

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

## Human NFκB Signaling Pathway

Cat. no. 249955 UPHS-025ZR

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	AGT	AKT1	ATF1	BCL10	BCL2A1	BCL2L1	BCL3	BIRC2	BIRC3	CARD11	CASP1	CASP8
B	CCL2	CCL5	CD27	CD40	CFLAR	CHUK	CSF1	CSF2	CSF3	EGFR	EGR1	ELK1
C	F2R	FADD	FASLG	FOS	HMOX1	ICAM1	IFNA1	IFNG	IKKB	IKBKE	IKBKG	IL10
D	IL1A	IL1B	IL1R1	CXCL8	IRAK1	IRAK2	IRF1	JUN	LTA	LTBR	MALT1	MAP3K1
E	MYD88	NFKB1	NFKB2	NFKBIA	NFKBIB	NFKBIE	NOD1	PSIP1	RAF1	REL	RELA	RELB
F	RHOA	RIPK1	STAT1	TBK1	TICAM1	TICAM2	TIMP1	TLR1	TLR2	TLR3	TLR4	TLR6
G	TLR9	TNF	TNFAIP3	TNFRSF10A	TNFRSF10B	TNFRSF1A	TNFSF10	TNFSF14	TRADD	TRAF2	TRAF3	TRAF6
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	UPFH1132773	ENST00000366667.5	AGT	ENSG00000135744	angiotensinogen Source HGNC Symbol Acc HGNC 333
A02	UPFH0453992	ENST0000055528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A03	UPFH0059653	ENST00000551831.5	ATF1	ENSG00000123268	activating transcription factor 1 Source HGNC Symbol Acc HGNC 783
A04	UPFH1132269	ENST00000620248.2	BCL10	ENSG00000142867	BCL10, immune signaling adaptor Source HGNC Symbol Acc HGNC 989
A05	UPFH1132270	ENST00000335661.6	BCL2A1	ENSG00000140379	BCL2 related protein A1 Source HGNC Symbol Acc HGNC 991
A06	UPFH1132271	ENST00000376062.6	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
A07	UPFH0057527	ENST0000044487.1	BCL3	ENSG00000069399	BCL3, transcription coactivator Source HGNC Symbol Acc HGNC 998
A08	UPFH0351057	ENST00000227758.6	BIRC2	ENSG00000110330	baculoviral IAP repeat containing 2 Source HGNC Symbol Acc HGNC 590
A09	UPFH0113281	ENST00000615299.4	BIRC3	ENSG00000023445	baculoviral IAP repeat containing 3 Source HGNC Symbol Acc HGNC 591
A10	UPFH0455033	ENST00000355508.3	CARD11	ENSG00000198286	caspase recruitment domain family member 11 Source HGNC Symbol Acc HGNC 16393
A11	UPFH0285144	ENST00000436863.7	CASP1	ENSG00000137752	caspase 1 Source HGNC Symbol Acc HGNC 1499
A12	UPFH0522971	ENST00000264275.9	CASP8	ENSG00000064012	caspase 8 Source HGNC Symbol Acc HGNC 1509
B01	UPFH1132783	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
B02	UPFH1132786	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
B03	UPFH0539172	ENST00000266557.3	CD27	ENSG00000139193	CD27 molecule Source HGNC Symbol Acc HGNC 11922
B04	UPFH0317626	ENST00000372285.7	CD40	ENSG00000101017	CD40 molecule Source HGNC Symbol Acc HGNC 11919
B05	UPFH1132312	ENST00000479953.6	CFLAR	ENSG00000003402	CASP8 and FADD like apoptosis regulator Source HGNC Symbol Acc HGNC 1876
B06	UPFH1132316	ENST00000370397.8	CHUK	ENSG00000213341	conserved helix-loop-helix ubiquitous kinase Source HGNC Symbol Acc HGNC 1974
B07	UPFH1132338	ENST00000329608.11	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
B08	UPFH1132793	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
B09	UPFH1132794	ENST00000225474.6	CSF3	ENSG00000108342	colony stimulating factor 3 Source HGNC Symbol Acc HGNC 2438
B10	UPFH1132381	ENST00000420316.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
B11	UPFH0558832	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
B12	UPFH0614738	ENST00000376983.8	ELK1	ENSG00000126767	ELK1, ETS transcription factor Source HGNC Symbol Acc HGNC 3321
C01	UPFH1132392	ENST00000319211.5	F2R	ENSG00000181104	coagulation factor II thrombin receptor Source HGNC Symbol Acc HGNC 3537
C02	UPFH1132906	ENST00000301838.4	FADD	ENSG00000168040	Fas associated via death domain Source HGNC Symbol Acc HGNC 3573
C03	UPFH1132396	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
C04	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C05	UPFH0433285	ENST00000216117.9	HMOX1	ENSG00000100292	heme oxygenase 1 Source HGNC Symbol Acc HGNC 5013
C06	UPFH1132462	ENST00000264832.8	ICAM1	ENSG00000090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
C07	UPFH0577805	ENST00000276927.2	IFNA1	ENSG00000197919	interferon alpha 1 Source HGNC Symbol Acc HGNC 5417
C08	UPFH1132473	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
C09	UPFH0596293	ENST00000649612.2	IKBKB	ENSG00000104365	inhibitor of nuclear factor kappa B kinase subunit beta Source HGNC Symbol Acc HGNC 5960
C10	UPFH0115965	ENST00000579827.6	IKBKE	ENSG00000263528	inhibitor of nuclear factor kappa B kinase subunit epsilon Source HGNC Symbol Acc HGNC 14552
		ENST00000611		ENSG000000	inhibitor of nuclear factor kappa B kinase subunit gamma Source HGNC

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0226012	176.4	IKBKG	269335	Symbol Acc HGNC 5961
C12	UPFH0028177	ENST0000042357.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D01	UPFH0436255	ENST0000026339.3	IL1A	ENSG00000115008	interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991
D02	UPFH0163764	ENST0000026341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
D03	UPFH1132482	ENST0000044259.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
D04	UPFH0120553	ENST00000307407.8	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
D05	UPFH1132489	ENST00000393687.6	IRAK1	ENSG00000184216	interleukin 1 receptor associated kinase 1 Source HGNC Symbol Acc HGNC 6112
D06	UPFH1132874	ENST00000256458.5	IRAK2	ENSG00000134070	interleukin 1 receptor associated kinase 2 Source HGNC Symbol Acc HGNC 6113
D07	UPFH1132490	ENST00000476613.1	IRF1	ENSG00000125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
D08	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D09	UPFH1132824	ENST00000454783.5	LTA	ENSG00000226979	lymphotoxin alpha Source HGNC Symbol Acc HGNC 6709
D10	UPFH1132825	ENST00000228918.9	LTBR	ENSG00000111321	lymphotoxin beta receptor Source HGNC Symbol Acc HGNC 6718
D11	UPFH0582926	ENST00000348428.7	MALT1	ENSG00000172175	MALT1 paracaspase Source HGNC Symbol Acc HGNC 6819
D12	UPFH1132532	ENST00000399503.4	MAP3K1	ENSG00000095015	mitogen-activated protein kinase kinase kinase 1 Source HGNC Symbol Acc HGNC 6848
E01	UPFH1125930	ENST00000648963.1	MYD88	ENSG00000172936	MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562
E02	UPFH1132828	ENST00000226574.9	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E03	UPFH1132591	ENST00000652277.1	NFKB2	ENSG00000077150	nuclear factor kappa B subunit 2 Source HGNC Symbol Acc HGNC 7795
E04	UPFH0444462	ENST00000216797.9	NFKBIA	ENSG00000100906	NFKB inhibitor alpha Source HGNC Symbol Acc HGNC 7797
E05	UPFH0504502	ENST00000572515.5	NFKBIB	ENSG00000104825	NFKB inhibitor beta Source HGNC Symbol Acc HGNC 7798
E06	UPFH0004408	ENST00000443607.2	NFKBIE	ENSG00000146232	NFKB inhibitor epsilon Source HGNC Symbol Acc HGNC 7799
E07	UPFH1132916	ENST00000222823.9	NOD1	ENSG00000106100	nucleotide binding oligomerization domain containing 1 Source HGNC Symbol Acc HGNC 16390
E08	UPFH0436907	ENST00000380715.5	PSIP1	ENSG00000164985	PC4 and SFRS1 interacting protein 1 Source HGNC Symbol Acc HGNC 9527
E09	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
E10	UPFH0559135	ENST00000295025.12	REL	ENSG00000162924	REL proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9954
E11	UPFH1132884	ENST00000615805.4	RELA	ENSG00000173039	RELA proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9955
E12	UPFH0241038	ENST00000625761.2	RELB	ENSG00000104856	RELB proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9956
F01	UPFH1132657	ENST00000445425.4	RHOA	ENSG00000067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
F02	UPFH0390785	ENST00000380409.2	RIPK1	ENSG00000137275	receptor interacting serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 10019
F03	UPFH1132696	ENST00000392323.6	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
F04	UPFH1132706	ENST00000652657.1	TBK1	ENSG00000183735	TANK binding kinase 1 Source HGNC Symbol Acc HGNC 11584
F05	UPFH1132848	ENST00000248244.5	TICAM1	ENSG00000127666	toll like receptor adaptor molecule 1 Source NCBI gene Acc 148022
F06	UPFH1132924	ENST00000427199.2	TICAM2	ENSG00000243414	toll like receptor adaptor molecule 2 Source HGNC Symbol Acc HGNC 21354
F07	UPFH1132725	ENST00000456754.6	TIMP1	ENSG00000102265	TIMP metalloproteinase inhibitor 1 Source HGNC Symbol Acc HGNC 11820
F08	UPFH0034752	ENST00000308979.7	TLR1	ENSG00000174125	toll like receptor 1 Source HGNC Symbol Acc HGNC 11847
F09	UPFH0035742	ENST00000642700.1	TLR2	ENSG00000137462	toll like receptor 2 Source HGNC Symbol Acc HGNC 11848
F10	UPFH0561110	ENST00000296795.7	TLR3	ENSG00000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH1132859	ENST00000645071.1	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
F12	UPFH1172914	ENST00000508254.5	TLR6	ENSG00000174130	toll like receptor 6 Source HGNC Symbol Acc HGNC 16711
G01	UPFH1172915	ENST00000360658.2	TLR9	ENSG00000239732	toll like receptor 9 Source HGNC Symbol Acc HGNC 15633
G02	UPFH1132978	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G03	UPFH0576817	ENST00000485192.1	TNFAIP3	ENSG00000118503	TNF alpha induced protein 3 Source HGNC Symbol Acc HGNC 11896
G04	UPFH1132888	ENST00000524158.5	TNFRSF10A	ENSG00000104689	TNF receptor superfamily member 10a Source HGNC Symbol Acc HGNC 11904
G05	UPFH1132850	ENST00000347739.3	TNFRSF10B	ENSG00000120889	TNF receptor superfamily member 10b Source HGNC Symbol Acc HGNC 11905
G06	UPFH1132732	ENST00000162749.6	TNFRSF1A	ENSG00000067182	TNF receptor superfamily member 1A Source HGNC Symbol Acc HGNC 11916
G07	UPFH1132733	ENST00000241261.7	TNFSF10	ENSG00000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G08	UPFH1132854	ENST00000599359.1	TNFSF14	ENSG00000125735	TNF superfamily member 14 Source HGNC Symbol Acc HGNC 11930
G09	UPFH1132738	ENST00000345057.9	TRADD	ENSG00000102871	TNFRSF1A associated via death domain Source HGNC Symbol Acc HGNC 12030
G10	UPFH1132855	ENST00000247668.7	TRAF2	ENSG00000127191	TNF receptor associated factor 2 Source HGNC Symbol Acc HGNC 12032
G11	UPFH0301511	ENST00000560371.5	TRAF3	ENSG00000131323	TNF receptor associated factor 3 Source HGNC Symbol Acc HGNC 12033
G12	UPFH1132739	ENST00000348124.5	TRAF6	ENSG00000175104	TNF receptor associated factor 6 Source HGNC Symbol Acc HGNC 12036
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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