

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

## Rat Fatty Liver

Cat. no. 249955 UPRN-157ZR

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Abca1	Abcg1	Acaca	Acadl	Acly	Acox1	Acl5	Acm3	Adipor1	Adipor2	Akt1	Apoa1
<b>B</b>	Apob	Apoc3	Apoe	Tcf3	Casp3	RGD1565355	Cebpb	Cnbp	Cpt1a	Cpt2	Cyp2e1	Cyp7a1
<b>C</b>	Dgat2	Fabp1	Fabp3	Fabp5	Fas	Fasn	Foxa2	G6pc	G6pd	Gck	Gk	Gsk3b
<b>D</b>	Hmgcr	Hnf4a	Ifng	Igf1	Igf1bp1	Il10	Il1b	Il6	Insr	Ins1	Ldlr	Lepr
<b>E</b>	Lpl	Mapk1	Mapk8	AABR0703583 9.1	Mtor	Ndufb6	Nfk1	Nr1h2	Nr1h3	Nr1h4	Pck2	Pdk4
<b>F</b>	Pik3ca	Pik3r1	Plkr	Ppa1	Ppara	Ppard	Pparg	Ppargc1a	Prkaa1	Ptpn1	Rbp4	Rxa
<b>G</b>	Scd	Serpine1	Slc27a5	Slc2a1	Slc2a2	Slc2a4	Socs3	Sreb1	Sreb2	Stat3	LOC1036943 80	Xbp1
<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	UPFR1019469	ENSRNOT00000024564.7	Abca1	ENSRNOG0000018126	ATP binding cassette subfamily A member 1 Source RGD Symbol Acc 631344
A02	UPFR1084113	ENSRNOT00000001533.4	Abcg1	ENSRNOG0000001158	ATP binding cassette subfamily G member 1 Source RGD Symbol Acc 620294
A03	UPFR1068311	ENSRNOT00000088138.1	Acaca	ENSRNOG0000034013	acetyl-CoA carboxylase alpha Source RGD Symbol Acc 621248
A04	UPFR1080148	ENSRNOT00000017686.7	Acadl	ENSRNOG0000012966	acyl-CoA dehydrogenase, long chain Source RGD Symbol Acc 2011
A05	UPFR1108876	ENSRNOT00000043172.4	Acly	ENSRNOG0000016924	ATP citrate lyase Source RGD Symbol Acc 2018
A06	UPFR1092066	ENSRNOT00000046754.5	Acox1	ENSRNOG0000008755	acyl-CoA oxidase 1 Source RGD Symbol Acc 619757
A07	UPFR1034409	ENSRNOT00000022126.6	Acsf5	ENSRNOG0000016265	acyl-CoA synthetase long-chain family member 5 Source RGD Symbol Acc 69402
A08	UPFR1076274	ENSRNOT00000020039.6	Acsm3	ENSRNOG0000032246	acyl-CoA synthetase medium-chain family member 3 Source RGD Symbol Acc 62086
A09	UPFR1081829	ENSRNOT00000005551.4	Adipor1	ENSRNOG0000004143	adiponectin receptor 1 Source RGD Symbol Acc 1303151
A10	UPFR1078945	ENSRNOT00000010556.5	Adipor2	ENSRNOG0000007990	adiponectin receptor 2 Source RGD Symbol Acc 1307891
A11	UPFR1083196	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A12	UPFR1066328	ENSRNOT00000074357.2	Apoa1	ENSRNOG0000045679	apolipoprotein A1 Source RGD Symbol Acc 2130
B01	UPFR1053925	ENSRNOT00000046811.4	Apob	ENSRNOG0000005542	apolipoprotein B Source RGD Symbol Acc 2129
B02	UPFR1031429	ENSRNOT00000074942.2	Apoc3	ENSRNOG0000047503	apolipoprotein C3 Source RGD Symbol Acc 2136
B03	UPFR1073431	ENSRNOT00000091574.1	ApoE	ENSRNOG0000018454	apolipoprotein E Source RGD Symbol Acc 2138
B04	UPFR1047234	ENSRNOT00000041346.4	Taf3	ENSRNOG0000019223	ATP synthase F1 subunit gamma Source RGD Symbol Acc 620011
B05	UPFR1091664	ENSRNOT00000014095.5	Casp3	ENSRNOG0000010475	caspase 3 Source RGD Symbol Acc 2275
B06	UPFR1013797	ENSRNOT00000008319.8	RGD1565355	ENSRNOG0000040108	similar to fatty acid translocase/CD36 Source RGD Symbol Acc 1565355
B07	UPFR1126579	ENSRNOT00000083876.1	Cebpb	ENSRNOG0000057347	CCAAT/enhancer binding protein beta Source RGD Symbol Acc 2327
B08	UPFR1071596	ENSRNOT00000013884.6	Cnbp	ENSRNOG0000010239	CCHC-type zinc finger, nucleic acid binding protein Source RGD Symbol Acc 621807
B09	UPFR1101909	ENSRNOT00000019652.3	Cpt1a	ENSRNOG0000014254	carnitine palmitoyltransferase 1A Source RGD Symbol Acc 2396
B10	UPFR1106957	ENSRNOT00000016954.3	Cpt2	ENSRNOG0000012443	carnitine palmitoyltransferase 2 Source RGD Symbol Acc 2398
B11	UPFR1025167	ENSRNOT00000016883.6	Cyp2e1	ENSRNOG0000012458	cytochrome P450, family 2, subfamily e, polypeptide 1 Source RGD Symbol Acc 2475
B12	UPFR1121855	ENSRNOT00000012819.4	Cyp7a1	ENSRNOG0000009488	cytochrome P450 family 7 subfamily A member 1 Source RGD Symbol Acc 2482
C01	UPFR1028105	ENSRNOT00000081669.1	Dgat2	ENSRNOG0000016573	diacylglycerol O-acyltransferase 2 Source RGD Symbol Acc 620329
C02	UPFR1068726	ENSRNOT00000008840.5	Fabp1	ENSRNOG0000006675	fatty acid binding protein 1 Source RGD Symbol Acc 2590
C03	UPFR1083061	ENSRNOT00000017325.5	Fabp3	ENSRNOG0000012879	fatty acid binding protein 3 Source RGD Symbol Acc 69048
C04	UPFR1101216	ENSRNOT00000075493.2	Fabp5	ENSRNOG0000049075	fatty acid binding protein 5 Source RGD Symbol Acc 70997
C05	UPFR1075141	ENSRNOT00000025928.5	Fas	ENSRNOG0000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
C06	UPFR1036900	ENSRNOT00000073321.2	Fasn	ENSRNOG0000045636	fatty acid synthase Source RGD Symbol Acc 620665
C07	UPFR1121047	ENSRNOT00000017742.3	Foxa2	ENSRNOG0000013133	forkhead box A2 Source RGD Symbol Acc 2808
C08	UPFR1020583	ENSRNOT00000085831.1	G6pc	ENSRNOG0000051171	glucose-6-phosphatase, catalytic subunit Source RGD Symbol Acc 2644
C09	UPFR1120389	ENSRNOT00000080887.1	G6pd	ENSRNOG0000056728	glucose-6-phosphate dehydrogenase Source RGD Symbol Acc 2645
C10	UPFR1055169	ENSRNOT00000080147.1	Gck	ENSRNOG0000061527	glucokinase Source RGD Symbol Acc 2670
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1054947	064340.3	Gk	000034116	glycerol kinase Source RGD Symbol Acc 70893
C12	UPFR1109626	ENSRNOT00000 077612.1	Gsk3b	ENSRNOG00 000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
D01	UPFR1042968	ENSRNOT00000 022055.4	Hmgcr	ENSRNOG00 000016122	3-hydroxy-3-methylglutaryl-CoA reductase Source RGD Symbol Acc 2803
D02	UPFR1098273	ENSRNOT00000 089893.1	Hnf4a	ENSRNOG00 000008895	hepatocyte nuclear factor 4, alpha Source RGD Symbol Acc 2810
D03	UPFR1084134	ENSRNOT00000 009919.2	lfng	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
D04	UPFR1050099	ENSRNOT00000 038780.6	lgf1	ENSRNOG00 000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
D05	UPFR1053345	ENSRNOT00000 077177.1	lgfbp1	ENSRNOG00 000058780	insulin-like growth factor binding protein 1 Source RGD Symbol Acc 2872
D06	UPFR1113235	ENSRNOT00000 006246.5	Il10	ENSRNOG00 000004647	interleukin 10 Source RGD Symbol Acc 2886
D07	UPFR1121351	ENSRNOT00000 006308.4	Il1b	ENSRNOG00 000004649	interleukin 1 beta Source RGD Symbol Acc 2891
D08	UPFR1098910	ENSRNOT00000 013732.6	Il6	ENSRNOG00 000010278	interleukin 6 Source RGD Symbol Acc 2901
D09	UPFR1014864	ENSRNOT00000 041155.3	Insr	ENSRNOG00 000029986	insulin receptor Source RGD Symbol Acc 2917
D10	UPFR1099858	ENSRNOT00000 019579.5	Irs1	ENSRNOG00 000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D11	UPFR1015414	ENSRNOT00000 013496.3	Ldlr	ENSRNOG00 000009946	low density lipoprotein receptor Source RGD Symbol Acc 2998
D12	UPFR1076079	ENSRNOT00000 050597.5	Lepr	ENSRNOG00 000023664	leptin receptor Source RGD Symbol Acc 3001
E01	UPFR1016556	ENSRNOT00000 016543.3	Lpl	ENSRNOG00 000012181	lipoprotein lipase Source RGD Symbol Acc 3017
E02	UPFR1055882	ENSRNOT00000 002533.7	Mapk1	ENSRNOG00 000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
E03	UPFR1048766	ENSRNOT00000 065216.3	Mapk8	ENSRNOG00 000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
E04	UPFR1062720	ENSRNOT00000 071067.2	AABR0703 5839.1	ENSRNOG00 000046171	
E05	UPFR1112219	ENSRNOT00000 080751.1	Mtor	ENSRNOG00 000009615	mechanistic target of rapamycin kinase Source RGD Symbol Acc 68371
E06	UPFR1040637	ENSRNOT00000 029712.4	Ndufb6	ENSRNOG00 000024539	NADH ubiquinone oxidoreductase subunit B6 Source RGD Symbol Acc 1311354
E07	UPFR1116688	ENSRNOT00000 036838.4	Nfkb1	ENSRNOG00 000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E08	UPFR1056236	ENSRNOT00000 026862.5	Nr1h2	ENSRNOG00 000019812	nuclear receptor subfamily 1, group H, member 2 Source RGD Symbol Acc 61906
E09	UPFR1044343	ENSRNOT00000 018154.5	Nr1h3	ENSRNOG00 000013172	nuclear receptor subfamily 1, group H, member 3 Source RGD Symbol Acc 61909
E10	UPFR1073410	ENSRNOT00000 009910.4	Nr1h4	ENSRNOG00 000007197	nuclear receptor subfamily 1, group H, member 4 Source RGD Symbol Acc 628831
E11	UPFR1076561	ENSRNOT00000 025260.7	Pck2	ENSRNOG00 000018536	phosphoenolpyruvate carboxykinase 2 (mitochondrial) Source MGI Symbol Acc MGI 1860456
E12	UPFR1112759	ENSRNOT00000 012760.4	Pdk4	ENSRNOG00 000009565	pyruvate dehydrogenase kinase 4 Source RGD Symbol Acc 69061
F01	UPFR1035210	ENSRNOT00000 083720.1	Pik3ca	ENSRNOG00 000056371	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha Source RGD Symbol Acc 620916
F02	UPFR1035231	ENSRNOT00000 075057.1	Pik3r1	ENSRNOG00 000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
F03	UPFR1065120	ENSRNOT00000 065791.2	Pklr	ENSRNOG00 000020420	pyruvate kinase L/R Source RGD Symbol Acc 3336
F04	UPFR1054159	ENSRNOT00000 000674.6	Ppa1	ENSRNOG00 000000557	pyrophosphatase (inorganic) 1 Source RGD Symbol Acc 1589773
F05	UPFR1039308	ENSRNOT00000 030082.2	Ppara	ENSRNOG00 000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
F06	UPFR1082868	ENSRNOT00000 042539.5	Ppard	ENSRNOG00 000000503	peroxisome proliferator-activated receptor delta Source RGD Symbol Acc 3370
F07	UPFR1091351	ENSRNOT00000 051858.5	Pparg	ENSRNOG00 000008839	peroxisome proliferator-activated receptor gamma Source RGD Symbol Acc 3371
F08	UPFR1107303	ENSRNOT00000 006071.5	Ppargc1a	ENSRNOG00 000004473	PPARG coactivator 1 alpha Source RGD Symbol Acc 620925
F09	UPFR1073875	ENSRNOT00000 017626.5	Prkaa1	ENSRNOG00 000012799	protein kinase AMP-activated catalytic subunit alpha 1 Source RGD Symbol Acc 3387
F10	UPFR1035305	ENSRNOT00000 014309.4	Plpn1	ENSRNOG00 000010574	protein tyrosine phosphatase, non-receptor type 1 Source RGD Symbol Acc 61965

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1019843	ENSRNOT00000021055.7	Rbp4	ENSRNOG0000015518	retinol binding protein 4 Source RGD Symbol Acc 3546
F12	UPFR1042024	ENSRNOT00000012892.4	Rxra	ENSRNOG0000009446	retinoid X receptor alpha Source RGD Symbol Acc 3610
G01	UPFR1069413	ENSRNOT00000018447.5	Scd	ENSRNOG0000013552	stearoyl-CoA desaturase Source RGD Symbol Acc 621176
G02	UPFR1051798	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G03	UPFR1095460	ENSRNOT00000026575.4	Slc27a5	ENSRNOG0000019626	solute carrier family 27 member 5 Source RGD Symbol Acc 708535
G04	UPFR1052096	ENSRNOT00000083700.1	Slc2a1	ENSRNOG0000007284	solute carrier family 2 member 1 Source RGD Symbol Acc 3704
G05	UPFR1053165	ENSRNOT00000015866.6	Slc2a2	ENSRNOG0000011875	solute carrier family 2 member 2 Source RGD Symbol Acc 3705
G06	UPFR1026140	ENSRNOT00000023256.5	Slc2a4	ENSRNOG0000017226	solute carrier family 2 member 4 Source RGD Symbol Acc 2711
G07	UPFR1069728	ENSRNOT00000003940.3	Socs3	ENSRNOG0000002946	suppressor of cytokine signaling 3 Source RGD Symbol Acc 621087
G08	UPFR1104408	ENSRNOT00000004753.5	Srebf1	ENSRNOG0000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423
G09	UPFR1026089	ENSRNOT00000082603.1	Srebf2	ENSRNOG0000007400	sterol regulatory element binding transcription factor 2 Source RGD Symbol Acc 1307751
G10	UPFR1040072	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G11	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G12	UPFR1118728	ENSRNOT00000014044.6	Xbp1	ENSRNOG0000010298	X-box binding protein 1 Source RGD Symbol Acc 1303073
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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