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

Human Oncogenes & Tumor Suppressor Genes

Cat. no. 249955 UPHS-502ZR

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	ABL1	AKT1	APC	ATM	BAX	BCL2	BCL2L1	BCR	BRCA1	BRCA2	CASP8	CCND1
B	CDH1	CDK4	CDKN1A	CDKN2A	CDKN2B	CDKN3	CTNNB1	E2F1	EGF	ELK1	ERBB2	ESR1
C	ETS1	FHIT	FOS	FOXD3	HGF	HIC1	HRAS	IGF2R	JAK2	JUN	JUNB	JUND
D	KIT	KITLG	KRAS	MCL1	MDM2	MEN1	MET	MGMT	MLH1	MOS	MYB	MYC
E	MYCN	NF1	NF2	NFKB1	NFKBIA	NRAS	PIK3C2A	PIK3CA	PML	PRKCA	RAF1	RARA
F	RASSF1	RB1	REL	RET	ROS1	RUNX1	RUNX3	S100A4	SERPINB5	SH3PXD2A	SMAD4	SRC
G	STAT3	STK11	TGFB1	TNF	TP53	TP73	TSC1	VHL	WT1	WWOX	XRCC1	ZHX2
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	UPFH0453992	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A03	UPFH1132236	ENST00000257430.9	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A04	UPFH1132252	ENST00000527805.5	ATM	ENSG00000149311	ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795
A05	UPFH0540159	ENST00000293288.12	BAX	ENSG00000087088	BCL2 associated X, apoptosis regulator Source HGNC Symbol Acc HGNC 959
A06	UPFH1132900	ENST00000333681.5	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A07	UPFH1132271	ENST00000376062.6	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
A08	UPFH0079096	ENST00000487968.5	BCR	ENSG00000186716	BCR, RhoGEF and GTPase activating protein Source HGNC Symbol Acc HGNC 1014
A09	UPFH1132279	ENST00000461574.1	BRCA1	ENSG00000012048	BRCA1, DNA repair associated Source HGNC Symbol Acc HGNC 1100
A10	UPFH0304950	ENST00000544455.5	BRCA2	ENSG00000139618	BRCA2, DNA repair associated Source HGNC Symbol Acc HGNC 1101
A11	UPFH0522971	ENST00000264275.9	CASP8	ENSG00000064012	caspase 8 Source HGNC Symbol Acc HGNC 1509
A12	UPFH0430337	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
B01	UPFH1132791	ENST00000261769.10	CDH1	ENSG00000039068	cadherin 1 Source HGNC Symbol Acc HGNC 1748
B02	UPFH0291148	ENST00000549606.5	CDK4	ENSG00000135446	cyclin dependent kinase 4 Source HGNC Symbol Acc HGNC 1773
B03	UPFH0312181	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B04	UPFH0246593	ENST00000494262.5	CDKN2A	ENSG00000147889	cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787
B05	UPFH0150846	ENST00000579591.1	CDKN2B	ENSG00000147883	cyclin dependent kinase inhibitor 2B Source HGNC Symbol Acc HGNC 1788
B06	UPFH0367304	ENST00000458126.6	CDKN3	ENSG00000100526	cyclin dependent kinase inhibitor 3 Source HGNC Symbol Acc HGNC 1791
B07	UPFH0097734	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B08	UPFH1132375	ENST00000343380.6	E2F1	ENSG00000101412	E2F transcription factor 1 Source HGNC Symbol Acc HGNC 3113
B09	UPFH1132380	ENST00000503392.1	EGF	ENSG00000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
B10	UPFH0614738	ENST00000376983.8	ELK1	ENSG00000126767	ELK1, ETS transcription factor Source HGNC Symbol Acc HGNC 3321
B11	UPFH1132388	ENST00000541774.5	ERBB2	ENSG00000141736	erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430
B12	UPFH0599047	ENST00000206249.7	ESR1	ENSG00000091831	estrogen receptor 1 Source HGNC Symbol Acc HGNC 3467
C01	UPFH0570530	ENST00000392668.8	ETS1	ENSG00000134954	ETS proto-oncogene 1, transcription factor Source HGNC Symbol Acc HGNC 3488
C02	UPFH0443291	ENST00000468189.5	FHIT	ENSG00000189283	fragile histidine triad Source HGNC Symbol Acc HGNC 3701
C03	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C04	UPFH0380377	ENST00000371116.3	FOXD3	ENSG00000187140	forkhead box D3 Source HGNC Symbol Acc HGNC 3804
C05	UPFH1132871	ENST00000643024.1	HGF	ENSG00000019991	hepatocyte growth factor Source HGNC Symbol Acc HGNC 4893
C06	UPFH0558457	ENST00000399849.4	HIC1	ENSG00000177374	HIC ZBTB transcriptional repressor 1 Source HGNC Symbol Acc HGNC 4909
C07	UPFH1132981	ENST00000311189.8	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
C08	UPFH0171959	ENST00000475834.2	IGF2R	ENSG00000197081	insulin like growth factor 2 receptor Source HGNC Symbol Acc HGNC 5467
C09	UPFH1132818	ENST00000381652.3	JAK2	ENSG00000096968	Janus kinase 2 Source HGNC Symbol Acc HGNC 6192
C10	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
		ENST00000302		ENSG00000	JunB proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH1132504	754.6	JUNB	171223	Acc HGNC 6205
C12	UPFH0044624	ENST00000252818.4	JUND	ENSG00000130522	JunD proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6206
D01	UPFH0545239	ENST00000288135.5	KIT	ENSG00000157404	KIT proto-oncogene receptor tyrosine kinase Source HGNC Symbol Acc HGNC 6342
D02	UPFH0242107	ENST00000644744.1	KITLG	ENSG00000049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
D03	UPFH0376060	ENST00000557334.5	KRAS	ENSG00000133703	KRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 6407
D04	UPFH1132538	ENST00000369026.3	MCL1	ENSG00000143384	MCL1, BCL2 family apoptosis regulator Source HGNC Symbol Acc HGNC 6943
D05	UPFH1132546	ENST00000393416.6	MDM2	ENSG00000135679	MDM2 proto-oncogene Source HGNC Symbol Acc HGNC 6973
D06	UPFH0327972	ENST00000377321.5	MEN1	ENSG00000133895	menin 1 Source HGNC Symbol Acc HGNC 7010
D07	UPFH1132915	ENST00000436117.2	MET	ENSG00000105976	MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029
D08	UPFH0403444	ENST00000306010.8	MGMT	ENSG00000170430	O-6-methylguanine-DNA methyltransferase Source HGNC Symbol Acc HGNC 7059
D09	UPFH0346001	ENST00000231790.6	MLH1	ENSG00000076242	mutL homolog 1 Source HGNC Symbol Acc HGNC 7127
D10	UPFH0497427	ENST00000311923.1	MOS	ENSG00000172680	MOS proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 7199
D11	UPFH0414191	ENST00000528015.5	MYB	ENSG00000118513	MYB proto-oncogene, transcription factor Source HGNC Symbol Acc HGNC 7545
D12	UPFH1132563	ENST00000517291.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E01	UPFH0096659	ENST00000281043.4	MYCN	ENSG00000134323	MYCN proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7559
E02	UPFH0158363	ENST00000431387.8	NF1	ENSG00000196712	neurofibromin 1 Source HGNC Symbol Acc HGNC 7765
E03	UPFH0114449	ENST00000361166.8	NF2	ENSG00000186575	neurofibromin 2 Source HGNC Symbol Acc HGNC 7773
E04	UPFH1132828	ENST00000226574.9	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E05	UPFH0444462	ENST00000216797.9	NFKBIA	ENSG00000100906	NFKB inhibitor alpha Source HGNC Symbol Acc HGNC 7797
E06	UPFH0189023	ENST00000369535.5	NRAS	ENSG00000213281	NRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 7989
E07	UPFH0596049	ENST00000531428.1	PIK3C2A	ENSG00000011405	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha Source HGNC Symbol Acc HGNC 8971
E08	UPFH0109251	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
E09	UPFH1125311	ENST00000268058.7	PML	ENSG00000140464	promyelocytic leukemia Source HGNC Symbol Acc HGNC 9113
E10	UPFH0607768	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
E11	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
E12	UPFH0431278	ENST00000394081.7	RARA	ENSG00000131759	retinoic acid receptor alpha Source HGNC Symbol Acc HGNC 9864
F01	UPFH0117232	ENST00000616212.4	RASSF1	ENSG00000068028	Ras association domain family member 1 Source HGNC Symbol Acc HGNC 9882
F02	UPFH0001483	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
F03	UPFH0559135	ENST00000295025.12	REL	ENSG00000162924	REL proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9954
F04	UPFH0197520	ENST00000615310.4	RET	ENSG00000165731	ret proto-oncogene Source HGNC Symbol Acc HGNC 9967
F05	UPFH0566015	ENST00000368507.7	ROS1	ENSG00000047936	ROS proto-oncogene 1, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 10261
F06	UPFH0023287	ENST00000437180.5	RUNX1	ENSG00000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
F07	UPFH0389770	ENST00000496967.1	RUNX3	ENSG00000020633	runt related transcription factor 3 Source HGNC Symbol Acc HGNC 10473
F08	UPFH0149745	ENST00000481009.1	S100A4	ENSG00000196154	S100 calcium binding protein A4 Source HGNC Symbol Acc HGNC 10494
F09	UPFH0604263	ENST00000382771.9	SERPINB5	ENSG00000206075	serpin family B member 5 Source HGNC Symbol Acc HGNC 8949
F10	UPFH0483697	ENST00000315994.6	SH3PXD2A	ENSG00000107957	SH3 and PX domains 2A Source HGNC Symbol Acc HGNC 23664

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0151428	ENST00000342988.7	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
F12	UPFH0308412	ENST00000472968.1	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
G01	UPFH0531262	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G02	UPFH0426138	ENST00000586358.5	STK11	ENSG00000118046	serine/threonine kinase 11 Source HGNC Symbol Acc HGNC 11389
G03	UPFH0193430	ENST00000221930.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G04	UPFH1132978	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G05	UPFH0565795	ENST00000269305.8	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G06	UPFH1132927	ENST00000354437.8	TP73	ENSG00000078900	tumor protein p73 Source HGNC Symbol Acc HGNC 12003
G07	UPFH0485358	ENST00000642745.1	TSC1	ENSG00000165699	TSC complex subunit 1 Source HGNC Symbol Acc HGNC 12362
G08	UPFH0295679	ENST00000256474.2	VHL	ENSG00000134086	von Hippel-Lindau tumor suppressor Source HGNC Symbol Acc HGNC 12687
G09	UPFH0122271	ENST00000527882.5	WT1	ENSG00000184937	Wilms tumor 1 Source HGNC Symbol Acc HGNC 12796
G10	UPFH0202210	ENST00000355860.7	WWOX	ENSG00000186153	WW domain containing oxidoreductase Source HGNC Symbol Acc HGNC 12799
G11	UPFH0485797	ENST00000262887.9	XRCC1	ENSG00000073050	X-ray repair cross complementing 1 Source HGNC Symbol Acc HGNC 12828
G12	UPFH0259813	ENST00000534247.1	ZHX2	ENSG00000178764	zinc fingers and homeoboxes 2 Source HGNC Symbol Acc HGNC 18513
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.