

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

Rat PI3K-AKT Signaling Pathway

Cat. no. 249955 UPRN-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	Btk	Casp9	Ccnd1	Cd14	Cdc42	Cdkn1b
B	Chuk	Cank2a1	Cttnb1	Eif2ak2	Eif4b	Eif4e	Eif4ebp1	Eif4g1	Faslg	Fkbp1a	Fos	Foxg1
C	Foxo3	Gja1	Grb10	Grb2	Gsk3b	Hras	Hspb1	Igf1	Igf1r	Ilk	Irak1	Irs1
D	Ilgb1	Jun	Kcnh8	Map2k1	Mapk1	Mapk14	Mapk3	Mapk8	Mitp1	Mtor	Myd88	Nfkb1
E	Nfkbia	Patpcl	Pak1	Pdgfra	Pdk1	Pdk2	Pdpr1	Pik3ca	Pik3cg	Pik3r1	Pik3r2	Prkca
F	Prkcb	Prkcz	Pten	Plk2	Ptpn11	Rac1	Raf1	Rasa1	Rb12	Rheb	Rhoa	Rps6ka1
G	Rps6kb1	Shc1	Sos1	Srf	Tcl1a	Tirap	Tlr4	Tollip	Tsc1	Tsc2	Wasl	Ywhah
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1097474	ENSRNOT00000028181.5	Adar	ENSRNOG0000020744	adenosine deaminase, RNA-specific Source RGD Symbol Acc 71099
A02	UPFR1083196	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A03	UPFR1088137	ENSRNOT00000025303.3	Akt2	ENSRNOG0000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A04	UPFR1105050	ENSRNOT00000085648.1	Akt3	ENSRNOG0000021497	AKT serine/threonine kinase 3 Source RGD Symbol Acc 62390
A05	UPFR1090312	ENSRNOT00000090264.1	Apc	ENSRNOG0000020423	APC, WNT signaling pathway regulator Source RGD Symbol Acc 2123
A06	UPFR1109796	ENSRNOT00000028712.5	Bad	ENSRNOG0000021147	BCL2-associated agonist of cell death Source RGD Symbol Acc 620103
A07	UPFR1121716	ENSRNOT00000077547.1	Blk	ENSRNOG0000052407	Bruton tyrosine kinase Source RGD Symbol Acc 1359683
A08	UPFR1054782	ENSRNOT00000085378.1	Casp9	ENSRNOG0000012944	caspase 9 Source RGD Symbol Acc 61867
A09	UPFR1042457	ENSRNOT00000088588.1	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A10	UPFR1097993	ENSRNOT00000023977.6	Cd14	ENSRNOG0000017819	CD14 molecule Source RGD Symbol Acc 620588
A11	UPFR1103160	ENSRNOT00000018118.5	Cdc42	ENSRNOG0000013536	cell division cycle 42 Source RGD Symbol Acc 71043
A12	UPFR1069360	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B01	UPFR1110725	ENSRNOT00000030782.4	Chuk	ENSRNOG0000022485	conserved helix-loop-helix ubiquitous kinase Source RGD Symbol Acc 1306661
B02	UPFR1071105	ENSRNOT00000007558.5	Csnk2a1	ENSRNOG0000005276	casein kinase 2 alpha 1 Source RGD Symbol Acc 621663
B03	UPFR1057605	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B04	UPFR1062762	ENSRNOT00000072810.2	Eif2ak2	ENSRNOG0000048315	eukaryotic translation initiation factor 2-alpha kinase 2 Source RGD Symbol Acc 3402
B05	UPFR1097377	ENSRNOT00000014033.5	Eif4b	ENSRNOG0000010103	eukaryotic translation initiation factor 4B Source RGD Symbol Acc 1306479
B06	UPFR1096247	ENSRNOT00000090526.2	Eif4e	ENSRNOG0000052343	eukaryotic translation initiation factor 4E Source RGD Symbol Acc 69647
B07	UPFR1083445	ENSRNOT00000016885.5	Eif4ebp1	ENSRNOG0000012582	eukaryotic translation initiation factor 4E binding protein 1 Source RGD Symbol Acc 620259
B08	UPFR1083505	ENSRNOT00000041777.6	Eif4g1	ENSRNOG0000001738	eukaryotic translation initiation factor 4 gamma, 1 Source RGD Symbol Acc 1306144
B09	UPFR1108356	ENSRNOT00000003998.2	Faslg	ENSRNOG0000002978	Fas ligand Source RGD Symbol Acc 3880
B10	UPFR1119432	ENSRNOT00000012608.4	Fkbp1a	ENSRNOG0000008822	FKBP prolyl isomerase 1A Source RGD Symbol Acc 2617
B11	UPFR1045359	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
B12	UPFR1034162	ENSRNOT00000075349.1	Foxg1	ENSRNOG0000047891	forkhead box G1 Source RGD Symbol Acc 2619
C01	UPFR1095067	ENSRNOT00000000327.5	Foxo3	ENSRNOG0000000299	forkhead box O3 Source RGD Symbol Acc 1309196
C02	UPFR1122020	ENSRNOT00000001054.4	Gja1	ENSRNOG0000000805	gap junction protein, alpha 1 Source RGD Symbol Acc 2690
C03	UPFR1029982	ENSRNOT00000044726.4	Grb10	ENSRNOG0000004290	growth factor receptor bound protein 10 Source RGD Symbol Acc 1566234
C04	UPFR1087543	ENSRNOT00000005347.5	Grb2	ENSRNOG0000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
C05	UPFR1109626	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C06	UPFR1076419	ENSRNOT00000022363.6	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
C07	UPFR1030516	ENSRNOT00000031555.5	Hspb1	ENSRNOG0000023546	heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306
C08	UPFR1050099	ENSRNOT00000038780.6	Igf1	ENSRNOG0000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
C09	UPFR1018620	ENSRNOT00000019267.6	Igf1r	ENSRNOG0000014187	insulin-like growth factor 1 receptor Source RGD Symbol Acc 2869
C10	UPFR1118308	ENSRNOT00000025906.4	Ilk	ENSRNOG0000018993	integrin-linked kinase Source RGD Symbol Acc 620063
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1054336	092207.1	Irak1	000060869	interleukin-1 receptor-associated kinase 1 Source RGD Symbol Acc 1563841
C12	UPFR1099858	ENSRNOT00000019579.5	Irs1	ENSRNOG0000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D01	UPFR1091655	ENSRNOT00000014785.5	Itgb1	ENSRNOG0000010966	integrin subunit beta 1 Source RGD Symbol Acc 2927
D02	UPFR1037970	ENSRNOT00000011731.3	Jun	ENSRNOG0000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
D03	UPFR1013403	ENSRNOT000000087331.1	Kcnh8	ENSRNOG0000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
D04	UPFR1053192	ENSRNOT00000013933.6	Map2k1	ENSRNOG0000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
D05	UPFR1055882	ENSRNOT00000002533.7	Mapk1	ENSRNOG0000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
D06	UPFR1036984	ENSRNOT000000000617.8	Mapk14	ENSRNOG0000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
D07	UPFR1049954	ENSRNOT000000087625.1	Mapk3	ENSRNOG0000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
D08	UPFR1048766	ENSRNOT000000065216.3	Mapk8	ENSRNOG0000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
D09	UPFR1107703	ENSRNOT000000033663.6	Mtcf1	ENSRNOG0000024071	mature T-cell proliferation 1 Source RGD Symbol Acc 1561352
D10	UPFR1112219	ENSRNOT000000080751.1	Mtor	ENSRNOG0000009615	mechanistic target of rapamycin kinase Source RGD Symbol Acc 68371
D11	UPFR1120879	ENSRNOT000000018341.5	Myd88	ENSRNOG0000013634	MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043
D12	UPFR1116688	ENSRNOT000000036838.4	Nfkb1	ENSRNOG0000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E01	UPFR1024664	ENSRNOT000000009894.6	Nfkbia	ENSRNOG0000007390	NFkB inhibitor alpha Source RGD Symbol Acc 3171
E02	UPFR1109482	ENSRNOT000000012775.7	Pabpc1	ENSRNOG0000008639	poly(A) binding protein, cytoplasmic 1 Source RGD Symbol Acc 619838
E03	UPFR1066459	ENSRNOT000000091952.1	Pak1	ENSRNOG0000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
E04	UPFR1089489	ENSRNOT00000003077.5	Pdgfra	ENSRNOG0000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E05	UPFR1014167	ENSRNOT00000002072.6	Pdk1	ENSRNOG0000001517	pyruvate dehydrogenase kinase 1 Source RGD Symbol Acc 69427
E06	UPFR1067189	ENSRNOT000000005641.6	Pdk2	ENSRNOG0000004172	pyruvate dehydrogenase kinase 2 Source RGD Symbol Acc 69428
E07	UPFR1093188	ENSRNOT000000067660.1	Pdpk1	ENSRNOG0000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
E08	UPFR1035210	ENSRNOT000000083720.1	Pik3ca	ENSRNOG0000056371	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha Source RGD Symbol Acc 620916
E09	UPFR1091290	ENSRNOT000000012487.5	Pik3cg	ENSRNOG0000009385	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma Source RGD Symbol Acc 1306468
E10	UPFR1035231	ENSRNOT000000075057.1	Pik3r1	ENSRNOG0000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
E11	UPFR1126563	ENSRNOT000000026210.5	Pik3r2	ENSRNOG0000019228	phosphoinositide-3-kinase regulatory subunit 2 Source RGD Symbol Acc 68341
E12	UPFR1034906	ENSRNOT000000004699.8	Prkca	ENSRNOG0000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F01	UPFR1083743	ENSRNOT000000016418.6	Prkcb	ENSRNOG0000012061	protein kinase C, beta Source RGD Symbol Acc 3396
F02	UPFR1112897	ENSRNOT000000021285.6	Prkcz	ENSRNOG0000015480	protein kinase C, zeta Source RGD Symbol Acc 3399
F03	UPFR1043890	ENSRNOT000000028143.3	Pten	ENSRNOG0000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
F04	UPFR1115915	ENSRNOT000000011219.6	Plk2	ENSRNOG0000007916	protein tyrosine kinase 2 Source RGD Symbol Acc 3443
F05	UPFR1116105	ENSRNOT000000046323.5	Ptfn11	ENSRNOG0000030124	protein tyrosine phosphatase, non-receptor type 11 Source RGD Symbol Acc 3447
F06	UPFR1019271	ENSRNOT000000001417.5	Rac1	ENSRNOG0000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
F07	UPFR1087799	ENSRNOT000000013831.6	Raf1	ENSRNOG0000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
F08	UPFR1085068	ENSRNOT000000046251.2	Rasa1	ENSRNOG0000029185	RAS p21 protein activator 1 Source RGD Symbol Acc 3537
F09	UPFR1077781	ENSRNOT000000017361.3	Rbl2	ENSRNOG0000012153	RB transcriptional corepressor like 2 Source RGD Symbol Acc 3541
F10	UPFR1054131	ENSRNOT000000071737.2	Rheb	ENSRNOG0000050578	Ras homolog, mTORC1 binding Source RGD Symbol Acc 621840

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1119707	ENSRNOT00000071664.2	Rhoa	ENSRNOG0000050519	ras homolog family member A Source RGD Symbol Acc 619921
F12	UPFR1100992	ENSRNOT00000068634.3	Rps6ka1	ENSRNOG0000042411	ribosomal protein S6 kinase A1 Source RGD Symbol Acc 620675
G01	UPFR1107808	ENSRNOT0000005226.4	Rps6kb1	ENSRNOG0000003919	ribosomal protein S6 kinase B1 Source RGD Symbol Acc 620683
G02	UPFR1103707	ENSRNOT00000028038.6	Shc1	ENSRNOG0000020657	SHC adaptor protein 1 Source RGD Symbol Acc 620446
G03	UPFR1051335	ENSRNOT00000009359.7	Sos1	ENSRNOG0000007106	SOS Ras/Rac guanine nucleotide exchange factor 1 Source RGD Symbol Acc 1310949
G04	UPFR1072279	ENSRNOT00000061430.3	Srf	ENSRNOG0000018232	serum response factor Source RGD Symbol Acc 1559787
G05	UPFR1069630	ENSRNOT00000029346.4	Tcl1a	ENSRNOG0000025233	T-cell leukemia/lymphoma 1A Source RGD Symbol Acc 1594686
G06	UPFR1091338	ENSRNOT00000038312.5	Tirap	ENSRNOG0000021420	TIR domain containing adaptor protein Source RGD Symbol Acc 1595496
G07	UPFR1020675	ENSRNOT00000014020.3	Tlr4	ENSRNOG0000010522	toll-like receptor 4 Source RGD Symbol Acc 3870
G08	UPFR1079309	ENSRNOT00000046344.3	Tollip	ENSRNOG0000019861	toll interacting protein Source RGD Symbol Acc 1304676
G09	UPFR1044594	ENSRNOT00000016904.3	Tsc1	ENSRNOG0000011470	TSC complex subunit 1 Source RGD Symbol Acc 620124
G10	UPFR1091158	ENSRNOT00000052138.6	Tsc2	ENSRNOG0000011375	TSC complex subunit 2 Source RGD Symbol Acc 3908
G11	UPFR1073976	ENSRNOT00000009261.6	Wasl	ENSRNOG0000006975	Wiskott-Aldrich syndrome-like Source RGD Symbol Acc 735144
G12	UPFR1042254	ENSRNOT00000085735.1	Ywhah	ENSRNOG0000055471	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, eta Source RGD Symbol Acc 3978
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat 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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