

# QuantiNova® LNA® Probe PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

## Rat Gap Junctions

Cat. no. 249955 UPRN-144ZA

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 (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA Probe PCR Handbook at [www.qiagen.com](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Adcy1	Adcy2	Adcy3	Adcy4	Adrb2	Cav1	Cdk1	Csnk1d	Ctnnb1	Ddn1	Egfr	Gja1
<b>B</b>	Gja10	Gja3	Gja4	Gja5	Gjc1	Gja8	Gjb1	Gjb2	Gjb3	Gjb4	Gjb5	Gjb6
<b>C</b>	Gjc2	Gjc3	Gjd2	Gnai1	Grb2	Grm1	Gucy1a2	Gucy1a1	Gucy1b1	Hras	Htr2a	Itpr1
<b>D</b>	Ilpr2	Kras	Lpar1	Map2k1	Map2k2	Map2k5	Map3k2	Mapk1	Mapk3	LOC1009125 85	Ccn3	Nras
<b>E</b>	Panx1	Panx2	Panx3	Pdgfra	Pdgfrb	Plcb1	Plcb2	Plcb3	Plcb4	Prkaca	Prkacb	Prkca
<b>F</b>	Prkcb	Prkcg	AABR0700672 7.1	Prkg2	Raf1	Sos1	Sos2	Src	Tjep1	Tjp1	Tjp2	Tuba1a
<b>G</b>	LOC1009094 41	Tuba3b	Tuba4a	Tubb2b	Tubb4b	Tubb3	Tubb4a	Tubb5	Tubb6	Tubd1	Tube1	Tubg1
<b>H</b>	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	UPFR1014500	ENSRNOT00000088032.1	Adcy1	ENSRNOG0000059479	adenylate cyclase 1 Source RGD Symbol Acc 1309318
A02	UPFR1049460	ENSRNOT00000047627.3	Adcy2	ENSRNOG0000032150	adenylate cyclase 2 Source RGD Symbol Acc 619965
A03	UPFR1089457	ENSRNOT00000005389.6	Adcy3	ENSRNOG0000003999	adenylate cyclase 3 Source RGD Symbol Acc 71009
A04	UPFR1095099	ENSRNOT00000067536.2	Adcy4	ENSRNOG0000020401	adenylate cyclase 4 Source RGD Symbol Acc 2034
A05	UPFR1035973	ENSRNOT00000026098.3	Adrb2	ENSRNOG0000019217	adrenoceptor beta 2 Source RGD Symbol Acc 2060
A06	UPFR1012931	ENSRNOT00000078250.1	Cav1	ENSRNOG0000056836	caveolin 1 Source RGD Symbol Acc 2280
A07	UPFR1047122	ENSRNOT00000081113.1	Cdk1	ENSRNOG0000000632	cyclin-dependent kinase 1 Source RGD Symbol Acc 2319
A08	UPFR1081224	ENSRNOT00000054936.3	Csnk1d	ENSRNOG0000036676	casein kinase 1, delta Source RGD Symbol Acc 71031
A09	UPFR1057605	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
A10	UPFR1103643	ENSRNOT00000019569.7	Dbn1	ENSRNOG0000014170	drebrin 1 Source RGD Symbol Acc 70885
A11	UPFR1091984	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
A12	UPFR1122020	ENSRNOT00000001054.4	Gja1	ENSRNOG0000000805	gap junction protein, alpha 1 Source RGD Symbol Acc 2690
B01	UPFR1077155	ENSRNOT00000008469.5	Gja10	ENSRNOG0000006478	gap junction protein, alpha 10 Source RGD Symbol Acc 1309630
B02	UPFR1121417	ENSRNOT00000011699.4	Gja3	ENSRNOG0000008847	gap junction protein, alpha 3 Source RGD Symbol Acc 621820
B03	UPFR1042041	ENSRNOT00000019246.5	Gja4	ENSRNOG0000014357	gap junction protein, alpha 4 Source RGD Symbol Acc 2691
B04	UPFR1045827	ENSRNOT00000023488.6	Gja5	ENSRNOG0000017484	gap junction protein, alpha 5 Source RGD Symbol Acc 2692
B05	UPFR1084436	ENSRNOT00000073372.2	Gjc1	ENSRNOG0000048838	gap junction protein, gamma 1 Source RGD Symbol Acc 628889
B06	UPFR1120792	ENSRNOT00000071622.2	Gja8	ENSRNOG0000046703	gap junction protein, alpha 8 Source RGD Symbol Acc 628890
B07	UPFR1047097	ENSRNOT00000076816.1	Gjb1	ENSRNOG0000003746	gap junction protein, beta 1 Source RGD Symbol Acc 61926
B08	UPFR1076817	ENSRNOT00000011711.4	Gjb2	ENSRNOG0000008855	gap junction protein, beta 2 Source RGD Symbol Acc 728891
B09	UPFR1069108	ENSRNOT00000019266.2	Gjb3	ENSRNOG0000014372	gap junction protein, beta 3 Source RGD Symbol Acc 2695
B10	UPFR1017691	ENSRNOT00000037128.3	Gjb4	ENSRNOG0000026910	gap junction protein, beta 4 Source RGD Symbol Acc 621829
B11	UPFR1047539	ENSRNOT00000081919.1	Gjb5	ENSRNOG0000059897	gap junction protein, beta 5 Source RGD Symbol Acc 2696
B12	UPFR1085144	ENSRNOT00000011742.3	Gjb6	ENSRNOG0000022116	gap junction protein, beta 6 Source RGD Symbol Acc 621830
C01	UPFR1119668	ENSRNOT00000058362.3	Gjc2	ENSRNOG0000038328	gap junction protein, gamma 2 Source RGD Symbol Acc 1562712
C02	UPFR1105739	ENSRNOT00000001797.4	Gjc3	ENSRNOG0000001329	gap junction protein, gamma 3 Source RGD Symbol Acc 727930
C03	UPFR1067682	ENSRNOT00000011078.3	Gjd2	ENSRNOG0000008337	gap junction protein, delta 2 Source RGD Symbol Acc 2694
C04	UPFR1071302	ENSRNOT00000091004.1	Gnai1	ENSRNOG0000057096	G protein subunit alpha i1 Source RGD Symbol Acc 2713
C05	UPFR1087543	ENSRNOT00000005347.5	Grb2	ENSRNOG0000003990	growth factor receptor bound protein 2 Source RGD Symbol Acc 619758
C06	UPFR1030956	ENSRNOT00000044325.3	Grm1	ENSRNOG0000014290	glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742
C07	UPFR1026345	ENSRNOT00000046058.4	Gucy1a2	ENSRNOG0000029876	guanylate cyclase 1 soluble subunit alpha 2 Source RGD Symbol Acc 621655
C08	UPFR1071753	ENSRNOT00000017190.4	Gucy1a1	ENSRNOG0000012302	guanylate cyclase 1 soluble subunit alpha 1 Source RGD Symbol Acc 68436
C09	UPFR1046774	ENSRNOT00000064930.2	Gucy1b1	ENSRNOG0000012060	guanylate cyclase 1 soluble subunit beta 1 Source RGD Symbol Acc 2769
C10	UPFR1076419	ENSRNOT00000022363.6	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1042475	013408.6	Htr2a	000010063	5-hydroxytryptamine receptor 2A Source RGD Symbol Acc 61800
C12	UPFR1103770	ENSRNOT00000 064025.3	Itpr1	ENSRNOG00 000007104	inositol 1,4,5-trisphosphate receptor, type 1 Source RGD Symbol Acc 2933
D01	UPFR1091408	ENSRNOT00000 040645.5	Itpr2	ENSRNOG00 000001804	inositol 1,4,5-trisphosphate receptor, type 2 Source RGD Symbol Acc 69649
D02	UPFR1088461	ENSRNOT00000 012588.4	Kras	ENSRNOG00 000009338	KRAS proto-oncogene, GTPase Source RGD Symbol Acc 2981
D03	UPFR1048335	ENSRNOT00000 044348.2	Lpar1	ENSRNOG00 000013656	lysophosphatidic acid receptor 1 Source RGD Symbol Acc 620563
D04	UPFR1053192	ENSRNOT00000 013933.6	Map2k1	ENSRNOG00 000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
D05	UPFR1041466	ENSRNOT00000 027272.5	Map2k2	ENSRNOG00 000020005	mitogen activated protein kinase kinase 2 Source RGD Symbol Acc 61888
D06	UPFR1117267	ENSRNOT00000 051558.4	Map2k5	ENSRNOG00 000007926	mitogen activated protein kinase kinase 5 Source RGD Symbol Acc 61890
D07	UPFR1053149	ENSRNOT00000 060996.3	Map3k2	ENSRNOG00 000014089	mitogen activated protein kinase kinase 2 Source RGD Symbol Acc 620967
D08	UPFR1055882	ENSRNOT00000 002533.7	Mapk1	ENSRNOG00 000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
D09	UPFR1049954	ENSRNOT00000 087625.1	Mapk3	ENSRNOG00 000053583	mitogen activated protein kinase 3 Source RGD Symbol Acc 3046
D10	UPFR1046227	ENSRNOT00000 057864.5	LOC10091 2585	ENSRNOG00 000002412	mitogen-activated protein kinase 7-like Source RGD Symbol Acc 6486357
D11	UPFR1021801	ENSRNOT00000 011904.5	Ccn3	ENSRNOG00 000008697	cellular communication network factor 3 Source RGD Symbol Acc 621553
D12	UPFR1038224	ENSRNOT00000 039572.3	Nras	ENSRNOG00 000023079	NRAS proto-oncogene, GTPase Source RGD Symbol Acc 3205
E01	UPFR1020342	ENSRNOT00000 013577.5	Panx1	ENSRNOG00 000010060	Pannexin 1 Source RGD Symbol Acc 735204
E02	UPFR1109157	ENSRNOT00000 089707.1	Panx2	ENSRNOG00 000055530	pannexin 2 Source RGD Symbol Acc 735191
E03	UPFR1035890	ENSRNOT00000 042717.2	Panx3	ENSRNOG00 000031675	pannexin 3 Source RGD Symbol Acc 735137
E04	UPFR1089489	ENSRNOT00000 003077.5	Pdgfra	ENSRNOG00 000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E05	UPFR1052705	ENSRNOT00000 086033.1	Pdgfrb	ENSRNOG00 000018461	platelet derived growth factor receptor beta Source RGD Symbol Acc 3285
E06	UPFR1112999	ENSRNOT00000 006389.6	Plcb1	ENSRNOG00 000004810	phospholipase C beta 1 Source RGD Symbol Acc 3344
E07	UPFR1082452	ENSRNOT00000 078037.1	Plcb2	ENSRNOG00 000058337	phospholipase C, beta 2 Source RGD Symbol Acc 621004
E08	UPFR1079558	ENSRNOT00000 028720.6	Plcb3	ENSRNOG00 000021150	phospholipase C beta 3 Source RGD Symbol Acc 61993
E09	UPFR1102482	ENSRNOT00000 045393.4	Plcb4	ENSRNOG00 000033119	phospholipase C, beta 4 Source RGD Symbol Acc 3345
E10	UPFR1048640	ENSRNOT00000 041717.4	Prkaca	ENSRNOG00 000005257	protein kinase cAMP-activated catalytic subunit alpha Source RGD Symbol Acc 3389
E11	UPFR1055817	ENSRNOT00000 068739.1	Prkacb	ENSRNOG00 000004978	protein kinase cAMP-activated catalytic subunit beta Source RGD Symbol Acc 1310574
E12	UPFR1034906	ENSRNOT00000 004699.8	Prkca	ENSRNOG00 000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F01	UPFR1083743	ENSRNOT00000 016418.6	Prkcb	ENSRNOG00 000012061	protein kinase C, beta Source RGD Symbol Acc 3396
F02	UPFR1032334	ENSRNOT00000 080032.1	Prkcg	ENSRNOG00 000054371	protein kinase C, gamma Source RGD Symbol Acc 3397
F03	UPFR1096562	ENSRNOT00000 082874.1	AABR0700 6727.1	ENSRNOG00 000052057	
F04	UPFR1033715	ENSRNOT00000 003237.4	Prkg2	ENSRNOG00 000002361	protein kinase cGMP-dependent 2 Source RGD Symbol Acc 3401
F05	UPFR1087799	ENSRNOT00000 013831.6	Raf1	ENSRNOG00 000010153	Raf-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3531
F06	UPFR1051335	ENSRNOT00000 009359.7	Sos1	ENSRNOG00 000007106	SOS Ras/Rac guanine nucleotide exchange factor 1 Source RGD Symbol Acc 1310949
F07	UPFR1113990	ENSRNOT00000 006425.5	Sos2	ENSRNOG00 000004826	SOS Ras/Rho guanine nucleotide exchange factor 2 Source RGD Symbol Acc 620435
F08	UPFR1050158	ENSRNOT00000 012739.4	Src	ENSRNOG00 000009495	SRC proto-oncogene, non-receptor tyrosine kinase Source RGD Symbol Acc 620795
F09	UPFR1033943	ENSRNOT00000 025660.5	Tjap1	ENSRNOG00 000018980	tight junction associated protein 1 Source RGD Symbol Acc 1308708
F10	UPFR1053688	ENSRNOT00000 014988.7	Tjp1	ENSRNOG00 000011077	tight junction protein 1 Source RGD Symbol Acc 1306305

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1033687	ENSRNOT00000065921.3	Tjp2	ENSRNOG0000015030	tight junction protein 2 Source RGD Symbol Acc 619807
F12	UPFR1126585	ENSRNOT00000083156.1	Tuba1a	ENSRNOG0000060728	tubulin, alpha 1A Source RGD Symbol Acc 619717
G01	UPFR1035764	ENSRNOT00000033450.3	LOC100909441	ENSRNOG0000021438	tubulin, alpha 1C Source RGD Symbol Acc 1307226
G02	UPFR1085749	ENSRNOT00000044425.2	Tuba3b	ENSRNOG0000031707	tubulin, alpha 3B Source RGD Symbol Acc 1565155
G03	UPFR1077052	ENSRNOT00000004797.5	Tuba4a	ENSRNOG000003597	tubulin, alpha 4A Source RGD Symbol Acc 1359623
G04	UPFR1101979	ENSRNOT00000023582.4	Tubb2b	ENSRNOG0000017445	tubulin, beta 2B class IIb Source RGD Symbol Acc 1309427
G05	UPFR1042908	ENSRNOT00000013863.5	Tubb4b	ENSRNOG0000010170	tubulin, beta 4B class IVb Source RGD Symbol Acc 735101
G06	UPFR1019049	ENSRNOT00000023452.6	Tubb3	ENSRNOG0000017209	tubulin, beta 3 class III Source RGD Symbol Acc 628595
G07	UPFR1027252	ENSRNOT00000075767.2	Tubb4a	ENSRNOG0000047505	tubulin, beta 4A class IVa Source RGD Symbol Acc 619730
G08	UPFR1079019	ENSRNOT00000084917.1	Tubb5	ENSRNOG0000061216	tubulin, beta 5 class I Source RGD Symbol Acc 628596
G09	UPFR1052469	ENSRNOT00000024947.4	Tubb6	ENSRNOG0000018371	tubulin, beta 6 class V Source RGD Symbol Acc 1305887
G10	UPFR1088278	ENSRNOT00000081012.1	Tubd1	ENSRNOG0000053309	tubulin, delta 1 Source RGD Symbol Acc 1311967
G11	UPFR1016565	ENSRNOT00000047194.3	Tube1	ENSRNOG0000000598	tubulin, epsilon 1 Source RGD Symbol Acc 1306048
G12	UPFR1018400	ENSRNOT00000027370.5	Tubg1	ENSRNOG0000020213	tubulin, gamma 1 Source RGD Symbol Acc 628606
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 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ 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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