

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

Mouse Mitochondria

Cat. no. 249955 UPMM-087ZR

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	Aifm2	Aip	Bak1	Bbc3	Bcl2	Bcl2l1	Bid	Bnip3	Cdln2a	Cox10	Cox18	Cpt1b
B	Cpt2	Dnajc19	Dnm1l	Fis1	Timm10b	Gppl1	Hsp90aa1	Hspd1	Immp11	Immp2l	Lpprc	Mfn1
C	Mfn2	Mipep	Mstl	Mtx2	Nefl	Opa1	Pmaip1	Rhot1	Rhot2	Sfn	Sh3glb1	Slc25a1
D	Slc25a10	Slc25a12	Slc25a13	Slc25a14	Slc25a15	Slc25a16	Slc25a17	Slc25a19	Slc25a2	Slc25a20	Slc25a21	Slc25a22
E	Slc25a23	Slc25a24	Slc25a25	Slc25a27	Slc25a3	Slc25a30	Slc25a31	Slc25a37	Slc25a4	Slc25a5	Sod1	Sod2
F	Stard3	Taz	Timm10	Timm17a	Timm17b	Timm22	Timm23	Timm44	Timm50	Timm8a1	Timm8b	Timm9
G	Tomm20	Tomm22	Tomm34	Tomm40	Tomm40l	Tomm70a	Trp53	Tspo	Ucp1	Ucp2	Ucp3	Uxt
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM074305 1	ENSMUST00000080099.5	Aifm2	ENSMUSG0000020085	apoptosis-inducing factor, mitochondrion-associated 2 Source MGI Symbol Acc MGI 1918611
A02	UPFM090606 8	ENSMUST00000236509.1	Aip	ENSMUSG0000024847	aryl-hydrocarbon receptor-interacting protein Source MGI Symbol Acc MGI 109622
A03	UPFM100989 2	ENSMUST00000078691.11	Bak1	ENSMUSG0000057789	BCL2-antagonist/killer 1 Source MGI Symbol Acc MGI 1097161
A04	UPFM094693 3	ENSMUST00000002152.12	Bbc3	ENSMUSG0000002083	BCL2 binding component 3 Source MGI Symbol Acc MGI 2181667
A05	UPFM063585 3	ENSMUST00000112751.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A06	UPFM066341 1	ENSMUST00000156688.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
A07	UPFM069030 4	ENSMUST00000161594.1	Bid	ENSMUSG0000004446	BH3 interacting domain death agonist Source MGI Symbol Acc MGI 108093
A08	UPFM076925 5	ENSMUST00000148970.1	Bnip3	ENSMUSG0000078566	BCL2/adenovirus E1B interacting protein 3 Source MGI Symbol Acc MGI 109326
A09	UPFM070277 6	ENSMUST00000107131.1	Cdkn2a	ENSMUSG0000044303	cyclin dependent kinase inhibitor 2A Source MGI Symbol Acc MGI 104738
A10	UPFM088438 2	ENSMUST00000049091.8	Cox10	ENSMUSG0000042148	heme A farnesyltransferase cytochrome c oxidase assembly factor 10 Source MGI Symbol Acc MGI 1917633
A11	UPFM065723 2	ENSMUST00000144898.3	Cox18	ENSMUSG0000035505	cytochrome c oxidase assembly protein 18 Source MGI Symbol Acc MGI 2448532
A12	UPFM095459 9	ENSMUST00000109313.8	Cpt1b	ENSMUSG0000078937	carnitine palmitoyltransferase 1b, muscle Source MGI Symbol Acc MGI 1098297
B01	UPFM091584 0	ENSMUST00000106720.8	Cpt2	ENSMUSG0000028607	carnitine palmitoyltransferase 2 Source MGI Symbol Acc MGI 109176
B02	UPFM080350 2	ENSMUST00000197111.1	Dnajc19	ENSMUSG0000027679	DnaJ heat shock protein family (Hsp40) member C19 Source MGI Symbol Acc MGI 1914963
B03	UPFM077045 0	ENSMUST00000096229.10	Dnm1l	ENSMUSG0000022789	dynamitin 1-like Source MGI Symbol Acc MGI 1921256
B04	UPFM071309 2	ENSMUST00000152658.1	Fis1	ENSMUSG0000019054	fission, mitochondrial 1 Source MGI Symbol Acc MGI 1913687
B05	UPFM089796 2	ENSMUST00000058333.9	Timm10b	ENSMUSG0000089847	translocase of inner mitochondrial membrane 10B Source MGI Symbol Acc MGI 1315196
B06	UPFM097013 4	ENSMUST00000031099.3	Grpel1	ENSMUSG0000029198	GrpE-like 1, mitochondrial Source MGI Symbol Acc MGI 1334417
B07	UPFM099789 5	ENSMUST00000155242.7	Hsp90aa1	ENSMUSG0000021270	heat shock protein 90, alpha (cytosolic), class A member 1 Source MGI Symbol Acc MGI 96250
B08	UPFM078732 4	ENSMUST00000144077.2	Hspd1	ENSMUSG0000025980	heat shock protein 1 (chaperonin) Source MGI Symbol Acc MGI 96242
B09	UPFM062806 1	ENSMUST00000037499.5	Immp1l	ENSMUSG0000042670	IMP1 inner mitochondrial membrane peptidase-like (S. cerevisiae) Source MGI Symbol Acc MGI 1913791
B10	UPFM086799 6	ENSMUST00000080160.3	Immp2l	ENSMUSG0000056899	IMP2 inner mitochondrial membrane peptidase-like (S. cerevisiae) Source MGI Symbol Acc MGI 2135611
B11	UPFM077427 7	ENSMUST00000161928.7	Lrpprc	ENSMUSG0000024120	leucine-rich PPR-motif containing Source MGI Symbol Acc MGI 1919666
B12	UPFM099002 4	ENSMUST00000140328.6	Mfn1	ENSMUSG0000027668	mitofusin 1 Source MGI Symbol Acc MGI 1914664
C01	UPFM089542 6	ENSMUST00000105716.8	Mfn2	ENSMUSG0000029020	mitofusin 2 Source MGI Symbol Acc MGI 2442230
C02	UPFM087014 8	ENSMUST00000223709.1	Mipep	ENSMUSG0000021993	mitochondrial intermediate peptidase Source MGI Symbol Acc MGI 1917728
C03	UPFM100965 5	ENSMUST00000137243.7	Msto1	ENSMUSG0000068922	misato 1, mitochondrial distribution and morphology regulator Source MGI Symbol Acc MGI 2385175
C04	UPFM065646 6	ENSMUST00000129284.1	Mtx2	ENSMUSG0000027099	metaxin 2 Source MGI Symbol Acc MGI 1859652
C05	UPFM076212 1	ENSMUST00000022639.7	Nefl	ENSMUSG0000022055	neurofilament, light polypeptide Source MGI Symbol Acc MGI 97313
C06	UPFM072888 5	ENSMUST00000160153.1	Opa1	ENSMUSG0000038084	OPA1, mitochondrial dynamin like GTPase Source MGI Symbol Acc MGI 1921393
C07	UPFM070769 2	ENSMUST00000025399.8	Pmaip1	ENSMUSG0000024521	phorbol-12-myristate-13-acetate-induced protein 1 Source MGI Symbol Acc MGI 1930146
C08	UPFM063090 5	ENSMUST00000151518.1	Rhot1	ENSMUSG0000017686	ras homolog family member T1 Source MGI Symbol Acc MGI 1926078
C09	UPFM097064 6	ENSMUST00000177470.7	Rhot2	ENSMUSG0000025733	ras homolog family member T2 Source MGI Symbol Acc MGI 2384892
C10	UPFM094111 4	ENSMUST00000057311.3	Sfn	ENSMUSG0000047281	stratifin Source MGI Symbol Acc MGI 1891831
	UPFM064673	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	1	199531.4	Sh3glb1	000037062	SH3-domain GRB2-like B1 (endophilin) Source MGI Symbol Acc MGI 1859730
C12	UPFM082734 9	ENSMUST00000 003622.15	Slc25a1	ENSMUSG00 000003528	solute carrier family 25 (mitochondrial carrier, citrate transporter), member 1 Source MGI Symbol Acc MGI 1345283
D01	UPFM066344 8	ENSMUST00000 144706.7	Slc25a10	ENSMUSG00 000025792	solute carrier family 25 (mitochondrial carrier, dicarboxylate transporter), member 10 Source MGI Symbol Acc MGI 1353497
D02	UPFM068692 0	ENSMUST00000 151937.7	Slc25a12	ENSMUSG00 000027010	solute carrier family 25 (mitochondrial carrier, Aralar), member 12 Source MGI Symbol Acc MGI 1926080
D03	UPFM089520 1	ENSMUST00000 015256.14	Slc25a13	ENSMUSG00 000015112	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 13 Source MGI Symbol Acc MGI 1354721
D04	UPFM099187 9	ENSMUST00000 114936.7	Slc25a14	ENSMUSG00 000031105	solute carrier family 25 (mitochondrial carrier, brain), member 14 Source MGI Symbol Acc MGI 1330823
D05	UPFM072968 9	ENSMUST00000 210020.1	Slc25a15	ENSMUSG00 000031482	solute carrier family 25 (mitochondrial carrier ornithine transporter), member 15 Source MGI Symbol Acc MGI 1342274
D06	UPFM088879 2	ENSMUST00000 144459.1	Slc25a16	ENSMUSG00 000071253	solute carrier family 25 (mitochondrial carrier, Graves disease autoantigen), member 16 Source MGI Symbol Acc MGI 1920382
D07	UPFM101163 5	ENSMUST00000 023040.8	Slc25a17	ENSMUSG00 000022404	solute carrier family 25 (mitochondrial carrier, peroxisomal membrane protein), member 17 Source MGI Symbol Acc MGI 1342248
D08	UPFM077589 6	ENSMUST00000 021089.10	Slc25a19	ENSMUSG00 000020744	solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 19 Source MGI Symbol Acc MGI 1914533
D09	UPFM096655 0	ENSMUST00000 058635.3	Slc25a2	ENSMUSG00 000050304	solute carrier family 25 (mitochondrial carrier, ornithine transporter) member 2 Source MGI Symbol Acc MGI 2137907
D10	UPFM065402 8	ENSMUST00000 195260.1	Slc25a20	ENSMUSG00 000032602	solute carrier family 25 (mitochondrial carnitine/acylcarnitine translocase), member 20 Source MGI Symbol Acc MGI 1928738
D11	UPFM093957 5	ENSMUST00000 160892.1	Slc25a21	ENSMUSG00 000035472	solute carrier family 25 (mitochondrial oxodicarboxylate carrier), member 21 Source MGI Symbol Acc MGI 2445059
D12	UPFM070190 0	ENSMUST00000 140602.7	Slc25a22	ENSMUSG00 000019082	solute carrier family 25 (mitochondrial carrier, glutamate), member 22 Source MGI Symbol Acc MGI 1915517
E01	UPFM076313 3	ENSMUST00000 040280.13	Slc25a23	ENSMUSG00 000046329	solute carrier family 25 (mitochondrial carrier phosphate carrier), member 23 Source MGI Symbol Acc MGI 1914222
E02	UPFM064362 1	ENSMUST00000 029477.10	Slc25a24	ENSMUSG00 000040322	solute carrier family 25 (mitochondrial carrier, phosphate carrier), member 24 Source MGI Symbol Acc MGI 1917160
E03	UPFM084544 3	ENSMUST00000 128611.3	Slc25a25	ENSMUSG00 000026819	solute carrier family 25 (mitochondrial carrier, phosphate carrier), member 25 Source MGI Symbol Acc MGI 1915913
E04	UPFM089377 1	ENSMUST00000 024705.5	Slc25a27	ENSMUSG00 000023912	solute carrier family 25, member 27 Source MGI Symbol Acc MGI 1921261
E05	UPFM069703 0	ENSMUST00000 163246.7	Slc25a3	ENSMUSG00 000061904	solute carrier family 25 (mitochondrial carrier, phosphate carrier), member 3 Source MGI Symbol Acc MGI 1353498
E06	UPFM080809 0	ENSMUST00000 227894.1	Slc25a30	ENSMUSG00 000022003	solute carrier family 25, member 30 Source MGI Symbol Acc MGI 1914804
E07	UPFM099642 2	ENSMUST00000 091184.8	Slc25a31	ENSMUSG00 000069041	solute carrier family 25 (mitochondrial carrier adenine nucleotide translocator), member 31 Source MGI Symbol Acc MGI 1920583
E08	UPFM071656 8	ENSMUST00000 184497.1	Slc25a37	ENSMUSG00 000034248	solute carrier family 25, member 37 Source MGI Symbol Acc MGI 1914962
E09	UPFM081497 7	ENSMUST00000 034049.4	Slc25a4	ENSMUSG00 000031633	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 4 Source MGI Symbol Acc MGI 1353495
E10	UPFM087152 8	ENSMUST00000 016463.3	Slc25a5	ENSMUSG00 000016319	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 5 Source MGI Symbol Acc MGI 1353496
E11	UPFM092762 0	ENSMUST00000 023707.10	Sod1	ENSMUSG00 000022982	superoxide dismutase 1, soluble Source MGI Symbol Acc MGI 98351
E12	UPFM095033 7	ENSMUST00000 233897.1	Sod2	ENSMUSG00 000006818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352
F01	UPFM083965 5	ENSMUST00000 018311.4	Stard3	ENSMUSG00 000018167	START domain containing 3 Source MGI Symbol Acc MGI 1929618
F02	UPFM082027 4	ENSMUST00000 147844.8	Taz	ENSMUSG00 000009995	tafazzin Source MGI Symbol Acc MGI 109626
F03	UPFM089248 9	ENSMUST00000 028470.9	Timm10	ENSMUSG00 000027076	translocase of inner mitochondrial membrane 10 Source MGI Symbol Acc MGI 1353429
F04	UPFM090629 6	ENSMUST00000 152706.1	Timm17a	ENSMUSG00 000062580	translocase of inner mitochondrial membrane 17a Source MGI Symbol Acc MGI 1343131
F05	UPFM065559 2	ENSMUST00000 146406.1	Timm17b	ENSMUSG00 000031158	translocase of inner mitochondrial membrane 17b Source MGI Symbol Acc MGI 1343176
F06	UPFM082366 6	ENSMUST00000 120699.7	Timm22	ENSMUSG00 000020843	translocase of inner mitochondrial membrane 22 Source MGI Symbol Acc MGI 1929742
F07	UPFM090274 6	ENSMUST00000 170331.7	Timm23	ENSMUSG00 000013701	translocase of inner mitochondrial membrane 23 Source MGI Symbol Acc MGI 1858317
F08	UPFM085963 4	ENSMUST00000 160371.8	Timm44	ENSMUSG00 000002949	translocase of inner mitochondrial membrane 44 Source MGI Symbol Acc MGI 1343262
F09	UPFM063819 3	ENSMUST00000 081946.4	Timm50	ENSMUSG00 000003438	translocase of inner mitochondrial membrane 50 Source MGI Symbol Acc MGI 1913775
F10	UPFM066763 2	ENSMUST00000 054213.4	Timm8a1	ENSMUSG00 000048007	translocase of inner mitochondrial membrane 8A1 Source MGI Symbol Acc MGI 1353433

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM062849 5	ENSMUST00000 044051.5	Timm8b	ENSMUSG00 000039016	translocase of inner mitochondrial membrane 8B Source MGI Symbol Acc MGI 1353424
F12	UPFM076633 0	ENSMUST00000 221892.1	Timm9	ENSMUSG00 000021079	translocase of inner mitochondrial membrane 9 Source MGI Symbol Acc MGI 1353436
G01	UPFM098697 0	ENSMUST00000 179857.2	Tomm20	ENSMUSG00 000093904	translocase of outer mitochondrial membrane 20 Source MGI Symbol Acc MGI 1915202
G02	UPFM095545 3	ENSMUST00000 023062.4	Tomm22	ENSMUSG00 000022427	translocase of outer mitochondrial membrane 22 Source MGI Symbol Acc MGI 2450248
G03	UPFM086519 7	ENSMUST00000 109384.9	Tomm34	ENSMUSG00 000018322	translocase of outer mitochondrial membrane 34 Source MGI Symbol Acc MGI 1914395
G04	UPFM079929 0	ENSMUST00000 174476.1	Tomm40	ENSMUSG00 000002984	translocase of outer mitochondrial membrane 40 Source MGI Symbol Acc MGI 1858259
G05	UPFM062070 5	ENSMUST00000 147246.1	Tomm40l	ENSMUSG00 000005674	translocase of outer mitochondrial membrane 40-like Source MGI Symbol Acc MGI 3589112
G06	UPFM073200 9	ENSMUST00000 166897.2	Tomm70a	ENSMUSG00 000022752	translocase of outer mitochondrial membrane 70A Source MGI Symbol Acc MGI 106295
G07	UPFM066913 3	ENSMUST00000 171247.7	Trp53	ENSMUSG00 000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G08	UPFM075354 2	ENSMUST00000 047419.7	Tspo	ENSMUSG00 000041736	translocator protein Source MGI Symbol Acc MGI 88222
G09	UPFM095120 9	ENSMUST00000 034146.4	Ucp1	ENSMUSG00 000031710	uncoupling protein 1 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 98894
G10	UPFM096647 2	ENSMUST00000 129324.7	Ucp2	ENSMUSG00 000033685	uncoupling protein 2 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 109354
G11	UPFM072555 8	ENSMUST00000 128044.7	Ucp3	ENSMUSG00 000032942	uncoupling protein 3 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 1099787
G12	UPFM087581 9	ENSMUST00000 123836.1	Uxt	ENSMUSG00 000001134	ubiquitously expressed prefoldin like chaperone Source MGI Symbol Acc MGI 1277988
H01	UPFM113294 6	ENSMUST00000 163829.1	Actb	ENSMUSG00 000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM113294 7	ENSMUST00000 102476.4	B2m	ENSMUSG00 000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM113294 8	ENSMUST00000 117757.8	Gapdh	ENSMUSG00 000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM113294 9	ENSMUST00000 026613.13	Gusb	ENSMUSG00 000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM113295 0	ENSMUST00000 166469.7	Hsp90ab1	ENSMUSG00 000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM112660 9	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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 μ l QuantiNova Probe RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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 or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.