

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

## Mouse Diabetes

Cat. no. 249955 UPMM-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	Agf	Akt2	Aqp2	Cd5	Ccr2	Cd28	Ceacam1	Cebpa
B	Ctla4	Dpp4	Dusp4	Enpp1	Fbp1	Foxc2	Foxg1	Foxp3	G6pc	G6pd2	Gcg	Gcgr
C	Glip1r	Gpd1	Gsk3b	Hmax1	Hnf1b	Hnf4a	Icam1	Ide	Ifng	Igfbp5	Ikbb	Il10
D	Il12b	Il4ra	Il6	Inpp1	Ins1	Irs1	Mapk14	Mapk8	Neurod1	Nfb1	Nos3	Nrf1
E	Nsf	Parp1	Pax4	Pck1	Pdx1	Pikfb3	Pik3cd	Pik3r1	Ppara	Pparg	Ppargc1a	Ptpn1
F	Pygl	Rab4a	Reln	Sell	Serpine1	Slc14a2	Slc2a4	Snap23	Snap25	Sod2	Srebf1	Stx4a
G	Stxbp1	Stxbp4	Tgfb1	Tnf	Tnfrsf1a	Tnfrsf1b	Trib3	Ucp2	Vamp2	Vamp3	Vapa	Vegfa
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	QIC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM092937 6	ENSMUST00000 151657.1	Ace	ENSMUSG00 000020681	angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 Source MGI Symbol Acc MGI 87874
A02	UPFM097540 5	ENSMUST00000 007131.15	Acly	ENSMUSG00 000020917	ATP citrate lyase Source MGI Symbol Acc MGI 103251
A03	UPFM094894 6	ENSMUST00000 159068.1	Adra1a	ENSMUSG00 000045875	adrenergic receptor, alpha 1a Source MGI Symbol Acc MGI 104773
A04	UPFM069450 3	ENSMUST00000 211346.1	Adrb3	ENSMUSG00 000031489	adrenergic receptor, beta 3 Source MGI Symbol Acc MGI 87939
A05	UPFM088419 7	ENSMUST00000 063278.6	Agt	ENSMUSG00 000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963
A06	UPFM074464 2	ENSMUST00000 138459.7	Akt2	ENSMUSG00 000004056	thymoma viral proto-oncogene 2 Source MGI Symbol Acc MGI 104874
A07	UPFM067927 0	ENSMUST00000 023752.5	Aqp2	ENSMUSG00 000023013	aquaporin 2 Source MGI Symbol Acc MGI 1096865
A08	UPFM078318 2	ENSMUST00000 035938.2	Ccl5	ENSMUSG00 000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A09	UPFM064396 1	ENSMUST00000 168841.2	Ccr2	ENSMUSG00 000049103	chemokine (C-C motif) receptor 2 Source MGI Symbol Acc MGI 106185
A10	UPFM073617 9	ENSMUST00000 153207.1	Cd28	ENSMUSG00 000026012	CD28 antigen Source MGI Symbol Acc MGI 88327
A11	UPFM098052 0	ENSMUST00000 098668.2	Ceacam1	ENSMUSG00 000074272	carcinoembryonic antigen-related cell adhesion molecule 1 Source MGI Symbol Acc MGI 1347245
A12	UPFM099260 7	ENSMUST00000 042985.10	Cebpa	ENSMUSG00 000034957	CCAAT/enhancer binding protein (C/EBP), alpha Source MGI Symbol Acc MGI 99480
B01	UPFM090439 4	ENSMUST00000 027164.8	Ctla4	ENSMUSG00 000026011	cytotoxic T-lymphocyte-associated protein 4 Source MGI Symbol Acc MGI 88556
B02	UPFM077525 3	ENSMUST00000 149306.1	Dpp4	ENSMUSG00 000035000	dipeptidylpeptidase 4 Source MGI Symbol Acc MGI 94919
B03	UPFM083593 0	ENSMUST00000 033930.4	Dusp4	ENSMUSG00 000031530	dual specificity phosphatase 4 Source MGI Symbol Acc MGI 2442191
B04	UPFM081866 3	ENSMUST00000 135846.1	Enpp1	ENSMUSG00 000037370	ectonucleotide pyrophosphatase/phosphodiesterase 1 Source MGI Symbol Acc MGI 97370
B05	UPFM072819 2	ENSMUST00000 150013.1	Fbp1	ENSMUSG00 000069805	fructose bisphosphatase 1 Source MGI Symbol Acc MGI 95492
B06	UPFM070963 5	ENSMUST00000 054691.7	Foxc2	ENSMUSG00 000046714	forkhead box C2 Source MGI Symbol Acc MGI 1347481
B07	UPFM070685 1	ENSMUST00000 179669.2	Foxg1	ENSMUSG00 000020950	forkhead box G1 Source MGI Symbol Acc MGI 1347464
B08	UPFM072970 2	ENSMUST00000 234479.1	Foxp3	ENSMUSG00 000039521	forkhead box P3 Source MGI Symbol Acc MGI 1891436
B09	UPFM069116 4	ENSMUST00000 019469.2	G6pc	ENSMUSG00 000078650	glucose-6-phosphatase, catalytic Source MGI Symbol Acc MGI 95607
B10	UPFM098032 8	ENSMUST00000 053876.4	G6pd2	ENSMUSG00 000089992	glucose-6-phosphate dehydrogenase 2 Source MGI Symbol Acc MGI 105977
B11	UPFM079261 6	ENSMUST00000 136686.1	Gcg	ENSMUSG00 000000394	glucagon Source MGI Symbol Acc MGI 95674
B12	UPFM097461 2	ENSMUST00000 026119.7	Gcgr	ENSMUSG00 000025127	glucagon receptor Source MGI Symbol Acc MGI 99572
C01	UPFM082239 4	ENSMUST00000 236038.1	Glp1r	ENSMUSG00 000024027	glucagon-like peptide 1 receptor Source MGI Symbol Acc MGI 99571
C02	UPFM084379 3	ENSMUST00000 162194.1	Gpd1	ENSMUSG00 000023019	glycerol-3-phosphate dehydrogenase 1 (soluble) Source MGI Symbol Acc MGI 95679
C03	UPFM098687 7	ENSMUST00000 114750.1	Gsk3b	ENSMUSG00 000022812	glycogen synthase kinase 3 beta Source MGI Symbol Acc MGI 1861437
C04	UPFM070898 7	ENSMUST00000 005548.7	Hmox1	ENSMUSG00 000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
C05	UPFM091514 3	ENSMUST00000 021016.9	Hnf1b	ENSMUSG00 000020679	HNF1 homeobox B Source MGI Symbol Acc MGI 98505
C06	UPFM089220 5	ENSMUST00000 137449.1	Hnf4a	ENSMUSG00 000017950	hepatic nuclear factor 4, alpha Source MGI Symbol Acc MGI 109128
C07	UPFM084326 4	ENSMUST00000 215003.1	Icam1	ENSMUSG00 000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
C08	UPFM079176 0	ENSMUST00000 154308.1	Ide	ENSMUSG00 000056999	insulin degrading enzyme Source MGI Symbol Acc MGI 96412
C09	UPFM117295 0	ENSMUST00000 068592.4	Iifng	ENSMUSG00 000055170	interferon gamma Source MGI Symbol Acc MGI 107656
C10	UPFM069504 1	ENSMUST00000 137339.1	Igfbp5	ENSMUSG00 000026185	insulin-like growth factor binding protein 5 Source MGI Symbol Acc MGI 96440
	UPFM086154	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	1	146212.7	Ikbbk	000031537	inhibitor of kappaB kinase beta Source MGI Symbol Acc MGI 1338071
C12	UPFM117295 1	ENSMUST00000 016673.5	Il10	ENSMUSG00 000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
D01	UPFM078502 0	ENSMUST00000 170513.2	Il12b	ENSMUSG00 000004296	interleukin 12b Source MGI Symbol Acc MGI 96540
D02	UPFM095561 1	ENSMUST00000 206217.1	Il4ra	ENSMUSG00 000030748	interleukin 4 receptor, alpha Source MGI Symbol Acc MGI 105367
D03	UPFM072909 9	ENSMUST00000 195978.4	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D04	UPFM091447 6	ENSMUST00000 210116.1	Inpp1	ENSMUSG00 000032737	inositol polyphosphate phosphatase-like 1 Source MGI Symbol Acc MGI 1333787
D05	UPFM086188 0	ENSMUST00000 039652.5	Ins1	ENSMUSG00 000035804	insulin I Source MGI Symbol Acc MGI 96572
D06	UPFM068140 3	ENSMUST00000 069799.2	Irs1	ENSMUSG00 000055980	insulin receptor substrate 1 Source MGI Symbol Acc MGI 99454
D07	UPFM074684 8	ENSMUST00000 004990.13	Mapk14	ENSMUSG00 000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
D08	UPFM091565 7	ENSMUST00000 111944.9	Mapk8	ENSMUSG00 000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
D09	UPFM066462 4	ENSMUST00000 041099.4	Neurod1	ENSMUSG00 000034701	neurogenic differentiation 1 Source MGI Symbol Acc MGI 1339708
D10	UPFM098758 7	ENSMUST00000 029812.13	Nfkb1	ENSMUSG00 000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
D11	UPFM067358 1	ENSMUST00000 115090.5	Nos3	ENSMUSG00 000028978	nitric oxide synthase 3, endothelial cell Source MGI Symbol Acc MGI 97362
D12	UPFM079895 8	ENSMUST00000 069831.14	Nrf1	ENSMUSG00 000058440	nuclear respiratory factor 1 Source MGI Symbol Acc MGI 1332235
E01	UPFM097647 5	ENSMUST00000 133774.3	Nsf	ENSMUSG00 000034187	N-ethylmaleimide sensitive fusion protein Source MGI Symbol Acc MGI 104560
E02	UPFM093642 0	ENSMUST00000 193238.1	Parp1	ENSMUSG00 000026496	poly (ADP-ribose) polymerase family, member 1 Source MGI Symbol Acc MGI 1340806
E03	UPFM100876 6	ENSMUST00000 031718.13	Pax4	ENSMUSG00 000029706	paired box 4 Source MGI Symbol Acc MGI 97488
E04	UPFM090146 6	ENSMUST00000 150629.7	Pck1	ENSMUSG00 000027513	phosphoenolpyruvate carboxykinase 1, cytosolic Source MGI Symbol Acc MGI 97501
E05	UPFM078010 9	ENSMUST00000 085591.6	Pdx1	ENSMUSG00 000029644	pancreatic and duodenal homeobox 1 Source MGI Symbol Acc MGI 102851
E06	UPFM072440 9	ENSMUST00000 195779.5	Pfkfb3	ENSMUSG00 000026773	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 3 Source MGI Symbol Acc MGI 2181202
E07	UPFM092078 1	ENSMUST00000 134534.7	Pik3cd	ENSMUSG00 000039936	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta Source MGI Symbol Acc MGI 1098211
E08	UPFM073586 5	ENSMUST00000 185795.1	Pik3r1	ENSMUSG00 000041417	phosphoinositide-3-kinase regulatory subunit 1 Source MGI Symbol Acc MGI 97583
E09	UPFM096943 9	ENSMUST00000 138813.7	Ppara	ENSMUSG00 000022383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
E10	UPFM084296 6	ENSMUST00000 203732.2	Pparg	ENSMUSG00 000000440	peroxisome proliferator activated receptor gamma Source MGI Symbol Acc MGI 97747
E11	UPFM095044 2	ENSMUST00000 031059.13	Ppargc1a	ENSMUSG00 000029167	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha Source MGI Symbol Acc MGI 1342774
E12	UPFM096458 5	ENSMUST00000 147210.7	Ptgn1	ENSMUSG00 000027540	protein tyrosine phosphatase, non-receptor type 1 Source MGI Symbol Acc MGI 97805
F01	UPFM086691 8	ENSMUST00000 166609.1	Pygl	ENSMUSG00 000021069	liver glycogen phosphorylase Source MGI Symbol Acc MGI 97829
F02	UPFM078656 6	ENSMUST00000 118535.7	Rab4a	ENSMUSG00 000019478	RAB4A, member RAS oncogene family Source MGI Symbol Acc MGI 105069
F03	UPFM080373 5	ENSMUST00000 012849.14	Refn	ENSMUSG00 000012705	resistin Source MGI Symbol Acc MGI 1888506
F04	UPFM077751 1	ENSMUST00000 097491.9	Sell	ENSMUSG00 000026581	selectin, lymphocyte Source MGI Symbol Acc MGI 98279
F05	UPFM070788 6	ENSMUST00000 041388.10	Serpine1	ENSMUSG00 000037411	serine (or cysteine) peptidase inhibitor, clade E, member 1 Source MGI Symbol Acc MGI 97608
F06	UPFM081041 1	ENSMUST00000 235389.1	Slc14a2	ENSMUSG00 000024552	solute carrier family 14 (urea transporter), member 2 Source MGI Symbol Acc MGI 1351653
F07	UPFM070742 3	ENSMUST00000 018710.12	Slc2a4	ENSMUSG00 000018566	solute carrier family 2 (facilitated glucose transporter), member 4 Source MGI Symbol Acc MGI 95758
F08	UPFM087564 9	ENSMUST00000 142278.1	Snap23	ENSMUSG00 000027287	synaptosomal-associated protein 23 Source MGI Symbol Acc MGI 109356
F09	UPFM072799 0	ENSMUST00000 028727.10	Snap25	ENSMUSG00 000027273	synaptosomal-associated protein 25 Source MGI Symbol Acc MGI 98331
F10	UPFM095033 7	ENSMUST00000 233897.1	Sod2	ENSMUSG00 000006818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM0631103	ENSMUST00000149238.1	Srebf1	ENSMUSG0000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
F12	UPFM0706457	ENSMUST00000152310.7	Stx4a	ENSMUSG0000030805	syntaxin 4A (placental) Source MGI Symbol Acc MGI 893577
G01	UPFM0637122	ENSMUST00000050000.15	Stxbp1	ENSMUSG0000026797	syntaxin binding protein 1 Source MGI Symbol Acc MGI 107363
G02	UPFM0716308	ENSMUST00000107872.7	Stxbp4	ENSMUSG0000020546	syntaxin binding protein 4 Source MGI Symbol Acc MGI 1342296
G03	UPFM0666880	ENSMUST00000171757.1	Tgfb1	ENSMUSG000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	UPFM0638471	ENSMUST00000025263.14	Tnf	ENSMUSG0000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G05	UPFM0704846	ENSMUST00000144524.1	Tnfrsf1a	ENSMUSG0000030341	tumor necrosis factor receptor superfamily, member 1a Source MGI Symbol Acc MGI 1314884
G06	UPFM0631986	ENSMUST00000143055.1	Tnfrsf1b	ENSMUSG0000028599	tumor necrosis factor receptor superfamily, member 1b Source MGI Symbol Acc MGI 1314883
G07	UPFM0714237	ENSMUST00000040312.6	Trib3	ENSMUSG0000032715	tribbles pseudokinase 3 Source MGI Symbol Acc MGI 1345675
G08	UPFM0966472	ENSMUST00000129324.7	Ucp2	ENSMUSG0000033685	uncoupling protein 2 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 109354
G09	UPFM0716618	ENSMUST00000146847.1	Vamp2	ENSMUSG0000020894	vesicle-associated membrane protein 2 Source MGI Symbol Acc MGI 1313277
G10	UPFM0852585	ENSMUST00000030797.3	Vamp3	ENSMUSG0000028955	vesicle-associated membrane protein 3 Source MGI Symbol Acc MGI 1321389
G11	UPFM0858612	ENSMUST00000024897.9	Vapa	ENSMUSG0000024091	vesicle-associated membrane protein, associated protein A Source MGI Symbol Acc MGI 1353561
G12	UPFM1172966	ENSMUST00000214739.1	Vegfa	ENSMUSG0000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
H01	UPFM1132946	ENSMUST00000163829.1	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM1132947	ENSMUST00000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM1132948	ENSMUST00000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM1132949	ENSMUST00000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM1132950	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG0000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM1126609	UPL_MGDC	MGDC	UPL_MGDC	Mouse 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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