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

Rat MAP Kinase Signaling Pathway

Cat. no. 249955 UPRN-061ZR

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	Araf	Atf2	Ccna1	Ccna2	Ccnb1	Dusp1	Ccnd1	Ccnd2	Ccnd3	Ccne1	Cdc42	Cdk2
B	Cdk4	Cdk6	Cdkn1a	Cdkn1b	Cdkn1c	Cdkn2a	Cdkn2b	Cdkn2c	Dusp2	Chuk	Col1a1	Creb1
C	Crebbp	Dlk1	E2f1	Egfr	Egr1	Ets1	Ets2	Fos	Grb2	Hras	Hspa5	Hspb1
D	Jun	Kcnh8	Kcnn1	Kras	LOC100910771	Map2k1	Lamtor3	Map2k2	Map2k3	Map2k4	Map2k5	Map2k6
E	Map2k7	Map3k1	Map3k2	Map3k3	Map3k4	Map4k1	Mapk1	Mapk10	Mapk11	Mapk12	Mapk13	Mapk14
F	Mapk3	Mapk6	LOC100912585	Mapk8	Mapk8ip1	Mapk8ip2	Mapk8ip3	Mapk9	Mapkapk2	Mapkapk5	Max	Mef2c
G	Mknk1	Mos	Myc	Nfatc4	Nras	Pak1	Rac1	Raf1	Rb1	Sfn	Smad4	Tp53
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	UPFR1060431	ENSRNOT00000039911.3	Araf	ENSRNOG00000010838	A-Raf proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 2148
A02	UPFR1067157	ENSRNOT00000002174.7	Atf2	ENSRNOG00000001597	activating transcription factor 2 Source RGD Symbol Acc 621862
A03	UPFR1094876	ENSRNOT00000040002.4	Ccna1	ENSRNOG00000014052	cyclin A1 Source RGD Symbol Acc 1310639
A04	UPFR1066997	ENSRNOT00000021156.6	Ccna2	ENSRNOG00000015423	cyclin A2 Source RGD Symbol Acc 621059
A05	UPFR1042030	ENSRNOT00000082846.1	Ccnb1	ENSRNOG00000058539	cyclin B1 Source RGD Symbol Acc 2291
A06	UPFR1053812	ENSRNOT00000005383.5	Dusp1	ENSRNOG00000003977	dual specificity phosphatase 1 Source RGD Symbol Acc 620897
A07	UPFR1042457	ENSRNOT00000088588.1	Ccnd1	ENSRNOG00000020918	cyclin D1 Source RGD Symbol Acc 68384
A08	UPFR1088052	ENSRNOT00000086440.1	Ccnd2	ENSRNOG00000057710	cyclin D2 Source RGD Symbol Acc 621083
A09	UPFR1115909	ENSRNOT00000074217.1	Ccnd3	ENSRNOG00000050258	cyclin D3 Source RGD Symbol Acc 2293
A10	UPFR1117418	ENSRNOT00000020014.4	Ccne1	ENSRNOG00000014786	cyclin E1 Source RGD Symbol Acc 2294
A11	UPFR1103160	ENSRNOT00000018118.5	Cdc42	ENSRNOG00000013536	cell division cycle 42 Source RGD Symbol Acc 71043
A12	UPFR1076908	ENSRNOT00000031963.3	Cdk2	ENSRNOG00000006469	cyclin dependent kinase 2 Source RGD Symbol Acc 70486
B01	UPFR1035170	ENSRNOT00000031796.4	Cdk4	ENSRNOG00000025602	cyclin-dependent kinase 4 Source RGD Symbol Acc 621120
B02	UPFR1110184	ENSRNOT00000012597.6	Cdk6	ENSRNOG00000009258	cyclin-dependent kinase 6 Source RGD Symbol Acc 621121
B03	UPFR1028644	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG00000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B04	UPFR1069360	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG00000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B05	UPFR1068211	ENSRNOT00000078944.1	Cdkn1c	ENSRNOG00000059500	cyclin-dependent kinase inhibitor 1C Source RGD Symbol Acc 727892
B06	UPFR1104432	ENSRNOT00000079251.1	Cdkn2a	ENSRNOG00000059837	cyclin-dependent kinase inhibitor 2A Source RGD Symbol Acc 2323
B07	UPFR1115067	ENSRNOT00000092196.1	Cdkn2b	ENSRNOG00000006735	cyclin-dependent kinase inhibitor 2B Source RGD Symbol Acc 2324
B08	UPFR1024713	ENSRNOT00000012088.7	Cdkn2c	ENSRNOG00000008956	cyclin-dependent kinase inhibitor 2C Source RGD Symbol Acc 2325
B09	UPFR1108702	ENSRNOT00000018549.5	Dusp2	ENSRNOG00000013862	dual specificity phosphatase 2 Source RGD Symbol Acc 1305804
B10	UPFR1110725	ENSRNOT00000030782.4	Chuk	ENSRNOG00000022485	conserved helix-loop-helix ubiquitous kinase Source RGD Symbol Acc 1306661
B11	UPFR1053469	ENSRNOT00000005311.6	Col1a1	ENSRNOG00000003897	collagen type I alpha 1 chain Source RGD Symbol Acc 61817
B12	UPFR1042088	ENSRNOT00000018326.5	Creb1	ENSRNOG00000013412	cAMP responsive element binding protein 1 Source RGD Symbol Acc 620218
C01	UPFR1058705	ENSRNOT00000007079.5	Crebbp	ENSRNOG00000005330	CREB binding protein Source RGD Symbol Acc 2401
C02	UPFR1103659	ENSRNOT00000006339.6	Dlk1	ENSRNOG00000019584	delta like non-canonical Notch ligand 1 Source RGD Symbol Acc 619931
C03	UPFR1077824	ENSRNOT00000022428.6	E2f1	ENSRNOG00000016708	N-terminal EF-hand calcium binding protein 3 Source RGD Symbol Acc 1310124
C04	UPFR1091984	ENSRNOT00000006087.2	Egfr	ENSRNOG00000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
C05	UPFR1034050	ENSRNOT00000026303.4	Egr1	ENSRNOG00000019422	early growth response 1 Source RGD Symbol Acc 2544
C06	UPFR1072908	ENSRNOT00000011925.4	Ets1	ENSRNOG00000008941	ETS proto-oncogene 1, transcription factor Source RGD Symbol Acc 2583
C07	UPFR1103791	ENSRNOT00000002247.6	Ets2	ENSRNOG00000001647	ETS proto-oncogene 2, transcription factor Source RGD Symbol Acc 1584977
C08	UPFR1045359	ENSRNOT00000010712.3	Fos	ENSRNOG00000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
C09	UPFR1087543	ENSRNOT00000005347.5	Grb2	ENSRNOG00000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
C10	UPFR1076419	ENSRNOT00000022363.6	Hras	ENSRNOG00000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
		ENSRNOT00000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1074347	025067.6	Hspa5	000018294	heat shock protein family A member 5 Source RGD Symbol Acc 2843
C12	UPFR1030516	ENSRNOT00000031555.5	Hspb1	ENSRNOG00000023546	heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306
D01	UPFR1037970	ENSRNOT00000011731.3	Jun	ENSRNOG00000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
D02	UPFR1013403	ENSRNOT00000087331.1	Kcnh8	ENSRNOG00000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
D03	UPFR1071036	ENSRNOT00000080467.1	Kcnn1	ENSRNOG00000029264	potassium calcium-activated channel subfamily N member 1 Source RGD Symbol Acc 2962
D04	UPFR1088461	ENSRNOT00000012588.4	Kras	ENSRNOG00000009338	KRAS proto-oncogene, GTPase Source RGD Symbol Acc 2981
D05	UPFR1103973	ENSRNOT00000007654.5	LOC100910771	ENSRNOG00000005724	mitogen-activated protein kinase kinase kinase 7-like Source RGD Symbol Acc 6496502
D06	UPFR1053192	ENSRNOT00000013933.6	Map2k1	ENSRNOG00000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
D07	UPFR1026932	ENSRNOT00000014027.5	Lamtor3	ENSRNOG00000010552	late endosomal/lysosomal adaptor, MAPK and MTOR activator 3 Source RGD Symbol Acc 1307133
D08	UPFR1041466	ENSRNOT00000027272.5	Map2k2	ENSRNOG00000020005	mitogen activated protein kinase kinase 2 Source RGD Symbol Acc 61888
D09	UPFR1058261	ENSRNOT00000073792.2	Map2k3	ENSRNOG00000049132	mitogen activated protein kinase kinase 3 Source RGD Symbol Acc 1306620
D10	UPFR1096951	ENSRNOT00000005293.7	Map2k4	ENSRNOG00000003834	mitogen activated protein kinase kinase 4 Source RGD Symbol Acc 1307040
D11	UPFR1117267	ENSRNOT00000051558.4	Map2k5	ENSRNOG00000007926	mitogen activated protein kinase kinase 5 Source RGD Symbol Acc 61890
D12	UPFR1098004	ENSRNOT00000006217.6	Map2k6	ENSRNOG00000004437	mitogen-activated protein kinase kinase 6 Source RGD Symbol Acc 620666
E01	UPFR1059686	ENSRNOT00000084460.1	Map2k7	ENSRNOG00000001047	mitogen activated protein kinase kinase 7 Source RGD Symbol Acc 1560043
E02	UPFR1044671	ENSRNOT00000017968.3	Map3k1	ENSRNOG00000013177	mitogen-activated protein kinase kinase kinase 1 Source RGD Symbol Acc 620966
E03	UPFR1053149	ENSRNOT00000060996.3	Map3k2	ENSRNOG00000014089	mitogen activated protein kinase kinase kinase 2 Source RGD Symbol Acc 620967
E04	UPFR1063856	ENSRNOT00000088656.1	Map3k3	ENSRNOG00000061424	mitogen activated protein kinase kinase kinase 3 Source RGD Symbol Acc 1304575
E05	UPFR1068287	ENSRNOT00000064018.3	Map3k4	ENSRNOG00000017419	mitogen activated protein kinase kinase kinase 4 Source RGD Symbol Acc 1311192
E06	UPFR1051949	ENSRNOT00000027837.6	Map4k1	ENSRNOG00000020505	mitogen activated protein kinase kinase kinase kinase 1 Source RGD Symbol Acc 1305463
E07	UPFR1055882	ENSRNOT00000002533.7	Mapk1	ENSRNOG00000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
E08	UPFR1062108	ENSRNOT00000092395.1	Mapk10	ENSRNOG00000002079	mitogen activated protein kinase 10 Source RGD Symbol Acc 3663
E09	UPFR1074404	ENSRNOT00000009325.6	Mapk11	ENSRNOG00000006984	mitogen-activated protein kinase 11 Source RGD Symbol Acc 1309340
E10	UPFR1079036	ENSRNOT00000044376.4	Mapk12	ENSRNOG00000031233	mitogen-activated protein kinase 12 Source RGD Symbol Acc 70975
E11	UPFR1029556	ENSRNOT00000000621.6	Mapk13	ENSRNOG00000000515	mitogen activated protein kinase 13 Source RGD Symbol Acc 3045
E12	UPFR1036984	ENSRNOT00000000617.8	Mapk14	ENSRNOG00000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
F01	UPFR1049954	ENSRNOT00000087625.1	Mapk3	ENSRNOG00000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
F02	UPFR1037955	ENSRNOT00000013053.6	Mapk6	ENSRNOG00000009381	mitogen-activated protein kinase 6 Source RGD Symbol Acc 62087
F03	UPFR1046227	ENSRNOT00000057864.5	LOC100912585	ENSRNOG00000002412	mitogen-activated protein kinase 7-like Source RGD Symbol Acc 6486357
F04	UPFR1048766	ENSRNOT00000065216.3	Mapk8	ENSRNOG00000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
F05	UPFR1081351	ENSRNOT00000079746.1	Mapk8ip1	ENSRNOG00000058478	mitogen-activated protein kinase 8 interacting protein 1 Source RGD Symbol Acc 70937
F06	UPFR1105363	ENSRNOT00000055792.2	Mapk8ip2	ENSRNOG00000032828	mitogen-activated protein kinase 8 interacting protein 2 Source RGD Symbol Acc 1309727
F07	UPFR1071416	ENSRNOT00000042066.3	Mapk8ip3	ENSRNOG00000033568	mitogen-activated protein kinase 8 interacting protein 3 Source RGD Symbol Acc 1563691
F08	UPFR1038865	ENSRNOT00000083688.1	Mapk9	ENSRNOG00000002823	mitogen-activated protein kinase 9 Source RGD Symbol Acc 628847
F09	UPFR1112750	ENSRNOT00000061070.4	Mapkapk2	ENSRNOG00000004726	mitogen-activated protein kinase-activated protein kinase 2 Source RGD Symbol Acc 631362
F10	UPFR1088504	ENSRNOT00000001817.7	Mapkapk5	ENSRNOG00000001345	mitogen-activated protein kinase-activated protein kinase 5 Source RGD Symbol Acc 1564113

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1112291	ENSRNOT00000010954.5	Max	ENSRNOG00000008049	MYC associated factor X Source RGD Symbol Acc 621101
F12	UPFR1035243	ENSRNOT00000076239.1	Mef2c	ENSRNOG00000033134	myocyte enhancer factor 2C Source RGD Symbol Acc 1563119
G01	UPFR1119759	ENSRNOT00000067655.2	Mknk1	ENSRNOG00000010381	MAP kinase-interacting serine/threonine kinase 1 Source RGD Symbol Acc 1559603
G02	UPFR1067627	ENSRNOT00000011602.5	Mos	ENSRNOG00000008567	MOS proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3103
G03	UPFR1101439	ENSRNOT00000006188.5	Myc	ENSRNOG00000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
G04	UPFR1030738	ENSRNOT00000027789.5	Nfatc4	ENSRNOG00000020482	nuclear factor of activated T-cells 4 Source RGD Symbol Acc 1310749
G05	UPFR1038224	ENSRNOT00000039572.3	Nras	ENSRNOG00000023079	NRAS proto-oncogene, GTPase Source RGD Symbol Acc 3205
G06	UPFR1066459	ENSRNOT00000091952.1	Pak1	ENSRNOG00000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
G07	UPFR1019271	ENSRNOT00000001417.5	Rac1	ENSRNOG00000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
G08	UPFR1087799	ENSRNOT00000013831.6	Raf1	ENSRNOG00000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
G09	UPFR1039430	ENSRNOT00000021752.5	Rb1	ENSRNOG00000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
G10	UPFR1042676	ENSRNOT00000043959.4	Sfn	ENSRNOG00000033153	stratifin Source RGD Symbol Acc 1304729
G11	UPFR1022605	ENSRNOT00000082484.1	Smad4	ENSRNOG00000051965	SMAD family member 4 Source RGD Symbol Acc 3033
G12	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG00000010756	tumor protein p53 Source RGD Symbol Acc 3889
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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