

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

## Rat Diabetes

Cat. no. 249955 UPRN-023ZR

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
A	Ace	Acly	Adra1a	Adrb3	Agt	Akt2	Aqp2	Ccl5	Insr	Cd28	Ceacam1	Cebpa
B	Cla4	Dpp4	Dusp4	Enpp1	Fbp1	Foxc2	Foxg1	Foxp3	G6pc	Gcg	Gegr	Gck
C	Glp1r	Gpd1	Gsk3b	Hmox1	Hnf1b	Hnf4a	Icam1	Ide	Ifng	Igfbp5	Ikbbk	Il10
D	Il12b	Il4r	Il6	Inpp1l	Ins1	Irs1	Irs2	Mapk14	Mapk8	Neurod1	Nikb1	Nlx2-1
E	Nos3	Nrf1	Nsf	Parp1	Pdx1	Pik3cd	Pik3rl	Ppara	Pparg	Ppargc1a	Pipn1	Pygl
F	Rab4a	Refn	Sell	Serpine1	Slc14a2	Slc2a4	AABR0705351 6.1	Snap25	Sod2	Srebf1	Stx4	Stxbp1
G	Stxbp2	Stxbp4	Tgfb1	LOC1036943 80	Tnfrsf1a	Tnfrsf1b		Ucp2	Vamp2	Vamp3	Vapa	Vegfa
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	PPC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1115385	ENSRNOT00000 010627.8	Ace	ENSRNOG00 000062101	angiotensin I converting enzyme Source RGD Symbol Acc 2493
A02	UPFR1108876	ENSRNOT00000 043172.4	Adcy	ENSRNOG00 000016924	ATP citrate lyase Source RGD Symbol Acc 2018
A03	UPFR1015154	ENSRNOT00000 012736.3	Adra1a	ENSRNOG00 000009522	adrenoceptor alpha 1A Source RGD Symbol Acc 2055
A04	UPFR1067180	ENSRNOT00000 016907.2	Adrb3	ENSRNOG00 000012674	adrenoceptor beta 3 Source RGD Symbol Acc 2061
A05	UPFR1049261	ENSRNOT00000 024917.4	Agt	ENSRNOG00 000018445	angiotensinogen Source RGD Symbol Acc 2069
A06	UPFR1088137	ENSRNOT00000 025303.3	Akt2	ENSRNOG00 000018677	AKT serine/threonine kinase 2 Source RGD Symbol Acc 2082
A07	UPFR1069964	ENSRNOT00000 091717.1	Aqp2	ENSRNOG00 000054378	aquaporin 2 Source RGD Symbol Acc 2142
A08	UPFR1019085	ENSRNOT00000 014865.6	Cd5	ENSRNOG00 000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
A09	UPFR1014864	ENSRNOT00000 041155.3	Insr	ENSRNOG00 000029986	insulin receptor Source RGD Symbol Acc 2917
A10	UPFR1119965	ENSRNOT00000 013701.3	Cd28	ENSRNOG00 000010283	Cd28 molecule Source RGD Symbol Acc 2299
A11	UPFR1090588	ENSRNOT00000 027933.6	Cecam1	ENSRNOG00 000020578	carcinoembryonic antigen related cell adhesion molecule 1 Source RGD Symbol Acc 67396
A12	UPFR1048419	ENSRNOT00000 014517.5	Cebpa	ENSRNOG00 000010918	CCAAT/enhancer binding protein alpha Source RGD Symbol Acc 2326
B01	UPFR1019516	ENSRNOT00000 091237.1	Ctla4	ENSRNOG00 000054129	cytotoxic T-lymphocyte-associated protein 4 Source RGD Symbol Acc 61975
B02	UPFR1076130	ENSRNOT00000 077788.1	Dpp4	ENSRNOG00 000030763	dipeptidylpeptidase 4 Source RGD Symbol Acc 2515
B03	UPFR1029474	ENSRNOT00000 016328.3	Dusp4	ENSRNOG00 000011921	dual specificity phosphatase 4 Source RGD Symbol Acc 620625
B04	UPFR1081016	ENSRNOT00000 019519.6	Enpp1	ENSRNOG00 000013994	ectonucleotide pyrophosphatase/phosphodiesterase 1 Source RGD Symbol Acc 628825
B05	UPFR1059543	ENSRNOT00000 023685.6	Fbp1	ENSRNOG00 000017597	fructose-bisphosphatase 1 Source RGD Symbol Acc 2595
B06	UPFR1102350	ENSRNOT00000 072369.1	Foxc2	ENSRNOG00 000047446	forkhead box C2 Source RGD Symbol Acc 621703
B07	UPFR1034162	ENSRNOT00000 075349.1	Foxg1	ENSRNOG00 000047891	forkhead box G1 Source RGD Symbol Acc 2619
B08	UPFR1116172	ENSRNOT00000 091146.1	Foxp3	ENSRNOG00 000011702	forkhead box P3 Source RGD Symbol Acc 1562112
B09	UPFR1020583	ENSRNOT00000 085831.1	G6pc	ENSRNOG00 000051171	glucose-6-phosphatase, catalytic subunit Source RGD Symbol Acc 2644
B10	UPFR1017810	ENSRNOT00000 007356.4	Gcg	ENSRNOG00 000005498	glucagon Source RGD Symbol Acc 2668
B11	UPFR1083301	ENSRNOT00000 083601.1	Gcgr	ENSRNOG00 000036692	glucagon receptor Source RGD Symbol Acc 2669
B12	UPFR1055169	ENSRNOT00000 080147.1	Gck	ENSRNOG00 000061527	glucokinase Source RGD Symbol Acc 2670
C01	UPFR1118128	ENSRNOT00000 079509.1	Glp1r	ENSRNOG00 000001152	glucagon-like peptide 1 receptor Source RGD Symbol Acc 2703
C02	UPFR1095776	ENSRNOT00000 087662.1	Gpd1	ENSRNOG00 000056457	glycerol-3-phosphate dehydrogenase 1 Source RGD Symbol Acc 621381
C03	UPFR1109626	ENSRNOT00000 077612.1	Gsk3b	ENSRNOG00 000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C04	UPFR1040868	ENSRNOT00000 019192.6	Hmox1	ENSRNOG00 000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
C05	UPFR1044390	ENSRNOT00000 047427.5	Hnf1b	ENSRNOG00 000002598	HNF1 homeobox B Source RGD Symbol Acc 3830
C06	UPFR1098273	ENSRNOT00000 089893.1	Hnf4a	ENSRNOG00 000008895	hepatocyte nuclear factor 4, alpha Source RGD Symbol Acc 2810
C07	UPFR1031281	ENSRNOT00000 028066.5	Icam1	ENSRNOG00 000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
C08	UPFR1063798	ENSRNOT00000 023342.3	Ide	ENSRNOG00 000016833	insulin degrading enzyme Source RGD Symbol Acc 2861
C09	UPFR1084134	ENSRNOT00000 009919.2	Ifng	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
C10	UPFR1090111	ENSRNOT00000 079493.1	Igfbp5	ENSRNOG00 000017206	insulin-like growth factor binding protein 5 Source RGD Symbol Acc 2876
		ENSRNOT00000		ENSRNOG00	inhibitor of nuclear factor kappa B kinase subunit beta Source RGD Symbol Acc

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
C11	UPFR1104220	025851.4	Ikbkb	000019073	621375
C12	UPFR1113235	ENSRNOT00000 006246.5	Il10	ENSRNOG00 000004647	interleukin 10 Source RGD Symbol Acc 2886
D01	UPFR1060283	ENSRNOT00000 005898.6	Il12b	ENSRNOG00 000004380	interleukin 12B Source RGD Symbol Acc 628704
D02	UPFR1040939	ENSRNOT00000 088073.1	Il4r	ENSRNOG00 000015441	interleukin 4 receptor Source RGD Symbol Acc 2899
D03	UPFR1098910	ENSRNOT00000 013732.6	Il6	ENSRNOG00 000010278	interleukin 6 Source RGD Symbol Acc 2901
D04	UPFR1110610	ENSRNOT00000 066915.3	Inpp1	ENSRNOG00 000019730	inositol polyphosphate phosphatase-like 1 Source RGD Symbol Acc 68396
D05	UPFR1070033	ENSRNOT00000 016052.5	Ins1	ENSRNOG00 000012052	insulin 1 Source RGD Symbol Acc 2915
D06	UPFR1099858	ENSRNOT00000 019579.5	Irs1	ENSRNOG00 000014597	insulin receptor substrate 1 Source RGD Symbol Acc 2922
D07	UPFR1089782	ENSRNOT00000 032918.6	Irs2	ENSRNOG00 000023509	insulin receptor substrate 2 Source RGD Symbol Acc 69316
D08	UPFR1036984	ENSRNOT00000 000617.8	Mapk14	ENSRNOG00 000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
D09	UPFR1048766	ENSRNOT00000 065216.3	Mapk8	ENSRNOG00 000020155	mitogen-activated protein kinase 8 Source RGD Symbol Acc 621506
D10	UPFR1051509	ENSRNOT00000 007662.7	Neurod1	ENSRNOG00 000005609	neuronal differentiation 1 Source RGD Symbol Acc 3165
D11	UPFR1116688	ENSRNOT00000 036838.4	Nfkb1	ENSRNOG00 000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
D12	UPFR1108047	ENSRNOT00000 011453.5	Nkx2-1	ENSRNOG00 000008644	NK2 homeobox 1 Source RGD Symbol Acc 3866
E01	UPFR1032783	ENSRNOT00000 013058.4	Nos3	ENSRNOG00 000009348	nitric oxide synthase 3 Source RGD Symbol Acc 3186
E02	UPFR1109721	ENSRNOT00000 011851.3	Nrf1	ENSRNOG00 000008752	nuclear respiratory factor 1 Source RGD Symbol Acc 1304603
E03	UPFR1036287	ENSRNOT00000 006361.6	Nsf	ENSRNOG00 000003905	N-ethylmaleimide sensitive factor, vesicle fusing ATPase Source RGD Symbol Acc 621594
E04	UPFR1022638	ENSRNOT00000 004232.5	Parp1	ENSRNOG00 000003084	poly (ADP-ribose) polymerase 1 Source RGD Symbol Acc 2053
E05	UPFR1048236	ENSRNOT00000 071942.1	Pdx1	ENSRNOG00 000046458	pancreatic and duodenal homeobox 1 Source RGD Symbol Acc 62387
E06	UPFR1091879	ENSRNOT00000 066179.2	Pik3cd	ENSRNOG00 000016846	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta Source RGD Symbol Acc 1310990
E07	UPFR1035231	ENSRNOT00000 075057.1	Pik3r1	ENSRNOG00 000018903	phosphoinositide-3-kinase regulatory subunit 1 Source RGD Symbol Acc 3329
E08	UPFR1039308	ENSRNOT00000 030082.2	Ppara	ENSRNOG00 000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
E09	UPFR1091351	ENSRNOT00000 051858.5	Pparg	ENSRNOG00 000008839	peroxisome proliferator-activated receptor gamma Source RGD Symbol Acc 3371
E10	UPFR1107303	ENSRNOT00000 006071.5	Ppargc1a	ENSRNOG00 000004473	PPARG coactivator 1 alpha Source RGD Symbol Acc 620925
E11	UPFR1035305	ENSRNOT00000 014309.4	Pipn1	ENSRNOG00 000010574	protein tyrosine phosphatase, non-receptor type 1 Source RGD Symbol Acc 61965
E12	UPFR1053288	ENSRNOT00000 009183.5	Pygl	ENSRNOG00 000006388	glycogen phosphorylase L Source RGD Symbol Acc 620687
F01	UPFR1026183	ENSRNOT00000 049337.5	Rab4a	ENSRNOG00 000017467	RAB4A, member RAS oncogene family Source RGD Symbol Acc 3529
F02	UPFR1112127	ENSRNOT00000 091197.1	Retn	ENSRNOG00 000001001	resistin Source RGD Symbol Acc 628781
F03	UPFR1104551	ENSRNOT00000 003733.6	Sell	ENSRNOG00 000002776	selectin L Source RGD Symbol Acc 3655
F04	UPFR1051798	ENSRNOT00000 001916.2	Serpine1	ENSRNOG00 000001414	serpin family E member 1 Source RGD Symbol Acc 3249
F05	UPFR1051651	ENSRNOT00000 078519.1	Slc14a2	ENSRNOG00 000056021	solute carrier family 14 member 2 Source RGD Symbol Acc 3689
F06	UPFR1026140	ENSRNOT00000 023256.5	Slc2a4	ENSRNOG00 000017226	solute carrier family 2 member 4 Source RGD Symbol Acc 2711
F07	UPFR1037406	ENSRNOT00000 074392.2	AABR0705 3516.1	ENSRNOG00 000050552	
F08	UPFR1107645	ENSRNOT00000 007998.7	Snap25	ENSRNOG00 000006037	synaptosomal-associated protein 25 Source MGI Symbol Acc MGI 98331
F09	UPFR1090502	ENSRNOT00000 025794.4	Sod2	ENSRNOG00 000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
F10	UPFR1104408	ENSRNOT00000 004753.5	Srebf1	ENSRNOG00 000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
F11	UPFR1115519	ENSRNOT00000 082121.1	Stx4	ENSRNOG00 000019302	syntaxin 4 Source RGD Symbol Acc 621019
F12	UPFR1028140	ENSRNOT00000 021178.8	Stxbp1	ENSRNOG00 000015420	syntaxin binding protein 1 Source RGD Symbol Acc 3785
G01	UPFR1026668	ENSRNOT00000 001322.4	Stxbp2	ENSRNOG00 000000994	syntaxin binding protein 2 Source RGD Symbol Acc 619967
G02	UPFR1088013	ENSRNOT00000 092852.1	Stxbp4	ENSRNOG00 000032768	syntaxin binding protein 4 Source RGD Symbol Acc 1307903
G03	UPFR1103881	ENSRNOT00000 028051.4	Tgfb1	ENSRNOG00 000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
G04	UPFR1098022	ENSRNOT00000 079677.1	LOC10369 4380	ENSRNOG00 000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G05	UPFR1079067	ENSRNOT00000 048529.4	Tnfrsf1a	ENSRNOG00 000031312	TNF receptor superfamily member 1A Source RGD Symbol Acc 621237
G06	UPFR1064277	ENSRNOT00000 022478.4	Tnfrsf1b	ENSRNOG00 000016575	TNF receptor superfamily member 1B Source RGD Symbol Acc 621238
G07	UPFR1067796	ENSRNOT00000 009840.5	Trib3	ENSRNOG00 000007319	tribbles pseudokinase 3 Source RGD Symbol Acc 708432
G08	UPFR1016940	ENSRNOT00000 024156.5	Ucp2	ENSRNOG00 000017854	uncoupling protein 2 Source RGD Symbol Acc 3932
G09	UPFR1057949	ENSRNOT00000 057295.3	Vamp2	ENSRNOG00 000006989	vesicle-associated membrane protein 2 Source RGD Symbol Acc 3949
G10	UPFR1050461	ENSRNOT00000 051554.4	Vamp3	ENSRNOG00 000030055	vesicle-associated membrane protein 3 Source RGD Symbol Acc 61880
G11	UPFR1029860	ENSRNOT00000 020681.6	Vapa	ENSRNOG00 000014765	VAMP associated protein A Source RGD Symbol Acc 61803
G12	UPFR1117908	ENSRNOT00000 026559.5	Vegfa	ENSRNOG00 000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
H01	UPFR1132952	ENSRNOT00000 080216.1	Actb	ENSRNOG00 000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000 023017.5	B2m	ENSRNOG00 000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000 065935.3	Hprt1	ENSRNOG00 000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000 017468.2	Ldha	ENSRNOG00 000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000 018820.5	Rplp1	ENSRNOG00 000013874	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.

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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