

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

Human Breast Cancer

Cat. no. 249955 UPHS-131ZR

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 for further details.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---------|-------|--------|-------|--------|--------|-------|--------|--------|----------|--------|-------|
| A | ABCB1 | ABCG2 | ADAM23 | AKT1 | APC | AR | ATM | BAD | BCL2 | BIRC5 | BRCA1 | BRCA2 |
| B | CCNA1 | CCND1 | CCND2 | CCNE1 | CDH1 | CDH13 | CDK2 | CDKN1A | CDKN1C | CDKN2A | CSF1 | CST6 |
| C | CTNNB1 | CTSD | EGF | EGFR | ERBB2 | ESR1 | ESR2 | FOXA1 | GATA3 | GLI1 | GRB7 | GSTP1 |
| D | HIC1 | ID1 | IGF1 | IGF1R | IGFBP3 | IL6 | JUN | KRT18 | KRT19 | KRT5 | KRT8 | MAPK1 |
| E | MAPK3 | MAPK8 | MGMT | MKI67 | MLH1 | MMP2 | MMP9 | MUC1 | MYC | NME1 | NOTCH1 | NR3C1 |
| F | PGR | PLAU | PRDM2 | PTEN | PTGS2 | PYCARD | RARB | RASSF1 | RB1 | SERPINE1 | SFN | SFRP1 |
| G | SLC39A6 | SLIT2 | SNAI2 | SRC | TFF3 | TGFB1 | THBS1 | TP53 | TP73 | TWIST1 | VEGFA | XBP1 |
| 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 | UPFH0266833 | ENST00000483831.1 | ABCB1 | ENSG00000085563 | ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40 |
| A02 | UPFH0026485 | ENST00000650821.1 | ABCG2 | ENSG00000118777 | ATP binding cassette subfamily G member 2 (Junior blood group) Source HGNC Symbol Acc HGNC 74 |
| A03 | UPFH0549747 | ENST00000444281.1 | ADAM23 | ENSG00000114948 | ADAM metallopeptidase domain 23 Source HGNC Symbol Acc HGNC 202 |
| A04 | UPFH0453992 | ENST00000555528.5 | AKT1 | ENSG00000142208 | AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391 |
| A05 | UPFH1132236 | ENST00000257430.9 | APC | ENSG00000134982 | APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583 |
| A06 | UPFH0268128 | ENST00000374690.8 | AR | ENSG00000169083 | androgen receptor Source HGNC Symbol Acc HGNC 644 |
| A07 | UPFH1132252 | ENST00000527805.5 | ATM | ENSG00000149311 | ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795 |
| A08 | UPFH0437748 | ENST00000394532.7 | BAD | ENSG00000002330 | BCL2 associated agonist of cell death Source HGNC Symbol Acc HGNC 936 |
| A09 | UPFH1132900 | ENST00000333681.5 | BCL2 | ENSG00000171791 | BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990 |
| A10 | UPFH1132779 | ENST00000301633.8 | BIRC5 | ENSG00000089685 | baculoviral IAP repeat containing 5 Source HGNC Symbol Acc HGNC 593 |
| A11 | UPFH1132279 | ENST00000461574.1 | BRCA1 | ENSG00000012048 | BRCA1, DNA repair associated Source HGNC Symbol Acc HGNC 1100 |
| A12 | UPFH0304950 | ENST00000544455.5 | BRCA2 | ENSG00000139618 | BRCA2, DNA repair associated Source HGNC Symbol Acc HGNC 1101 |
| B01 | UPFH0417476 | ENST00000255465.7 | CCNA1 | ENSG00000133101 | cyclin A1 Source HGNC Symbol Acc HGNC 1577 |
| B02 | UPFH0430337 | ENST00000227507.2 | CCND1 | ENSG00000110092 | cyclin D1 Source HGNC Symbol Acc HGNC 1582 |
| B03 | UPFH1132296 | ENST00000261254.8 | CCND2 | ENSG00000118971 | cyclin D2 Source HGNC Symbol Acc HGNC 1583 |
| B04 | UPFH1132297 | ENST00000444983.6 | CCNE1 | ENSG00000105173 | cyclin E1 Source HGNC Symbol Acc HGNC 1589 |
| B05 | UPFH1132791 | ENST00000261769.10 | CDH1 | ENSG00000039068 | cadherin 1 Source HGNC Symbol Acc HGNC 1748 |
| B06 | UPFH0210939 | ENST00000428848.7 | CDH13 | ENSG00000140945 | cadherin 13 Source HGNC Symbol Acc HGNC 1753 |
| B07 | UPFH1132961 | ENST00000266970.9 | CDK2 | ENSG00000123374 | cyclin dependent kinase 2 Source HGNC Symbol Acc HGNC 1771 |
| B08 | UPFH0312181 | ENST00000244741.9 | CDKN1A | ENSG00000124762 | cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784 |
| B09 | UPFH0327918 | ENST00000440480.7 | CDKN1C | ENSG00000129757 | cyclin dependent kinase inhibitor 1C Source HGNC Symbol Acc HGNC 1786 |
| B10 | UPFH0246593 | ENST00000494262.5 | CDKN2A | ENSG00000147889 | cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787 |
| B11 | UPFH1132338 | ENST00000329608.11 | CSF1 | ENSG00000184371 | colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432 |
| B12 | UPFH0228793 | ENST00000312134.3 | CST6 | ENSG00000175315 | cystatin E/M Source HGNC Symbol Acc HGNC 2478 |
| C01 | UPFH0097734 | ENST00000396183.7 | CTNNB1 | ENSG00000168036 | catenin beta 1 Source HGNC Symbol Acc HGNC 2514 |
| C02 | UPFH1132343 | ENST00000637815.1 | CTSD | ENSG00000117984 | cathepsin D Source HGNC Symbol Acc HGNC 2529 |
| C03 | UPFH1132380 | ENST00000503392.1 | EGF | ENSG00000138798 | epidermal growth factor Source HGNC Symbol Acc HGNC 3229 |
| C04 | UPFH1132381 | ENST00000420316.6 | EGFR | ENSG00000146648 | epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236 |
| C05 | UPFH1132388 | ENST00000541774.5 | ERBB2 | ENSG00000141736 | erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430 |
| C06 | UPFH0599047 | ENST00000206249.7 | ESR1 | ENSG00000091831 | estrogen receptor 1 Source HGNC Symbol Acc HGNC 3467 |
| C07 | UPFH0094598 | ENST00000358599.9 | ESR2 | ENSG00000140009 | estrogen receptor 2 Source HGNC Symbol Acc HGNC 3468 |
| C08 | UPFH0457116 | ENST00000250448.3 | FOXA1 | ENSG00000129514 | forkhead box A1 Source HGNC Symbol Acc HGNC 5021 |
| C09 | UPFH1132416 | ENST00000645492.1 | GATA3 | ENSG00000107485 | GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172 |
| C10 | UPFH0266526 | ENST00000546141.5 | GLI1 | ENSG00000111087 | GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317 |
| | | ENST000005577 | | ENSG000000 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|-------------|--------------------|----------|-----------------|--|
| C11 | UPFH0236129 | 695.5 | GRB7 | 141738 | growth factor receptor bound protein 7 Source HGNC Symbol Acc HGNC 4567 |
| C12 | UPFH0262059 | ENST00000398606.8 | GSTP1 | ENSG00000084207 | glutathione S-transferase pi 1 Source HGNC Symbol Acc HGNC 4638 |
| D01 | UPFH0558457 | ENST00000399849.4 | HIC1 | ENSG00000177374 | HIC ZBTB transcriptional repressor 1 Source HGNC Symbol Acc HGNC 4909 |
| D02 | UPFH1132463 | ENST00000376112.4 | ID1 | ENSG00000125968 | inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360 |
| D03 | UPFH0229443 | ENST00000337514.10 | IGF1 | ENSG00000017427 | insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464 |
| D04 | UPFH0237955 | ENST00000650285.1 | IGF1R | ENSG00000140443 | insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465 |
| D05 | UPFH1132893 | ENST00000275521.10 | IGFBP3 | ENSG00000146674 | insulin like growth factor binding protein 3 Source HGNC Symbol Acc HGNC 5472 |
| D06 | UPFH1172910 | ENST00000258743.10 | IL6 | ENSG00000136244 | interleukin 6 Source HGNC Symbol Acc HGNC 6018 |
| D07 | UPFH0569765 | ENST00000371222.3 | JUN | ENSG00000177606 | Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204 |
| D08 | UPFH0381528 | ENST00000388835.4 | KRT18 | ENSG00000111057 | keratin 18 Source HGNC Symbol Acc HGNC 6430 |
| D09 | UPFH0435640 | ENST00000361566.7 | KRT19 | ENSG00000171345 | keratin 19 Source HGNC Symbol Acc HGNC 6436 |
| D10 | UPFH0589368 | ENST00000548409.5 | KRT5 | ENSG00000186081 | keratin 5 Source HGNC Symbol Acc HGNC 6442 |
| D11 | UPFH0434758 | ENST00000547176.3 | KRT8 | ENSG00000170421 | keratin 8 Source HGNC Symbol Acc HGNC 6446 |
| D12 | UPFH0366815 | ENST00000215832.10 | MAPK1 | ENSG00000100030 | mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871 |
| E01 | UPFH1132534 | ENST00000481230.1 | MAPK3 | ENSG00000102882 | mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877 |
| E02 | UPFH1132535 | ENST00000374179.8 | MAPK8 | ENSG00000107643 | mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881 |
| E03 | UPFH0403444 | ENST00000306010.8 | MGMT | ENSG00000170430 | O-6-methylguanine-DNA methyltransferase Source HGNC Symbol Acc HGNC 7059 |
| E04 | UPFH1132549 | ENST00000368653.7 | MKI67 | ENSG00000148773 | marker of proliferation Ki-67 Source HGNC Symbol Acc HGNC 7107 |
| E05 | UPFH0346001 | ENST00000231790.6 | MLH1 | ENSG00000076242 | mutL homolog 1 Source HGNC Symbol Acc HGNC 7127 |
| E06 | UPFH1132551 | ENST00000437642.6 | MMP2 | ENSG00000087245 | matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166 |
| E07 | UPFH0367626 | ENST00000372330.3 | MMP9 | ENSG00000100985 | matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176 |
| E08 | UPFH0433185 | ENST00000368393.7 | MUC1 | ENSG00000185499 | mucin 1, cell surface associated Source HGNC Symbol Acc HGNC 7508 |
| E09 | UPFH1132563 | ENST00000517291.1 | MYC | ENSG00000136997 | MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553 |
| E10 | UPFH0432508 | ENST00000336097.7 | NME1 | ENSG00000239672 | NME/NM23 nucleoside diphosphate kinase 1 Source HGNC Symbol Acc HGNC 7849 |
| E11 | UPFH0543837 | ENST00000277541.7 | NOTCH1 | ENSG00000148400 | notch 1 Source HGNC Symbol Acc HGNC 7881 |
| E12 | UPFH1132917 | ENST00000394464.7 | NR3C1 | ENSG00000113580 | nuclear receptor subfamily 3 group C member 1 Source HGNC Symbol Acc HGNC 7978 |
| F01 | UPFH0586168 | ENST00000617858.4 | PGR | ENSG00000082175 | progesterone receptor Source HGNC Symbol Acc HGNC 8910 |
| F02 | UPFH1132831 | ENST00000446342.5 | PLAU | ENSG00000122861 | plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052 |
| F03 | UPFH0283157 | ENST00000491815.1 | PRDM2 | ENSG00000116731 | PR/SET domain 2 Source HGNC Symbol Acc HGNC 9347 |
| F04 | UPFH1132982 | ENST00000371953.8 | PTEN | ENSG00000171862 | phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588 |
| F05 | UPFH1132642 | ENST00000367468.10 | PTGS2 | ENSG00000073756 | prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605 |
| F06 | UPFH1133183 | ENST00000247470.10 | PYCARD | ENSG00000103490 | PYD and CARD domain containing Source HGNC Symbol Acc HGNC 16608 |
| F07 | UPFH0083509 | ENST00000458646.1 | RARB | ENSG00000077092 | retinoic acid receptor beta Source HGNC Symbol Acc HGNC 9865 |
| F08 | UPFH0117232 | ENST00000616212.4 | RASSF1 | ENSG00000068028 | Ras association domain family member 1 Source HGNC Symbol Acc HGNC 9882 |
| F09 | UPFH0001483 | ENST00000267163.5 | RB1 | ENSG00000139687 | RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884 |
| F10 | UPFH0384736 | ENST00000223095.4 | SERPINE1 | ENSG00000106366 | serpin family E member 1 Source HGNC Symbol Acc HGNC 8583 |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|----------|-------------|--------------------|---------|-----------------|--|
| F11 | UPFH0380654 | ENST00000339276.6 | SFN | ENSG00000175793 | stratifin Source HGNC Symbol Acc HGNC 10773 |
| F12 | UPFH1132676 | ENST00000220772.8 | SFRP1 | ENSG00000104332 | secreted frizzled related protein 1 Source HGNC Symbol Acc HGNC 10776 |
| G01 | UPFH0143098 | ENST00000586829.1 | SLC39A6 | ENSG00000141424 | solute carrier family 39 member 6 Source HGNC Symbol Acc HGNC 18607 |
| G02 | UPFH0037938 | ENST00000509941.1 | SLIT2 | ENSG00000145147 | slit guidance ligand 2 Source HGNC Symbol Acc HGNC 11086 |
| G03 | UPFH1132690 | ENST00000020945.4 | SNAI2 | ENSG00000019549 | snail family transcriptional repressor 2 Source HGNC Symbol Acc HGNC 11094 |
| G04 | UPFH0308412 | ENST00000472968.1 | SRC | ENSG00000197122 | SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283 |
| G05 | UPFH0417595 | ENST00000398431.2 | TFF3 | ENSG00000160180 | trefoil factor 3 Source HGNC Symbol Acc HGNC 11757 |
| G06 | UPFH0193430 | ENST00000221930.5 | TGFB1 | ENSG00000105329 | transforming growth factor beta 1 Source NCBI gene Acc 7040 |
| G07 | UPFH1132847 | ENST00000260356.5 | THBS1 | ENSG00000137801 | thrombospondin 1 Source HGNC Symbol Acc HGNC 11785 |
| G08 | UPFH0565795 | ENST00000269305.8 | TP53 | ENSG00000141510 | tumor protein p53 Source HGNC Symbol Acc HGNC 11998 |
| G09 | UPFH1132927 | ENST00000354437.8 | TP73 | ENSG00000078900 | tumor protein p73 Source HGNC Symbol Acc HGNC 12003 |
| G10 | UPFH1132743 | ENST00000242261.6 | TWIST1 | ENSG00000122691 | twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428 |
| G11 | UPFH0281656 | ENST00000425836.6 | VEGFA | ENSG00000112715 | vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680 |
| G12 | UPFH0306026 | ENST00000611155.4 | XBP1 | ENSG00000100219 | X-box binding protein 1 Source HGNC Symbol Acc HGNC 12801 |
| 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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