

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

## Human Apoptosis

Cat. no. 249955 UPHS-012ZR

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	ABL1	AIFM1	AKT1	APAF1	BAD	BAG1	BAG3	BAK1	BAX	BCL10	BCL2	BCL2A1
B	BCL2L1	BCL2L10	BCL2L11	BCL2L2	BFAR	BID	BIK	BIRC2	BIRC3	BIRC5	BIRC6	BNIP2
C	BNIP3	BNIP3L	BRAF	CASP1	CASP10	CASP14	CASP2	CASP3	CASP4	CASP5	CASP6	CASP7
D	CASP8	CASP9	CD27	CD40	CD40LG	CD70	CFLAR	CIDEA	CIDEB	CRADD	CYCS	DAPK1
E	DFFA	DIABLO	FADD	FAS	FASLG	GADD45A	HRK	IGF1R	IL10	LTA	LTBR	MCL1
F	NAIP	NFKB1	NOD1	NOL3	PYCARD	RIPK2	TNF	TNFRSF10A	TNFRSF10B	TNFRSF11B	TNFRSF1A	TNFRSF1B
G	TNFRSF21	TNFRSF25	TNFRSF9	TNFSF10	TNFSF8	TP53	TP53BP2	TP73	TRADD	TRAF2	TRAF3	XIAP
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	UPFH1132770	ENST00000318560.6	ABL1	ENSG00000097007	ABL proto-oncogene 1, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 76
A02	UPFH1132774	ENST00000287295.8	AIFM1	ENSG00000156709	apoptosis inducing factor mitochondria associated 1 Source HGNC Symbol Acc HGNC 8768
A03	UPFH0453992	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A04	UPFH1132235	ENST00000551964.5	APAF1	ENSG00000120868	apoptotic peptidase activating factor 1 Source HGNC Symbol Acc HGNC 576
A05	UPFH0437748	ENST00000394532.7	BAD	ENSG00000002330	BCL2 associated agonist of cell death Source HGNC Symbol Acc HGNC 936
A06	UPFH1132265	ENST00000641048.1	BAG1	ENSG00000107262	BCL2 associated athanogene 1 Source HGNC Symbol Acc HGNC 937
A07	UPFH0352059	ENST00000369085.7	BAG3	ENSG00000151929	BCL2 associated athanogene 3 Source HGNC Symbol Acc HGNC 939
A08	UPFH1132266	ENST00000360661.9	BAK1	ENSG00000030110	BCL2 antagonist/killer 1 Source HGNC Symbol Acc HGNC 949
A09	UPFH0540159	ENST00000293288.12	BAX	ENSG00000087088	BCL2 associated X, apoptosis regulator Source HGNC Symbol Acc HGNC 959
A10	UPFH1132269	ENST00000620248.2	BCL10	ENSG00000142867	BCL10, immune signaling adaptor Source HGNC Symbol Acc HGNC 989
A11	UPFH1132900	ENST00000333681.5	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A12	UPFH1132270	ENST00000335661.6	BCL2A1	ENSG00000140379	BCL2 related protein A1 Source HGNC Symbol Acc HGNC 991
B01	UPFH1132271	ENST00000376062.6	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
B02	UPFH1172917	ENST00000561198.1	BCL2L10	ENSG00000137875	BCL2 like 10 Source HGNC Symbol Acc HGNC 993
B03	UPFH1172900	ENST00000308659.12	BCL2L11	ENSG00000153094	BCL2 like 11 Source HGNC Symbol Acc HGNC 994
B04	UPFH0297334	ENST00000250405.9	BCL2L2	ENSG00000129473	BCL2 like 2 Source HGNC Symbol Acc HGNC 995
B05	UPFH0614375	ENST00000566710.1	BFAR	ENSG00000103429	bifunctional apoptosis regulator Source HGNC Symbol Acc HGNC 17613
B06	UPFH0184066	ENST00000622694.4	BID	ENSG00000015475	BH3 interacting domain death agonist Source HGNC Symbol Acc HGNC 1050
B07	UPFH1132960	ENST00000216115.3	BIK	ENSG00000100290	BCL2 interacting killer Source HGNC Symbol Acc HGNC 1051
B08	UPFH0351057	ENST00000227758.6	BIRC2	ENSG00000110330	baculoviral IAP repeat containing 2 Source HGNC Symbol Acc HGNC 590
B09	UPFH0113281	ENST00000615299.4	BIRC3	ENSG00000023445	baculoviral IAP repeat containing 3 Source HGNC Symbol Acc HGNC 591
B10	UPFH1132779	ENST00000301633.8	BIRC5	ENSG00000089685	baculoviral IAP repeat containing 5 Source HGNC Symbol Acc HGNC 593
B11	UPFH1124747	ENST00000421745.6	BIRC6	ENSG00000115760	baculoviral IAP repeat containing 6 Source HGNC Symbol Acc HGNC 13516
B12	UPFH0212268	ENST00000267859.7	BNIP2	ENSG00000140299	BCL2 interacting protein 2 Source HGNC Symbol Acc HGNC 1083
C01	UPFH0140616	ENST00000633835.1	BNIP3	ENSG00000176171	BCL2 interacting protein 3 Source HGNC Symbol Acc HGNC 1084
C02	UPFH1132277	ENST00000520409.5	BNIP3L	ENSG00000104765	BCL2 interacting protein 3 like Source HGNC Symbol Acc HGNC 1085
C03	UPFH0559252	ENST00000646891.1	BRAF	ENSG00000157764	B-Raf proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 1097
C04	UPFH0285144	ENST00000436863.7	CASP1	ENSG00000137752	caspase 1 Source HGNC Symbol Acc HGNC 1499
C05	UPFH1132283	ENST00000360132.7	CASP10	ENSG00000003400	caspase 10 Source HGNC Symbol Acc HGNC 1500
C06	UPFH1132979	ENST00000427043.4	CASP14	ENSG00000105141	caspase 14 Source HGNC Symbol Acc HGNC 1502
C07	UPFH0459272	ENST00000350623.7	CASP2	ENSG00000106144	caspase 2 Source HGNC Symbol Acc HGNC 1503
C08	UPFH1132892	ENST00000523916.5	CASP3	ENSG00000164305	caspase 3 Source HGNC Symbol Acc HGNC 1504
C09	UPFH1132284	ENST00000444739.7	CASP4	ENSG00000196954	caspase 4 Source HGNC Symbol Acc HGNC 1505
C10	UPFH1132865	ENST00000444749.6	CASP5	ENSG00000137757	caspase 5 Source HGNC Symbol Acc HGNC 1506
		ENST00000352		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0298502	981.7	CASP6	138794	caspase 6 Source HGNC Symbol Acc HGNC 1507
C12	UPFH0495219	ENST00000369318.7	CASP7	ENSG00000165806	caspase 7 Source HGNC Symbol Acc HGNC 1508
D01	UPFH0522971	ENST00000264275.9	CASP8	ENSG00000064012	caspase 8 Source HGNC Symbol Acc HGNC 1509
D02	UPFH0083593	ENST00000440484.1	CASP9	ENSG00000132906	caspase 9 Source HGNC Symbol Acc HGNC 1511
D03	UPFH0539172	ENST00000266557.3	CD27	ENSG00000139193	CD27 molecule Source HGNC Symbol Acc HGNC 11922
D04	UPFH0317626	ENST00000372285.7	CD40	ENSG00000101017	CD40 molecule Source HGNC Symbol Acc HGNC 11919
D05	UPFH0592498	ENST00000370629.6	CD40LG	ENSG00000102245	CD40 ligand Source HGNC Symbol Acc HGNC 11935
D06	UPFH1132789	ENST00000245903.4	CD70	ENSG00000125726	CD70 molecule Source NCBI gene Acc 970
D07	UPFH1132312	ENST00000479953.6	CFLAR	ENSG00000003402	CASP8 and FADD like apoptosis regulator Source HGNC Symbol Acc HGNC 1876
D08	UPFH0311068	ENST00000320477.9	CIDEA	ENSG00000176194	cell death inducing DFFA like effector a Source HGNC Symbol Acc HGNC 1976
D09	UPFH1132983	ENST00000554411.5	CIDEB	ENSG00000136305	cell death inducing DFFA like effector b Source HGNC Symbol Acc HGNC 1977
D10	UPFH1132335	ENST00000332896.8	CRADD	ENSG00000169372	CASP2 and RIPK1 domain containing adaptor with death domain Source HGNC Symbol Acc HGNC 2340
D11	UPFH0601305	ENST00000409409.5	CYCS	ENSG00000172115	cytochrome c, somatic Source HGNC Symbol Acc HGNC 19986
D12	UPFH1132354	ENST00000408954.8	DAPK1	ENSG00000196730	death associated protein kinase 1 Source HGNC Symbol Acc HGNC 2674
E01	UPFH1132358	ENST00000377036.2	DFFA	ENSG00000160049	DNA fragmentation factor subunit alpha Source HGNC Symbol Acc HGNC 2772
E02	UPFH1132360	ENST00000446652.5	DIABLO	ENSG00000184047	diablo IAP-binding mitochondrial protein Source HGNC Symbol Acc HGNC 21528
E03	UPFH1132906	ENST00000301838.4	FADD	ENSG00000168040	Fas associated via death domain Source HGNC Symbol Acc HGNC 3573
E04	UPFH1132395	ENST00000357339.6	FAS	ENSG00000026103	Fas cell surface death receptor Source HGNC Symbol Acc HGNC 11920
E05	UPFH1132396	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
E06	UPFH1132413	ENST00000370985.4	GADD45A	ENSG00000116717	growth arrest and DNA damage inducible alpha Source HGNC Symbol Acc HGNC 4095
E07	UPFH1172909	ENST00000257572.5	HRK	ENSG00000135116	harakiri, BCL2 interacting protein Source HGNC Symbol Acc HGNC 5185
E08	UPFH0237955	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
E09	UPFH0028177	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
E10	UPFH1132824	ENST00000454783.5	LTA	ENSG00000226979	lymphotoxin alpha Source HGNC Symbol Acc HGNC 6709
E11	UPFH1132825	ENST00000228918.9	LTBR	ENSG00000111321	lymphotoxin beta receptor Source HGNC Symbol Acc HGNC 6718
E12	UPFH1132538	ENST00000369026.3	MCL1	ENSG00000143384	MCL1, BCL2 family apoptosis regulator Source HGNC Symbol Acc HGNC 6943
F01	UPFH1132565	ENST00000503719.6	NAIP	ENSG00000249437	NLR family apoptosis inhibitory protein Source HGNC Symbol Acc HGNC 7634
F02	UPFH1132828	ENST00000226574.9	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
F03	UPFH1132916	ENST00000222823.9	NOD1	ENSG00000106100	nucleotide binding oligomerization domain containing 1 Source HGNC Symbol Acc HGNC 16390
F04	UPFH0321828	ENST00000564053.5	NOL3	ENSG00000140939	nucleolar protein 3 Source NCBI gene Acc 8996
F05	UPFH1133183	ENST00000247470.10	PYCARD	ENSG00000103490	PYD and CARD domain containing Source HGNC Symbol Acc HGNC 16608
F06	UPFH1132658	ENST00000220751.5	RIPK2	ENSG00000104312	receptor interacting serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 10020
F07	UPFH1132978	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
F08	UPFH1132888	ENST00000524158.5	TNFRSF10A	ENSG00000104689	TNF receptor superfamily member 10a Source HGNC Symbol Acc HGNC 11904
F09	UPFH1132850	ENST00000347739.3	TNFRSF10B	ENSG00000120889	TNF receptor superfamily member 10b Source HGNC Symbol Acc HGNC 11905
F10	UPFH1132851	ENST00000297350.9	TNFRSF11B	ENSG00000164761	TNF receptor superfamily member 11b Source HGNC Symbol Acc HGNC 11909

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH1132732	ENST00000162749.6	TNFRSF1A	ENSG00000067182	TNF receptor superfamily member 1A Source HGNC Symbol Acc HGNC 11916
F12	UPFH1132926	ENST00000536782.2	TNFRSF1B	ENSG00000028137	TNF receptor superfamily member 1B Source HGNC Symbol Acc HGNC 11917
G01	UPFH0235952	ENST00000296861.2	TNFRSF21	ENSG00000146072	TNF receptor superfamily member 21 Source HGNC Symbol Acc HGNC 13469
G02	UPFH0465524	ENST00000356876.7	TNFRSF25	ENSG00000215788	TNF receptor superfamily member 25 Source HGNC Symbol Acc HGNC 11910
G03	UPFH0607162	ENST00000615230.4	TNFRSF9	ENSG00000049249	TNF receptor superfamily member 9 Source HGNC Symbol Acc HGNC 11924
G04	UPFH1132733	ENST00000241261.7	TNFSF10	ENSG00000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G05	UPFH0562560	ENST00000223795.2	TNFSF8	ENSG00000106952	TNF superfamily member 8 Source HGNC Symbol Acc HGNC 11938
G06	UPFH0565795	ENST00000269305.8	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G07	UPFH0097395	ENST00000391878.6	TP53BP2	ENSG00000143514	tumor protein p53 binding protein 2 Source HGNC Symbol Acc HGNC 12000
G08	UPFH1132927	ENST00000354437.8	TP73	ENSG00000078900	tumor protein p73 Source HGNC Symbol Acc HGNC 12003
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	UPFH0572864	ENST00000371199.7	XIAP	ENSG00000101966	X-linked inhibitor of apoptosis Source HGNC Symbol Acc HGNC 592
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.

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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.