG00000102265 | TIMP metalloproteinase inhibitor 1 Source HGNC Symbol Acc HGNC 11820 |
| G06 | UPFH0276014 | ENST00000262768.11 | TIMP2 | ENSG00000035862 | TIMP metalloproteinase inhibitor 2 Source HGNC Symbol Acc HGNC 11821 |
| G07 | UPFH0118826 | ENST00000266085.6 | TIMP3 | ENSG00000100234 | TIMP metalloproteinase inhibitor 3 Source HGNC Symbol Acc HGNC 11822 |
| G08 | UPFH1132978 | ENST00000449264.3 | TNF | ENSG00000232810 | tumor necrosis factor Source HGNC Symbol Acc HGNC 11892 |
| G09 | UPFH1132746 | ENST00000252029.8 | TYMP | ENSG00000025708 | thymidine phosphorylase Source HGNC Symbol Acc HGNC 3148 |
| G10 | UPFH0281656 | ENST00000425836.6 | VEGFA | ENSG00000112715 | vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680 |
| G11 | UPFH0523097 | ENST00000309422.6 | VEGFB | ENSG00000173511 | vascular endothelial growth factor B Source HGNC Symbol Acc HGNC 12681 |
| G12 | UPFH1132755 | ENST00000618562.2 | VEGFC | ENSG00000150630 | vascular endothelial growth factor C Source HGNC Symbol Acc HGNC 12682 |
| 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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water | 205410 |
| QuantiNova Probe RT-PCR Kit (100)* | For 100 x 20 μ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 μ l QuantiNova Probe RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water | 208352 |
| QuantiNova Probe PCR Kit (100)* | For 100 x 20 μ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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.

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