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

Rat mTOR Signaling

Cat. no. 249955 UPRN-098ZR

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	Akt1	Akt1s1	Akt2	Akt3	Cab39	Cab39l	Rps6ka4	Cdc42	Chuk	Ddit4	Ddit4l	Eif4b
B	Eif4e	Eif4ebp1	Eif4ebp2	Fkbp1a	Fkbp8	Gsk3b	Hif1a	Hras	Hspa4	Igf1	Igfbp3	Ikbkb
C	Ilk	Ins2	Insr	Irs1	Kras	Mapk1	Mapk3	Mapkap1	Mlst8	Mtor	Myo1c	Nras
D	Pdpk1	Pik3c3	Pik3ca	Pik3cb	Pik3cd	Pik3cg	Pik3r1	Pik3r2	Pld1	Pld2	LOC103694903	Ppp2r2b
E	Ptpa	Prkaa1	Prkaa2	Prkab1	Prkab2	Kmt2d	Prkag2	Prkag3	Prkca	Prkcb	Prkce	Prkcg
F	Pten	Rheb	Rhoa	LOC100911372	Rps6ka1	Rps6ka2	Rps6ka5	Rps6kb1	Rps6kb2	Rptor	Rraga	LOC108348096
G	Rragc	Rragd	Sgk1	Stk11	Tp53	Tsc1	Tsc2	Ulk1	Vegfa	Vegfb	Vegfc	Ywhaq
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	UPFR1083196	ENSRNOT00000031164.3	Akt1	ENSRNOG00000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A02	UPFR1025397	ENSRNOT00000027478.6	Akt1s1	ENSRNOG00000020289	AKT1 substrate 1 Source RGD Symbol Acc 1312049
A03	UPFR1088137	ENSRNOT00000025303.3	Akt2	ENSRNOG00000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A04	UPFR1105050	ENSRNOT00000085648.1	Akt3	ENSRNOG00000021497	AKT serine/threonine kinase 3 Source RGD Symbol Acc 62390
A05	UPFR1096274	ENSRNOT00000085332.1	Cab39	ENSRNOG00000017297	calcium binding protein 39 Source RGD Symbol Acc 1306390
A06	UPFR1115464	ENSRNOT00000084505.1	Cab39l	ENSRNOG00000011603	calcium binding protein 39-like Source RGD Symbol Acc 1308945
A07	UPFR1085285	ENSRNOT00000028678.7	Rps6ka4	ENSRNOG00000021117	ribosomal protein S6 kinase A4 Source RGD Symbol Acc 1307277
A08	UPFR1103160	ENSRNOT00000018118.5	Cdc42	ENSRNOG00000013536	cell division cycle 42 Source RGD Symbol Acc 71043
A09	UPFR1110725	ENSRNOT00000030782.4	Chuk	ENSRNOG00000022485	conserved helix-loop-helix ubiquitous kinase Source RGD Symbol Acc 1306661
A10	UPFR1042623	ENSRNOT00000085026.1	Ddit4	ENSRNOG00000057078	DNA-damage-inducible transcript 4 Source RGD Symbol Acc 621731
A11	UPFR1023502	ENSRNOT00000013661.4	Ddit4l	ENSRNOG00000010047	DNA-damage-inducible transcript 4-like 2 Source RGD Symbol Acc 619738
A12	UPFR1097377	ENSRNOT00000014033.5	Eif4b	ENSRNOG00000010103	eukaryotic translation initiation factor 4B Source RGD Symbol Acc 1306479
B01	UPFR1096247	ENSRNOT00000090526.2	Eif4e	ENSRNOG00000052343	eukaryotic translation initiation factor 4E Source RGD Symbol Acc 69647
B02	UPFR1083445	ENSRNOT00000016885.5	Eif4ebp1	ENSRNOG00000012582	eukaryotic translation initiation factor 4E binding protein 1 Source RGD Symbol Acc 620259
B03	UPFR1034074	ENSRNOT00000082448.1	Eif4ebp2	ENSRNOG00000055391	eukaryotic translation initiation factor 4E binding protein 2 Source RGD Symbol Acc 1310824
B04	UPFR1119432	ENSRNOT00000012608.4	Fkbp1a	ENSRNOG00000008822	FKBP prolyl isomerase 1A Source RGD Symbol Acc 2617
B05	UPFR1091131	ENSRNOT00000077756.1	Fkbp8	ENSRNOG00000058359	FKBP prolyl isomerase 8 Source RGD Symbol Acc 1308670
B06	UPFR1109626	ENSRNOT00000077612.1	Gsk3b	ENSRNOG00000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
B07	UPFR1061095	ENSRNOT00000049725.3	Hif1a	ENSRNOG00000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
B08	UPFR1076419	ENSRNOT00000022363.6	Hras	ENSRNOG00000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
B09	UPFR1042317	ENSRNOT00000023628.3	Hspa4	ENSRNOG00000016596	heat shock protein family A member 4 Source RGD Symbol Acc 628878
B10	UPFR1050099	ENSRNOT00000038780.6	Igf1	ENSRNOG00000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
B11	UPFR1013429	ENSRNOT00000088355.1	Igfbp3	ENSRNOG00000061910	insulin-like growth factor binding protein 3 Source RGD Symbol Acc 2874
B12	UPFR1104220	ENSRNOT00000025851.4	Ikbkb	ENSRNOG00000019073	inhibitor of nuclear factor kappa B kinase subunit beta Source RGD Symbol Acc 621375
C01	UPFR1118308	ENSRNOT00000025906.4	Ilk	ENSRNOG00000018993	integrin-linked kinase Source RGD Symbol Acc 620063
C02	UPFR1114751	ENSRNOT00000027656.3	Ins2	ENSRNOG00000020405	insulin 2 Source RGD Symbol Acc 2916
C03	UPFR1014864	ENSRNOT00000041155.3	Insr	ENSRNOG00000029986	insulin receptor Source RGD Symbol Acc 2917
C04	UPFR1099858	ENSRNOT00000019579.5	Irs1	ENSRNOG00000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
C05	UPFR1088461	ENSRNOT00000012588.4	Kras	ENSRNOG00000009338	KRAS proto-oncogene, GTPase Source RGD Symbol Acc 2981
C06	UPFR1055882	ENSRNOT00000002533.7	Mapk1	ENSRNOG00000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
C07	UPFR1049954	ENSRNOT00000087625.1	Mapk3	ENSRNOG00000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
C08	UPFR1029724	ENSRNOT00000023889.6	Mapkap1	ENSRNOG00000017583	mitogen-activated protein kinase associated protein 1 Source RGD Symbol Acc 1305363
C09	UPFR1029416	ENSRNOT00000014269.4	Mlst8	ENSRNOG00000009667	MTOR associated protein, LST8 homolog Source RGD Symbol Acc 69242
C10	UPFR1112219	ENSRNOT00000080751.1	Mtor	ENSRNOG00000009615	mechanistic target of rapamycin kinase Source RGD Symbol Acc 68371
		ENSRNOT00000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1027884	036666.5	Myo1c	000004072	myosin 1C Source RGD Symbol Acc 620443
C12	UPFR1038224	ENSRNOT00000039572.3	Nras	ENSRNOG00000023079	NRAS proto-oncogene, GTPase Source RGD Symbol Acc 3205
D01	UPFR1093188	ENSRNOT00000067660.1	Pdpk1	ENSRNOG00000006136	3-phosphoinositide dependent protein kinase-1 Source RGD Symbol Acc 620307
D02	UPFR1079473	ENSRNOT00000066816.2	Pik3c3	ENSRNOG00000017840	phosphatidylinositol 3-kinase, catalytic subunit type 3 Source RGD Symbol Acc 620899
D03	UPFR1035210	ENSRNOT00000083720.1	Pik3ca	ENSRNOG00000056371	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha Source RGD Symbol Acc 620916
D04	UPFR1105369	ENSRNOT00000022179.4	Pik3cb	ENSRNOG00000016384	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit beta Source RGD Symbol Acc 620917
D05	UPFR1091879	ENSRNOT00000066179.2	Pik3cd	ENSRNOG00000016846	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta Source RGD Symbol Acc 1310990
D06	UPFR1091290	ENSRNOT00000012487.5	Pik3cg	ENSRNOG00000009385	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma Source RGD Symbol Acc 1306468
D07	UPFR1035231	ENSRNOT00000075057.1	Pik3r1	ENSRNOG00000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
D08	UPFR1126563	ENSRNOT00000026210.5	Pik3r2	ENSRNOG00000019228	phosphoinositide-3-kinase regulatory subunit 2 Source RGD Symbol Acc 68341
D09	UPFR1104627	ENSRNOT00000039308.4	Pld1	ENSRNOG00000028156	phospholipase D1 Source RGD Symbol Acc 3349
D10	UPFR1114011	ENSRNOT00000056998.4	Pld2	ENSRNOG00000019604	phospholipase D2 Source RGD Symbol Acc 3350
D11	UPFR1111771	ENSRNOT00000007621.5	LOC103694903	ENSRNOG00000005389	serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform Source RGD Symbol Acc 9257421
D12	UPFR1035056	ENSRNOT00000041188.4	Ppp2r2b	ENSRNOG00000018851	protein phosphatase 2, regulatory subunit B, beta Source RGD Symbol Acc 631441
E01	UPFR1036048	ENSRNOT00000024914.5	Ptpa	ENSRNOG00000018457	protein phosphatase 2 phosphatase activator Source RGD Symbol Acc 1308354
E02	UPFR1073875	ENSRNOT00000017626.5	Prkaa1	ENSRNOG00000012799	protein kinase AMP-activated catalytic subunit alpha 1 Source RGD Symbol Acc 3387
E03	UPFR1026650	ENSRNOT00000010680.3	Prkaa2	ENSRNOG00000007706	protein kinase AMP-activated catalytic subunit alpha 2 Source RGD Symbol Acc 620893
E04	UPFR1066685	ENSRNOT00000001508.3	Prkab1	ENSRNOG00000001142	protein kinase AMP-activated non-catalytic subunit beta 1 Source RGD Symbol Acc 71057
E05	UPFR1070754	ENSRNOT00000086588.1	Prkab2	ENSRNOG00000018166	protein kinase AMP-activated non-catalytic subunit beta 2 Source RGD Symbol Acc 620905
E06	UPFR1057561	ENSRNOT00000077502.1	Kmt2d	ENSRNOG00000061499	protein kinase AMP-activated non-catalytic subunit gamma 1 Source RGD Symbol Acc 3388
E07	UPFR1041033	ENSRNOT00000067183.3	Prkag2	ENSRNOG00000009085	protein kinase AMP-activated non-catalytic subunit gamma 2 Source RGD Symbol Acc 727782
E08	UPFR1119563	ENSRNOT00000023365.5	Prkag3	ENSRNOG00000017248	protein kinase AMP-activated non-catalytic subunit gamma 3 Source RGD Symbol Acc 1308698
E09	UPFR1034906	ENSRNOT00000004699.8	Prkca	ENSRNOG00000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
E10	UPFR1083743	ENSRNOT00000016418.6	Prkcb	ENSRNOG00000012061	protein kinase C, beta Source RGD Symbol Acc 3396
E11	UPFR1107353	ENSRNOT00000020959.7	Prkce	ENSRNOG00000015603	protein kinase C, epsilon Source RGD Symbol Acc 61925
E12	UPFR1032334	ENSRNOT00000080032.1	Prkcg	ENSRNOG00000054371	protein kinase C, gamma Source RGD Symbol Acc 3397
F01	UPFR1043890	ENSRNOT00000028143.3	Pten	ENSRNOG00000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
F02	UPFR1054131	ENSRNOT00000071737.2	Rheb	ENSRNOG00000050578	Ras homolog, mTORC1 binding Source RGD Symbol Acc 621840
F03	UPFR1119707	ENSRNOT00000071664.2	Rhoa	ENSRNOG00000050519	ras homolog family member A Source RGD Symbol Acc 619921
F04	UPFR1121746	ENSRNOT00000073270.2	LOC100911372	ENSRNOG00000049025	40S ribosomal protein S6-like Source RGD Symbol Acc 6493116
F05	UPFR1100992	ENSRNOT00000068634.3	Rps6ka1	ENSRNOG00000042411	ribosomal protein S6 kinase A1 Source RGD Symbol Acc 620675
F06	UPFR1045922	ENSRNOT00000017809.5	Rps6ka2	ENSRNOG00000013194	ribosomal protein S6 kinase A2 Source RGD Symbol Acc 620676
F07	UPFR1013406	ENSRNOT00000091693.1	Rps6ka5	ENSRNOG00000004362	ribosomal protein S6 kinase A5 Source RGD Symbol Acc 1308336
F08	UPFR1107808	ENSRNOT00000005226.4	Rps6kb1	ENSRNOG00000003919	ribosomal protein S6 kinase B1 Source RGD Symbol Acc 620683
F09	UPFR1043658	ENSRNOT00000083204.1	Rps6kb2	ENSRNOG00000021689	ribosomal protein S6 kinase B2 Source RGD Symbol Acc 1305144
F10	UPFR1015027	ENSRNOT00000005337.6	Rptor	ENSRNOG00000003821	regulatory associated protein of MTOR, complex 1 Source RGD Symbol Acc 1311784

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1035568	ENSRNOT00000009225.6	Rraga	ENSRNOG00000007051	Ras-related GTP binding A Source RGD Symbol Acc 619804
F12	UPFR1029377	ENSRNOT00000004235.6	LOC108348096	ENSRNOG00000003160	Ras-related GTP binding B Source RGD Symbol Acc 619805
G01	UPFR1062391	ENSRNOT00000023514.5	Rragc	ENSRNOG00000017426	Ras-related GTP binding C Source RGD Symbol Acc 1311760
G02	UPFR1066372	ENSRNOT00000068028.2	Rragd	ENSRNOG00000007331	Ras-related GTP binding D Source RGD Symbol Acc 1310007
G03	UPFR1039504	ENSRNOT00000061157.3	Sgk1	ENSRNOG00000011815	serum/glucocorticoid regulated kinase 1 Source RGD Symbol Acc 3668
G04	UPFR1113401	ENSRNOT00000060683.3	Stk11	ENSRNOG00000014287	serine/threonine kinase 11 Source RGD Symbol Acc 1308653
G05	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG00000010756	tumor protein p53 Source RGD Symbol Acc 3889
G06	UPFR1044594	ENSRNOT00000016904.3	Tsc1	ENSRNOG00000011470	TSC complex subunit 1 Source RGD Symbol Acc 620124
G07	UPFR1091158	ENSRNOT00000052138.6	Tsc2	ENSRNOG00000011375	TSC complex subunit 2 Source RGD Symbol Acc 3908
G08	UPFR1015373	ENSRNOT00000056790.3	Ulk1	ENSRNOG00000037505	unc-51 like autophagy activating kinase 1 Source RGD Symbol Acc 1589743
G09	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG00000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G10	UPFR1063692	ENSRNOT00000050891.3	Vegfb	ENSRNOG00000021156	vascular endothelial growth factor B Source RGD Symbol Acc 619799
G11	UPFR1108264	ENSRNOT00000015529.4	Vegfc	ENSRNOG00000011416	vascular endothelial growth factor C Source RGD Symbol Acc 619800
G12	UPFR1049382	ENSRNOT00000077786.1	Ywhaq	ENSRNOG00000051650	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta Source RGD Symbol Acc 3979
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG00000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG00000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG00000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG00000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG00000013874	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 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.

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