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

# Human IL6/STAT3 Signaling Pathway

## Cat. no. 249955 UPHS-160ZA

## 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 | BAX | BCL2 | CCL2 | CCL3 | CCL4 | CCL5 | CD4 | CD40 | CD40LG | CD80 | CDC25A |
| B | CDKN1A | CEBPD | CSF1 | CSF2 | CSF3 | CSF3R | CXCL10 | CXCL12 | CXCR4 | EGFR | FAS | FASLG |
| C | HGF | IKBKB | IL10 | IL11 | IL12A | IL13 | IL15 | IL17A | IL18 | IL18R1 | IL1A | IL1B |
| D | IL1R1 | IL2 | IL21 | IL22 | IL23A | IL2RA | IL3 | IL4 | IL5 | IL6 | IL6R | IL6ST |
| E | IL7 | CXCL8 | IL9 | JAK2 | JAK3 | LIF | LIFR | LTA | MAP2K1 | MAPK1 | MAPK14 | MAPK3 |
| F | MAPK8 | MET | MTOR | MYC | NFKB1 | NFKBIA | OSM | OSMR | PIAS3 | PIM1 | RAC1 | RELA |
| G | SOCS1 | SOCS3 | SRC | STAT3 | TLR4 | TNF | TNFRSF10B | TNFRSF1A | TNFRSF1B | TNFSF10 | TNFSF11 | TYK2 |
| 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 | UPFH0540159 | ENST00000293288.12 | BAX | ENSG00000087088 | BCL2 associated X, apoptosis regulator Source HGNC Symbol Acc HGNC 959 |
| A03 | UPFH1132900 | ENST00000333681.5 | BCL2 | ENSG00000171791 | BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990 |
| A04 | UPFH1132783 | ENST00000225831.4 | CCL2 | ENSG00000108691 | C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618 |
| A05 | UPFH1132784 | ENST00000613922.2 | CCL3 | ENSG00000277632 | C-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 10627 |
| A06 | UPFH1132785 | ENST00000615863.2 | CCL4 | ENSG00000275302 | C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630 |
| A07 | UPFH1132786 | ENST00000603197.6 | CCL5 | ENSG00000271503 | C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632 |
| A08 | UPFH1132302 | ENST00000541982.5 | CD4 | ENSG00000010610 | CD4 molecule Source HGNC Symbol Acc HGNC 1678 |
| A09 | UPFH0317626 | ENST00000372285.7 | CD40 | ENSG00000101017 | CD40 molecule Source HGNC Symbol Acc HGNC 11919 |
| A10 | UPFH0592498 | ENST00000370629.6 | CD40LG | ENSG00000102245 | CD40 ligand Source HGNC Symbol Acc HGNC 11935 |
| A11 | UPFH1132790 | ENST00000264246.8 | CD80 | ENSG00000121594 | CD80 molecule Source HGNC Symbol Acc HGNC 1700 |
| A12 | UPFH0432792 | ENST00000302506.7 | CDC25A | ENSG00000164045 | cell division cycle 25A Source HGNC Symbol Acc HGNC 1725 |
| B01 | UPFH0312181 | ENST00000244741.9 | CDKN1A | ENSG00000124762 | cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784 |
| B02 | UPFH0348961 | ENST00000408965.3 | CEBPD | ENSG00000221869 | CCAAT enhancer binding protein delta Source HGNC Symbol Acc HGNC 1835 |
| B03 | UPFH1132338 | ENST00000329608.11 | CSF1 | ENSG00000184371 | colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432 |
| B04 | UPFH1132793 | ENST00000296871.4 | CSF2 | ENSG00000164400 | colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434 |
| B05 | UPFH1132794 | ENST00000225474.6 | CSF3 | ENSG00000108342 | colony stimulating factor 3 Source HGNC Symbol Acc HGNC 2438 |
| B06 | UPFH0400766 | ENST00000526980.5 | CSF3R | ENSG00000119535 | colony stimulating factor 3 receptor Source HGNC Symbol Acc HGNC 2439 |
| B07 | UPFH0196315 | ENST00000306602.3 | CXCL10 | ENSG00000169245 | C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637 |
| B08 | UPFH0092551 | ENST00000374429.6 | CXCL12 | ENSG00000107562 | C-X-C motif chemokine ligand 12 Source HGNC Symbol Acc HGNC 10672 |
| B09 | UPFH0570418 | ENST00000241393.3 | CXCR4 | ENSG00000121966 | C-X-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 2561 |
| B10 | UPFH1132381 | ENST00000420316.6 | EGFR | ENSG00000146648 | epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236 |
| B11 | UPFH1132395 | ENST00000357339.6 | FAS | ENSG00000026103 | Fas cell surface death receptor Source HGNC Symbol Acc HGNC 11920 |
| B12 | UPFH1132396 | ENST00000367721.3 | FASLG | ENSG00000117560 | Fas ligand Source HGNC Symbol Acc HGNC 11936 |
| C01 | UPFH1132871 | ENST00000643024.1 | HGF | ENSG00000019991 | hepatocyte growth factor Source HGNC Symbol Acc HGNC 4893 |
| C02 | UPFH0596293 | ENST00000649612.2 | IKBKB | ENSG00000104365 | inhibitor of nuclear factor kappa B kinase subunit beta Source HGNC Symbol Acc HGNC 5960 |
| C03 | UPFH0028177 | ENST00000423557.1 | IL10 | ENSG00000136634 | interleukin 10 Source HGNC Symbol Acc HGNC 5962 |
| C04 | UPFH1132477 | ENST00000585513.1 | IL11 | ENSG00000095752 | interleukin 11 Source HGNC Symbol Acc HGNC 5966 |
| C05 | UPFH1132478 | ENST00000466512.1 | IL12A | ENSG00000168811 | interleukin 12A Source HGNC Symbol Acc HGNC 5969 |
| C06 | UPFH1132807 | ENST00000617259.2 | IL13 | ENSG00000169194 | interleukin 13 Source HGNC Symbol Acc HGNC 5973 |
| C07 | UPFH1132873 | ENST00000296545.11 | IL15 | ENSG00000164136 | interleukin 15 Source HGNC Symbol Acc HGNC 5977 |
| C08 | UPFH0091505 | ENST00000648244.1 | IL17A | ENSG00000112115 | interleukin 17A Source HGNC Symbol Acc HGNC 5981 |
| C09 | UPFH1132481 | ENST00000528832.1 | IL18 | ENSG00000150782 | interleukin 18 Source HGNC Symbol Acc HGNC 5986 |
| C10 | UPFH0567076 | ENST00000233957.5 | IL18R1 | ENSG00000115604 | interleukin 18 receptor 1 Source HGNC Symbol Acc HGNC 5988 |
| | | ENST00000263 | | ENSG00000 | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|---|---|---|---|---|---|
| C11 | UPFH0436255 | 339.3 | IL1A | 115008 | interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991 |
| C12 | UPFH0163764 | ENST00000263341.6 | IL1B | ENSG00000125538 | interleukin 1 beta Source HGNC Symbol Acc HGNC 5992 |
| D01 | UPFH1132482 | ENST00000442590.5 | IL1R1 | ENSG00000115594 | interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993 |
| D02 | UPFH0116492 | ENST00000226730.4 | IL2 | ENSG00000109471 | interleukin 2 Source HGNC Symbol Acc HGNC 6001 |
| D03 | UPFH0321856 | ENST00000648588.1 | IL21 | ENSG00000138684 | interleukin 21 Source HGNC Symbol Acc HGNC 6005 |
| D04 | UPFH0614981 | ENST00000328087.6 | IL22 | ENSG00000127318 | interleukin 22 Source HGNC Symbol Acc HGNC 14900 |
| D05 | UPFH1132809 | ENST00000228534.6 | IL23A | ENSG00000110944 | interleukin 23 subunit alpha Source HGNC Symbol Acc HGNC 15488 |
| D06 | UPFH0323649 | ENST00000447847.1 | IL2RA | ENSG00000134460 | interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008 |
| D07 | UPFH0282899 | ENST00000296870.2 | IL3 | ENSG00000164399 | interleukin 3 Source HGNC Symbol Acc HGNC 6011 |
| D08 | UPFH0226437 | ENST00000231449.7 | IL4 | ENSG00000113520 | interleukin 4 Source HGNC Symbol Acc HGNC 6014 |
| D09 | UPFH1132811 | ENST00000231454.6 | IL5 | ENSG00000113525 | interleukin 5 Source HGNC Symbol Acc HGNC 6016 |
| D10 | UPFH1172910 | ENST00000258743.10 | IL6 | ENSG00000136244 | interleukin 6 Source HGNC Symbol Acc HGNC 6018 |
| D11 | UPFH1132484 | ENST00000622330.4 | IL6R | ENSG00000160712 | interleukin 6 receptor Source HGNC Symbol Acc HGNC 6019 |
| D12 | UPFH0582962 | ENST00000523039.5 | IL6ST | ENSG00000134352 | interleukin 6 signal transducer Source HGNC Symbol Acc HGNC 6021 |
| E01 | UPFH1132812 | ENST00000263851.9 | IL7 | ENSG00000104432 | interleukin 7 Source HGNC Symbol Acc HGNC 6023 |
| E02 | UPFH0120553 | ENST00000307407.8 | CXCL8 | ENSG00000169429 | C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025 |
| E03 | UPFH0611711 | ENST00000274520.1 | IL9 | ENSG00000145839 | interleukin 9 Source HGNC Symbol Acc HGNC 6029 |
| E04 | UPFH1132818 | ENST00000381652.3 | JAK2 | ENSG00000096968 | Janus kinase 2 Source HGNC Symbol Acc HGNC 6192 |
| E05 | UPFH0316244 | ENST00000458235.5 | JAK3 | ENSG00000105639 | Janus kinase 3 Source HGNC Symbol Acc HGNC 6193 |
| E06 | UPFH1132822 | ENST00000249075.4 | LIF | ENSG00000128342 | LIF, interleukin 6 family cytokine Source HGNC Symbol Acc HGNC 6596 |
| E07 | UPFH0041279 | ENST00000506003.5 | LIFR | ENSG00000113594 | LIF receptor alpha Source HGNC Symbol Acc HGNC 6597 |
| E08 | UPFH1132824 | ENST00000454783.5 | LTA | ENSG00000226979 | lymphotoxin alpha Source HGNC Symbol Acc HGNC 6709 |
| E09 | UPFH1132932 | ENST00000307102.9 | MAP2K1 | ENSG00000169032 | mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840 |
| E10 | UPFH0366815 | ENST00000215832.10 | MAPK1 | ENSG00000100030 | mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871 |
| E11 | UPFH0068247 | ENST00000229795.7 | MAPK14 | ENSG00000112062 | mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876 |
| E12 | UPFH1132534 | ENST00000481230.1 | MAPK3 | ENSG00000102882 | mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877 |
| F01 | UPFH1132535 | ENST00000374179.8 | MAPK8 | ENSG00000107643 | mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881 |
| F02 | UPFH1132915 | ENST00000436117.2 | MET | ENSG00000105976 | MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029 |
| F03 | UPFH1132560 | ENST00000361445.8 | MTOR | ENSG00000198793 | mechanistic target of rapamycin kinase Source HGNC Symbol Acc HGNC 3942 |
| F04 | UPFH1132563 | ENST00000517291.1 | MYC | ENSG00000136997 | MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553 |
| F05 | UPFH1132828 | ENST00000226574.9 | NFKB1 | ENSG00000109320 | nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794 |
| F06 | UPFH0444462 | ENST00000216797.9 | NFKBIA | ENSG00000100906 | NFKB inhibitor alpha Source HGNC Symbol Acc HGNC 7797 |
| F07 | UPFH1132603 | ENST00000215781.3 | OSM | ENSG00000099985 | oncostatin M Source HGNC Symbol Acc HGNC 8506 |
| F08 | UPFH0089755 | ENST00000502536.5 | OSMR | ENSG00000145623 | oncostatin M receptor Source HGNC Symbol Acc HGNC 8507 |
| F09 | UPFH0577185 | ENST00000393046.3 | PIAS3 | ENSG00000131788 | protein inhibitor of activated STAT 3 Source HGNC Symbol Acc HGNC 16861 |
| F10 | UPFH0211822 | ENST00000479509.1 | PIM1 | ENSG00000137193 | Pim-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 8986 |
| | | | | | |

| Position | Assay | Name | Symbol | Ensembl ID | Description |
|---|---|---|---|---|---|
| F11 | UPFH1132648 | ENST00000348035.9 | RAC1 | ENSG00000136238 | Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801 |
| F12 | UPFH1132884 | ENST00000615805.4 | RELA | ENSG00000173039 | RELA proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9955 |
| G01 | UPFH1132887 | ENST00000644787.1 | SOCS1 | ENSG00000185338 | suppressor of cytokine signaling 1 Source HGNC Symbol Acc HGNC 19383 |
| G02 | UPFH1132974 | ENST00000330871.3 | SOCS3 | ENSG00000184557 | suppressor of cytokine signaling 3 Source HGNC Symbol Acc HGNC 19391 |
| G03 | UPFH0308412 | ENST00000472968.1 | SRC | ENSG00000197122 | SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283 |
| G04 | UPFH0531262 | ENST00000404395.3 | STAT3 | ENSG00000168610 | signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364 |
| G05 | UPFH1132859 | ENST00000645071.1 | TLR4 | ENSG00000136869 | toll like receptor 4 Source HGNC Symbol Acc HGNC 11850 |
| G06 | UPFH1132978 | ENST00000449264.3 | TNF | ENSG00000232810 | tumor necrosis factor Source HGNC Symbol Acc HGNC 11892 |
| G07 | UPFH1132850 | ENST00000347739.3 | TNFRSF10B | ENSG00000120889 | TNF receptor superfamily member 10b Source HGNC Symbol Acc HGNC 11905 |
| G08 | UPFH1132732 | ENST00000162749.6 | TNFRSF1A | ENSG00000067182 | TNF receptor superfamily member 1A Source HGNC Symbol Acc HGNC 11916 |
| G09 | UPFH1132926 | ENST00000536782.2 | TNFRSF1B | ENSG00000028137 | TNF receptor superfamily member 1B Source HGNC Symbol Acc HGNC 11917 |
| G10 | UPFH1132733 | ENST00000241261.7 | TNFSF10 | ENSG00000121858 | TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925 |
| G11 | UPFH1132852 | ENST00000544862.5 | TNFSF11 | ENSG00000120659 | TNF superfamily member 11 Source HGNC Symbol Acc HGNC 11926 |
| G12 | UPFH0496191 | ENST00000525621.5 | TYK2 | ENSG00000105397 | tyrosine kinase 2 Source HGNC Symbol Acc HGNC 12440 |
| 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 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.