

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

## Human Drug Transporters

Cat. no. 249955 UPHS-070ZR

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	ABCA1	ABCA12	ABCA13	ABCA2	ABCA3	ABCA4	ABCA5	ABCA9	ABCB1	ABCB11	ABCB4	ABCB5
B	ABCB6	ABCC1	ABCC10	ABCC11	ABCC12	ABCC2	ABCC3	ABCC4	ABCC5	ABCD1	ABCD3	ABCD4
C	ABCF1	ABCG2	ABCG8	AQP1	AQP7	AQP9	ATP6V0C	ATP7A	ATP7B	MVP	SLC10A1	SLC10A2
D	SLC15A1	SLC15A2	SLC16A1	SLC16A2	SLC16A3	SLC19A1	SLC19A2	SLC19A3	SLC22A1	SLC22A2	SLC22A3	SLC22A6
E	SLC22A7	SLC22A8	SLC22A9	SLC25A13	SLC28A1	SLC28A2	SLC28A3	SLC29A1	SLC29A2	SLC2A1	SLC2A2	SLC2A3
F	SLC31A1	SLC38A2	SLC38A5	SLC3A1	SLC3A2	SLC5A1	SLC5A4	SLC7A11	SLC7A5	SLC7A6	SLC7A7	SLC7A8
G	SLC7A9	SLCO1A2	SLCO1B1	SLCO1B3	SLCO2A1	SLCO2B1	SLCO3A1	SLCO4A1	TAP1	TAP2	VDAC1	VDAC2
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	UPFH0384523	ENST00000423487.6	ABCA1	ENSG00000165029	ATP binding cassette subfamily A member 1 Source HGNC Symbol Acc HGNC 29
A02	UPFH0089896	ENST00000389661.4	ABCA12	ENSG00000144452	ATP binding cassette subfamily A member 12 Source HGNC Symbol Acc HGNC 14637
A03	UPFH0216780	ENST00000484268.1	ABCA13	ENSG00000179869	ATP binding cassette subfamily A member 13 Source HGNC Symbol Acc HGNC 14638
A04	UPFH0059122	ENST00000265662.9	ABCA2	ENSG00000107331	ATP binding cassette subfamily A member 2 Source HGNC Symbol Acc HGNC 32
A05	UPFH0026356	ENST00000301732.10	ABCA3	ENSG00000167972	ATP binding cassette subfamily A member 3 Source HGNC Symbol Acc HGNC 33
A06	UPFH0562021	ENST00000460514.1	ABCA4	ENSG00000198691	ATP binding cassette subfamily A member 4 Source HGNC Symbol Acc HGNC 34
A07	UPFH0232804	ENST00000593153.5	ABCA5	ENSG00000154265	ATP binding cassette subfamily A member 5 Source HGNC Symbol Acc HGNC 35
A08	UPFH0147453	ENST00000495634.5	ABCA9	ENSG00000154258	ATP binding cassette subfamily A member 9 Source HGNC Symbol Acc HGNC 39
A09	UPFH0266833	ENST00000483831.1	ABCB1	ENSG00000085563	ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40
A10	UPFH0141625	ENST00000263817.7	ABCB11	ENSG00000073734	ATP binding cassette subfamily B member 11 Source HGNC Symbol Acc HGNC 42
A11	UPFH0185386	ENST00000644106.1	ABCB4	ENSG00000005471	ATP binding cassette subfamily B member 4 Source HGNC Symbol Acc HGNC 45
A12	UPFH0418174	ENST00000443026.6	ABCB5	ENSG00000004846	ATP binding cassette subfamily B member 5 Source HGNC Symbol Acc HGNC 46
B01	UPFH0322642	ENST00000295750.5	ABCB6	ENSG00000115657	ATP binding cassette subfamily B member 6 (Langereis blood group) Source HGNC Symbol Acc HGNC 47
B02	UPFH0348703	ENST00000575422.5	ABCC1	ENSG00000103222	ATP binding cassette subfamily C member 1 Source HGNC Symbol Acc HGNC 51
B03	UPFH0297243	ENST00000372515.8	ABCC10	ENSG00000124574	ATP binding cassette subfamily C member 10 Source HGNC Symbol Acc HGNC 52
B04	UPFH0388816	ENST00000569172.1	ABCC11	ENSG00000121270	ATP binding cassette subfamily C member 11 Source HGNC Symbol Acc HGNC 14639
B05	UPFH0096683	ENST00000311303.7	ABCC12	ENSG00000140798	ATP binding cassette subfamily C member 12 Source HGNC Symbol Acc HGNC 14640
B06	UPFH0460991	ENST00000649493.1	ABCC2	ENSG00000023839	ATP binding cassette subfamily C member 2 Source HGNC Symbol Acc HGNC 53
B07	UPFH0384648	ENST00000513589.1	ABCC3	ENSG00000108846	ATP binding cassette subfamily C member 3 Source HGNC Symbol Acc HGNC 54
B08	UPFH0531571	ENST00000645532.1	ABCC4	ENSG00000125257	ATP binding cassette subfamily C member 4 Source HGNC Symbol Acc HGNC 55
B09	UPFH0446580	ENST00000427120.6	ABCC5	ENSG00000114770	ATP binding cassette subfamily C member 5 Source HGNC Symbol Acc HGNC 56
B10	UPFH0179333	ENST00000218104.6	ABCD1	ENSG00000101986	ATP binding cassette subfamily D member 1 Source HGNC Symbol Acc HGNC 61
B11	UPFH0421067	ENST00000647998.1	ABCD3	ENSG00000117528	ATP binding cassette subfamily D member 3 Source HGNC Symbol Acc HGNC 67
B12	UPFH0213951	ENST00000356924.9	ABCD4	ENSG00000119688	ATP binding cassette subfamily D member 4 Source HGNC Symbol Acc HGNC 68
C01	UPFH0176212	ENST00000468958.1	ABCF1	ENSG00000204574	ATP binding cassette subfamily F member 1 Source HGNC Symbol Acc HGNC 70
C02	UPFH0026485	ENST00000650821.1	ABCG2	ENSG00000118777	ATP binding cassette subfamily G member 2 (Junior blood group) Source HGNC Symbol Acc HGNC 74
C03	UPFH0194125	ENST00000644611.1	ABCG8	ENSG00000143921	ATP binding cassette subfamily G member 8 Source HGNC Symbol Acc HGNC 13887
C04	UPFH1132239	ENST00000311813.10	AQP1	ENSG00000240583	aquaporin 1 (Colton blood group) Source HGNC Symbol Acc HGNC 633
C05	UPFH1125585	ENST00000624005.3	AQP7	ENSG00000165269	aquaporin 7 Source HGNC Symbol Acc HGNC 640
C06	UPFH0173872	ENST00000558772.5	AQP9	ENSG00000103569	aquaporin 9 Source HGNC Symbol Acc HGNC 643
C07	UPFH0305318	ENST00000565223.1	ATP6VOC	ENSG00000185883	ATPase H+ transporting V0 subunit c Source HGNC Symbol Acc HGNC 855
C08	UPFH0266109	ENST00000343533.9	ATP7A	ENSG00000165240	ATPase copper transporting alpha Source HGNC Symbol Acc HGNC 869
C09	UPFH0332160	ENST00000483772.1	ATP7B	ENSG00000123191	ATPase copper transporting beta Source HGNC Symbol Acc HGNC 870
C10	UPFH0261103	ENST00000569887.1	MVP	ENSG00000013364	major vault protein Source HGNC Symbol Acc HGNC 7531
		ENST00000216		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0398580	540.5	SLC10A1	100652	solute carrier family 10 member 1 Source HGNC Symbol Acc HGNC 10905
C12	UPFH0325766	ENST00000245312.4	SLC10A2	ENSG00000125255	solute carrier family 10 member 2 Source HGNC Symbol Acc HGNC 10906
D01	UPFH0346833	ENST00000376503.10	SLC15A1	ENSG00000088386	solute carrier family 15 member 1 Source HGNC Symbol Acc HGNC 10920
D02	UPFH0084862	ENST00000295605.6	SLC15A2	ENSG00000163406	solute carrier family 15 member 2 Source HGNC Symbol Acc HGNC 10921
D03	UPFH0345348	ENST00000429288.1	SLC16A1	ENSG00000155380	solute carrier family 16 member 1 Source HGNC Symbol Acc HGNC 10922
D04	UPFH0573010	ENST00000590447.1	SLC16A2	ENSG00000147100	solute carrier family 16 member 2 Source HGNC Symbol Acc HGNC 10923
D05	UPFH0287384	ENST00000578684.5	SLC16A3	ENSG00000141526	solute carrier family 16 member 3 Source HGNC Symbol Acc HGNC 10924
D06	UPFH0117041	ENST00000567670.5	SLC19A1	ENSG00000173638	solute carrier family 19 member 1 Source HGNC Symbol Acc HGNC 10937
D07	UPFH0180198	ENST00000643377.1	SLC19A2	ENSG00000117479	solute carrier family 19 member 2 Source HGNC Symbol Acc HGNC 10938
D08	UPFH0510537	ENST00000456524.6	SLC19A3	ENSG00000135917	solute carrier family 19 member 3 Source HGNC Symbol Acc HGNC 16266
D09	UPFH0593993	ENST00000324965.8	SLC22A1	ENSG00000175003	solute carrier family 22 member 1 Source HGNC Symbol Acc HGNC 10963
D10	UPFH0055865	ENST00000366952.1	SLC22A2	ENSG00000112499	solute carrier family 22 member 2 Source HGNC Symbol Acc HGNC 10966
D11	UPFH0329885	ENST00000275300.3	SLC22A3	ENSG00000146477	solute carrier family 22 member 3 Source HGNC Symbol Acc HGNC 10967
D12	UPFH0308710	ENST00000360421.8	SLC22A6	ENSG00000197901	solute carrier family 22 member 6 Source HGNC Symbol Acc HGNC 10970
E01	UPFH0278546	ENST00000372589.7	SLC22A7	ENSG00000137204	solute carrier family 22 member 7 Source HGNC Symbol Acc HGNC 10971
E02	UPFH0567604	ENST00000545207.5	SLC22A8	ENSG00000149452	solute carrier family 22 member 8 Source HGNC Symbol Acc HGNC 10972
E03	UPFH0616591	ENST00000536333.5	SLC22A9	ENSG00000149742	solute carrier family 22 member 9 Source HGNC Symbol Acc HGNC 16261
E04	UPFH0477428	ENST00000265631.9	SLC25A13	ENSG00000004864	solute carrier family 25 member 13 Source HGNC Symbol Acc HGNC 10983
E05	UPFH0595570	ENST00000286749.3	SLC28A1	ENSG00000156222	solute carrier family 28 member 1 Source HGNC Symbol Acc HGNC 11001
E06	UPFH0177452	ENST00000347644.8	SLC28A2	ENSG00000137860	solute carrier family 28 member 2 Source HGNC Symbol Acc HGNC 11002
E07	UPFH0026309	ENST00000495823.1	SLC28A3	ENSG00000197506	solute carrier family 28 member 3 Source HGNC Symbol Acc HGNC 16484
E08	UPFH0079172	ENST00000472176.2	SLC29A1	ENSG00000112759	solute carrier family 29 member 1 (Augustine blood group) Source HGNC Symbol Acc HGNC 11003
E09	UPFH0185777	ENST00000619145.4	SLC29A2	ENSG00000174669	solute carrier family 29 member 2 Source HGNC Symbol Acc HGNC 11004
E10	UPFH0225912	ENST00000426263.8	SLC2A1	ENSG00000117394	solute carrier family 2 member 1 Source HGNC Symbol Acc HGNC 11005
E11	UPFH0582813	ENST00000471379.1	SLC2A2	ENSG00000163581	solute carrier family 2 member 2 Source HGNC Symbol Acc HGNC 11006
E12	UPFH0576721	ENST00000544291.1	SLC2A3	ENSG00000059804	solute carrier family 2 member 3 Source HGNC Symbol Acc HGNC 11007
F01	UPFH0488367	ENST00000374212.5	SLC31A1	ENSG00000136868	solute carrier family 31 member 1 Source HGNC Symbol Acc HGNC 11016
F02	UPFH0460743	ENST00000612232.1	SLC38A2	ENSG00000134294	solute carrier family 38 member 2 Source HGNC Symbol Acc HGNC 13448
F03	UPFH0554283	ENST00000441948.5	SLC38A5	ENSG00000017483	solute carrier family 38 member 5 Source HGNC Symbol Acc HGNC 18070
F04	UPFH0437088	ENST00000409294.5	SLC3A1	ENSG00000138079	solute carrier family 3 member 1 Source HGNC Symbol Acc HGNC 11025
F05	UPFH0009367	ENST00000535296.5	SLC3A2	ENSG00000168003	solute carrier family 3 member 2 Source HGNC Symbol Acc HGNC 11026
F06	UPFH0592577	ENST00000486394.1	SLC5A1	ENSG00000100170	solute carrier family 5 member 1 Source HGNC Symbol Acc HGNC 11036
F07	UPFH0207397	ENST00000266086.5	SLC5A4	ENSG00000100191	solute carrier family 5 member 4 Source HGNC Symbol Acc HGNC 11039
F08	UPFH0169868	ENST00000509248.1	SLC7A11	ENSG00000151012	solute carrier family 7 member 11 Source HGNC Symbol Acc HGNC 11059
F09	UPFH0498671	ENST00000563489.1	SLC7A5	ENSG00000103257	solute carrier family 7 member 5 Source HGNC Symbol Acc HGNC 11063
F10	UPFH0487721	ENST00000563080.1	SLC7A6	ENSG00000103064	solute carrier family 7 member 6 Source HGNC Symbol Acc HGNC 11064

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0141356	ENST00000556287.5	SLC7A7	ENSG00000155465	solute carrier family 7 member 7 Source HGNC Symbol Acc HGNC 11065
F12	UPFH0179711	ENST00000532568.1	SLC7A8	ENSG00000092068	solute carrier family 7 member 8 Source HGNC Symbol Acc HGNC 11066
G01	UPFH0095710	ENST00000589659.1	SLC7A9	ENSG00000021488	solute carrier family 7 member 9 Source HGNC Symbol Acc HGNC 11067
G02	UPFH0414345	ENST00000544020.5	SLCO1A2	ENSG00000084453	solute carrier organic anion transporter family member 1A2 Source HGNC Symbol Acc HGNC 10956
G03	UPFH0607716	ENST00000256958.2	SLCO1B1	ENSG00000134538	solute carrier organic anion transporter family member 1B1 Source HGNC Symbol Acc HGNC 10959
G04	UPFH0338071	ENST00000544370.1	SLCO1B3	ENSG00000111700	solute carrier organic anion transporter family member 1B3 Source HGNC Symbol Acc HGNC 10961
G05	UPFH0549720	ENST00000493729.5	SLCO2A1	ENSG00000174640	solute carrier organic anion transporter family member 2A1 Source HGNC Symbol Acc HGNC 10955
G06	UPFH0043789	ENST00000527180.5	SLCO2B1	ENSG00000137491	solute carrier organic anion transporter family member 2B1 Source HGNC Symbol Acc HGNC 10962
G07	UPFH0291495	ENST00000555210.1	SLCO3A1	ENSG00000176463	solute carrier organic anion transporter family member 3A1 Source HGNC Symbol Acc HGNC 10952
G08	UPFH0593567	ENST00000370507.5	SLCO4A1	ENSG00000101187	solute carrier organic anion transporter family member 4A1 Source HGNC Symbol Acc HGNC 10953
G09	UPFH1132705	ENST00000354258.4	TAP1	ENSG00000168394	transporter 1, ATP binding cassette subfamily B member Source HGNC Symbol Acc HGNC 43
G10	UPFH0019635	ENST00000374897.3	TAP2	ENSG00000204267	transporter 2, ATP binding cassette subfamily B member Source HGNC Symbol Acc HGNC 44
G11	UPFH0294771	ENST00000492324.1	VDAC1	ENSG00000213585	voltage dependent anion channel 1 Source HGNC Symbol Acc HGNC 12669
G12	UPFH0309632	ENST00000298468.9	VDAC2	ENSG00000165637	voltage dependent anion channel 2 Source HGNC Symbol Acc HGNC 12672
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 $\mu$ 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.

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