

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

Human PI3K-AKT Signaling Pathway

Cat. no. 249955 UPHS-058ZR

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	ADAR	AKT1	AKT2	AKT3	APC	BAD	BTX	CASP9	CCND1	CD14	CDC42	CDKN1B
B	CHUK	CSNK2A1	CTNNB1	EIF2AK2	EIF4B	EIF4E	EIF4EBP1	EIF4G1	ELK1	FASLG	FKBP1A	FOS
C	FOXO1	FOXO3	GJA1	GRB10	GRB2	GSK3B	HRAS	HSPB1	IGF1	IGF1R	ILK	IRAK1
D	IRS1	ITGB1	JUN	MAP2K1	MAPK1	MAPK14	MAPK3	MAPK8	MTCP1	MTOR	MYD88	NFKB1
E	NFKBIA	PABPC1	PAK1	PDGFRA	PDK1	PDK2	PDPK1	PIK3CA	PIK3CG	PIK3R1	PIK3R2	PRKCA
F	PRKCB	PRKCZ	PTEN	PTK2	PTPN11	RAC1	RAF1	RASA1	RBL2	RHEB	RHOA	RP56KA1
G	RPS6KB1	SHC1	SOS1	SRF	TCL1A	TIRAP	TLR4	TOLLIP	TSC1	TSC2	WASL	YWHAH
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	UPFH1132219	ENST00000647597.1	ADAR	ENSG00000160710	adenosine deaminase, RNA specific Source HGNC Symbol Acc HGNC 225
A02	UPFH0453992	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A03	UPFH0246744	ENST00000441941.6	AKT2	ENSG00000105221	AKT serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 392
A04	UPFH0198803	ENST00000336199.9	AKT3	ENSG00000117020	AKT serine/threonine kinase 3 Source HGNC Symbol Acc HGNC 393
A05	UPFH1132236	ENST00000257430.9	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A06	UPFH0437748	ENST00000394532.7	BAD	ENSG00000002330	BCL2 associated agonist of cell death Source HGNC Symbol Acc HGNC 936
A07	UPFH0378767	ENST00000308731.7	BTB	ENSG00000010671	Bruton tyrosine kinase Source HGNC Symbol Acc HGNC 1133
A08	UPFH0083593	ENST00000440484.1	CASP9	ENSG00000132906	caspase 9 Source HGNC Symbol Acc HGNC 1511
A09	UPFH0430337	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A10	UPFH0199310	ENST00000302014.11	CD14	ENSG00000170458	CD14 molecule Source HGNC Symbol Acc HGNC 1628
A11	UPFH0571108	ENST00000400259.5	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
A12	UPFH1132964	ENST00000228872.9	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
B01	UPFH1132316	ENST00000370397.8	CHUK	ENSG00000213341	conserved helix-loop-helix ubiquitous kinase Source HGNC Symbol Acc HGNC 1974
B02	UPFH0055149	ENST00000645249.1	CSNK2A1	ENSG00000101266	casein kinase 2 alpha 1 Source HGNC Symbol Acc HGNC 2457
B03	UPFH0097734	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B04	UPFH0317953	ENST00000395127.6	EIF2AK2	ENSG00000055332	eukaryotic translation initiation factor 2 alpha kinase 2 Source HGNC Symbol Acc HGNC 9437
B05	UPFH0228907	ENST0000055025.1	EIF4B	ENSG00000063046	eukaryotic translation initiation factor 4B Source HGNC Symbol Acc HGNC 3285
B06	UPFH0008084	ENST00000515638.5	EIF4E	ENSG00000151247	eukaryotic translation initiation factor 4E Source HGNC Symbol Acc HGNC 3287
B07	UPFH0096211	ENST00000520657.1	EIF4EBP1	ENSG00000187840	eukaryotic translation initiation factor 4E binding protein 1 Source HGNC Symbol Acc HGNC 3288
B08	UPFH0049817	ENST00000342981.8	EIF4G1	ENSG00000114867	eukaryotic translation initiation factor 4 gamma 1 Source HGNC Symbol Acc HGNC 3296
B09	UPFH0614738	ENST00000376983.8	ELK1	ENSG00000126767	ELK1, ETS transcription factor Source HGNC Symbol Acc HGNC 3321
B10	UPFH1132396	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
B11	UPFH0317247	ENST00000474657.5	FKBP1A	ENSG00000088832	FKBP prolyl isomerase 1A Source HGNC Symbol Acc HGNC 3711
B12	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C01	UPFH0401417	ENST00000379561.6	FOXO1	ENSG00000150907	forkhead box O1 Source HGNC Symbol Acc HGNC 3819
C02	UPFH0442611	ENST00000540898.1	FOXO3	ENSG00000118689	forkhead box O3 Source HGNC Symbol Acc HGNC 3821
C03	UPFH0199748	ENST00000649003.1	GJA1	ENSG00000152661	gap junction protein alpha 1 Source HGNC Symbol Acc HGNC 4274
C04	UPFH0307295	ENST00000357271.9	GRB10	ENSG00000106070	growth factor receptor bound protein 10 Source HGNC Symbol Acc HGNC 4564
C05	UPFH1132426	ENST00000392564.5	GRB2	ENSG00000177885	growth factor receptor bound protein 2 Source HGNC Symbol Acc HGNC 4566
C06	UPFH0470775	ENST00000316626.5	GSK3B	ENSG00000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
C07	UPFH1132981	ENST00000311189.8	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
C08	UPFH1139042	ENST00000248553.7	HSPB1	ENSG00000106211	heat shock protein family B (small) member 1 Source HGNC Symbol Acc HGNC 5246
C09	UPFH0229443	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
C10	UPFH0237955	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
		ENST00000299		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0412404	421.8	ILK	166333	integrin linked kinase Source HGNC Symbol Acc HGNC 6040
C12	UPFH1132489	ENST00000393687.6	IRAK1	ENSG00000184216	interleukin 1 receptor associated kinase 1 Source HGNC Symbol Acc HGNC 6112
D01	UPFH0592509	ENST00000305123.5	IRS1	ENSG00000169047	insulin receptor substrate 1 Source HGNC Symbol Acc HGNC 6125
D02	UPFH1132498	ENST00000423113.5	ITGB1	ENSG00000150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
D03	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D04	UPFH1132932	ENST00000307102.9	MAP2K1	ENSG00000169032	mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840
D05	UPFH0366815	ENST00000215832.10	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
D06	UPFH0068247	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
D07	UPFH1132534	ENST00000481230.1	MAPK3	ENSG00000102882	mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877
D08	UPFH1132535	ENST00000374179.8	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
D09	UPFH1147395	ENST00000369476.8	MTCP1	ENSG00000214827	mature T cell proliferation 1 Source HGNC Symbol Acc HGNC 7423
D10	UPFH1132560	ENST00000361445.8	MTOR	ENSG00000198793	mechanistic target of rapamycin kinase Source HGNC Symbol Acc HGNC 3942
D11	UPFH1125930	ENST00000648963.1	MYD88	ENSG00000172936	MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562
D12	UPFH1132828	ENST00000226574.9	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E01	UPFH0444462	ENST00000216797.9	NFKBIA	ENSG00000100906	NFKB inhibitor alpha Source HGNC Symbol Acc HGNC 7797
E02	UPFH1148284	ENST00000517403.5	PABPC1	ENSG00000070756	poly(A) binding protein cytoplasmic 1 Source HGNC Symbol Acc HGNC 8554
E03	UPFH0310946	ENST00000356341.7	PAK1	ENSG00000149269	p21 (RAC1) activated kinase 1 Source HGNC Symbol Acc HGNC 8590
E04	UPFH1132609	ENST00000508170.5	PDGFRA	ENSG00000134853	platelet derived growth factor receptor alpha Source HGNC Symbol Acc HGNC 8803
E05	UPFH0435270	ENST00000410055.5	PDK1	ENSG00000152256	pyruvate dehydrogenase kinase 1 Source HGNC Symbol Acc HGNC 8809
E06	UPFH0118282	ENST00000503176.5	PDK2	ENSG00000005882	pyruvate dehydrogenase kinase 2 Source HGNC Symbol Acc HGNC 8810
E07	UPFH0104991	ENST00000389224.7	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 Source HGNC Symbol Acc HGNC 8816
E08	UPFH0109251	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
E09	UPFH0562261	ENST00000473541.5	PIK3CG	ENSG00000105851	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source HGNC Symbol Acc HGNC 8978
E10	UPFH0549122	ENST00000521381.6	PIK3R1	ENSG00000145675	phosphoinositide-3-kinase regulatory subunit 1 Source HGNC Symbol Acc HGNC 8979
E11	UPFH0463753	ENST00000617130.4	PIK3R2	ENSG00000105647	phosphoinositide-3-kinase regulatory subunit 2 Source HGNC Symbol Acc HGNC 8980
E12	UPFH0607768	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
F01	UPFH0529104	ENST00000646168.1	PRKCB	ENSG00000166501	protein kinase C beta Source HGNC Symbol Acc HGNC 9395
F02	UPFH1132634	ENST00000378567.8	PRKCZ	ENSG00000067606	protein kinase C zeta Source HGNC Symbol Acc HGNC 9412
F03	UPFH1132982	ENST00000371953.8	PTEN	ENSG00000171862	phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588
F04	UPFH1132643	ENST00000522684.5	PTK2	ENSG00000169398	protein tyrosine kinase 2 Source HGNC Symbol Acc HGNC 9611
F05	UPFH0249323	ENST00000530818.1	PTPN11	ENSG00000179295	protein tyrosine phosphatase, non-receptor type 11 Source HGNC Symbol Acc HGNC 9644
F06	UPFH1132648	ENST00000348035.9	RAC1	ENSG00000136238	Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801
F07	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
F08	UPFH0086954	ENST00000509953.1	RASA1	ENSG00000145715	RAS p21 protein activator 1 Source HGNC Symbol Acc HGNC 9871
F09	UPFH1132654	ENST00000544405.6	RBL2	ENSG00000103479	RB transcriptional corepressor like 2 Source HGNC Symbol Acc HGNC 9894
F10	UPFH0068695	ENST00000472642.5	RHEB	ENSG00000106615	Ras homolog, mTORC1 binding Source HGNC Symbol Acc HGNC 10011

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH1132657	ENST00000445425.4	RHOA	ENSG00000067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
F12	UPFH0220518	ENST00000374168.7	RPS6KA1	ENSG000000117676	ribosomal protein S6 kinase A1 Source HGNC Symbol Acc HGNC 10430
G01	UPFH1132665	ENST00000406116.7	RPS6KB1	ENSG000000108443	ribosomal protein S6 kinase B1 Source HGNC Symbol Acc HGNC 10436
G02	UPFH0141239	ENST00000368449.8	SHC1	ENSG000000160691	SHC adaptor protein 1 Source HGNC Symbol Acc HGNC 10840
G03	UPFH0313184	ENST00000395038.6	SOS1	ENSG000000115904	SOS Ras/Rac guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 11187
G04	UPFH0179284	ENST00000265354.6	SRF	ENSG000000112658	serum response factor Source HGNC Symbol Acc HGNC 11291
G05	UPFH0040211	ENST00000556450.5	TCL1A	ENSG000000100721	T cell leukemia/lymphoma 1A Source NCBI gene Acc 8115
G06	UPFH0331111	ENST00000392680.6	TIRAP	ENSG000000150455	TIR domain containing adaptor protein Source HGNC Symbol Acc HGNC 17192
G07	UPFH1132859	ENST00000645071.1	TLR4	ENSG000000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G08	UPFH0007721	ENST00000528719.1	TOLLIP	ENSG000000078902	toll interacting protein Source HGNC Symbol Acc HGNC 16476
G09	UPFH0485358	ENST00000642745.1	TSC1	ENSG000000165699	TSC complex subunit 1 Source HGNC Symbol Acc HGNC 12362
G10	UPFH0065391	ENST00000643088.1	TSC2	ENSG000000103197	TSC complex subunit 2 Source HGNC Symbol Acc HGNC 12363
G11	UPFH0499368	ENST00000223023.5	WASL	ENSG000000106299	Wiskott-Aldrich syndrome like Source HGNC Symbol Acc HGNC 12735
G12	UPFH0090008	ENST00000248975.6	YWHAH	ENSG000000128245	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein eta Source HGNC Symbol Acc HGNC 12853
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG000000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG000000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG000000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG000000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG000000089157	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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 μ l QuantiNova Probe RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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