

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

## Mouse Molecular Toxicology PathwayFinder

Cat. no. 249950 SBMM-401ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA 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 PCR System 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	Abcb4	Abcc2	Abcc3	Acadm	Acadvl	Acox1	Adh1	Adm2	Akr1c21	Akt1	Arrdc3	Asah1
B	Asb1	Asns	Alm	Alpb6l	Bcl2	Bcl2l1	Brcal	Casp8	Casp9	Cd36	Cdkn1a	Cpt1a
C	Cpt1b	Cpt2	Cyb561d1	Cyld	Cyp1a1	Cyp1a2	Cyp2d22	Cyp2e1	Cyp3a11	Dnajb1	Dnajb9	Erc2
D	F2	Fasl	Fosn	Fhl2	Gclm	Grb2	Herpud1	Hmox1	Hpn	Hpx	Hsf1	Hspa1a
E	Hspa1b	Hspa4	Hspa5	Hspa8	Hspb1	Hspd1	Inhbe	Lpl	Lss	Lyz2	Mag	Mdm2
F	Metap2	Mki67	Ncoa7	Nqo1	Nr5a2	Slc51a	Parp2	Pdyn	Ppara	Pvr	Rad51	Rdx
G	Scd1	Serpina3n	Slc25a25	Slc2a3	Slc7a11	Srebfl	Tagln	Trib3	Trim10	Txn14b	Uhrf1	Wipi1
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0989061	ENSMUST00000197458.1	Abcb4	ENSMUSG0000042476	ATP-binding cassette, sub-family B (MDR/TAP), member 4 Source MGI Symbol Acc MGI 97569
A02	SBM1002449	ENSMUST0000026208.5	Abcc2	ENSMUSG0000025194	ATP-binding cassette, sub-family C (CFTR/MRP), member 2 Source MGI Symbol Acc MGI 1352447
A03	SBM0751766	ENSMUST00000151124.7	Abcc3	ENSMUSG0000020865	ATP-binding cassette, sub-family C (CFTR/MRP), member 3 Source MGI Symbol Acc MGI 1923658
A04	SBM0928276	ENSMUST00000156310.1	Acadm	ENSMUSG0000062908	acyl-Coenzyme A dehydrogenase, medium chain Source MGI Symbol Acc MGI 87867
A05	SBM1038802	ENSMUST00000137187.7	Acadvl	ENSMUSG0000018574	acyl-Coenzyme A dehydrogenase, very long chain Source MGI Symbol Acc MGI 895149
A06	SBM1069471	ENSMUST00000066587.11	Acox1	ENSMUSG0000020777	acyl-Coenzyme A oxidase 1, palmitoyl Source MGI Symbol Acc MGI 1330812
A07	SBM0686762	ENSMUST0000004232.9	Adh1	ENSMUSG0000074207	alcohol dehydrogenase 1 (class I) Source MGI Symbol Acc MGI 87921
A08	SBM0834335	ENSMUST00000066991.6	Adm2	ENSMUSG0000054136	adenomedullin 2 Source MGI Symbol Acc MGI 2675256
A09	SBM0915453	ENSMUST00000021628.3	Akr1c21	ENSMUSG0000021207	aldo-keto reductase family 1, member C21 Source MGI Symbol Acc MGI 1924587
A10	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG0000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
A11	SBM0778573	ENSMUST00000159856.1	Arrdc3	ENSMUSG0000074794	arrestin domain containing 3 Source MGI Symbol Acc MGI 2145242
A12	SBM0976431	ENSMUST00000034000.14	Asah1	ENSMUSG0000031591	N-acylsphingosine amidohydrolase 1 Source MGI Symbol Acc MGI 1277124
B01	SBM0685714	ENSMUST00000190484.6	Asb1	ENSMUSG0000026311	ankyrin repeat and SOCS box-containing 1 Source MGI Symbol Acc MGI 1929735
B02	SBM1026394	ENSMUST00000139596.7	Asns	ENSMUSG0000029752	asparagine synthetase Source MGI Symbol Acc MGI 1350929
B03	SBM0745660	ENSMUST00000150244.1	Atm	ENSMUSG0000034218	ataxia telangiectasia mutated Source MGI Symbol Acc MGI 107202
B04	SBM0708428	ENSMUST00000025482.9	Atp8b1	ENSMUSG0000039529	ATPase, class I, type 8B, member 1 Source MGI Symbol Acc MGI 1859665
B05	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
B06	SBM0751583	ENSMUST00000134357.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
B07	SBM0935779	ENSMUST00000142086.2	Brca1	ENSMUSG0000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
B08	SBM0772558	ENSMUST00000027189.14	Casp8	ENSMUSG0000026029	caspase 8 Source MGI Symbol Acc MGI 1261423
B09	SBM0686567	ENSMUST00000097805.10	Casp9	ENSMUSG0000028914	caspase 9 Source MGI Symbol Acc MGI 1277950
B10	SBM0818786	ENSMUST00000170051.7	Cd36	ENSMUSG0000002944	CD36 molecule Source MGI Symbol Acc MGI 107899
B11	SBM1034022	ENSMUST00000023829.7	Cdkn1a	ENSMUSG0000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
B12	SBM1029896	ENSMUST00000238027.1	Cpt1a	ENSMUSG0000024900	carnitine palmitoyltransferase 1a, liver Source MGI Symbol Acc MGI 1098296
C01	SBM0949787	ENSMUST00000109313.8	Cpt1b	ENSMUSG0000078937	carnitine palmitoyltransferase 1b, muscle Source MGI Symbol Acc MGI 1098297
C02	SBM0911444	ENSMUST00000030345.14	Cpt2	ENSMUSG0000028607	carnitine palmitoyltransferase 2 Source MGI Symbol Acc MGI 109176
C03	SBM0732303	ENSMUST00000155099.1	Cyb561d1	ENSMUSG0000048796	cytochrome b-561 domain containing 1 Source MGI Symbol Acc MGI 1919273
C04	SBM0870561	ENSMUST00000211554.1	Cyld	ENSMUSG0000036712	CYLD lysine 63 deubiquitinase Source MGI Symbol Acc MGI 1921506
C05	SBM0687229	ENSMUST00000216433.1	Cyp1a1	ENSMUSG0000032315	cytochrome P450, family 1, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88588
C06	SBM0864852	ENSMUST00000034860.4	Cyp1a2	ENSMUSG0000032310	cytochrome P450, family 1, subfamily a, polypeptide 2 Source MGI Symbol Acc MGI 88589
C07	SBM0892868	ENSMUST00000228986.1	Cyp2d22	ENSMUSG0000061740	cytochrome P450, family 2, subfamily d, polypeptide 22 Source MGI Symbol Acc MGI 1929474
C08	SBM1037941	ENSMUST00000209253.1	Cyp2e1	ENSMUSG0000025479	cytochrome P450, family 2, subfamily e, polypeptide 1 Source MGI Symbol Acc MGI 88607
C09	SBM0724906	ENSMUST00000035918.7	Cyp3a11	ENSMUSG0000056035	cytochrome P450, family 3, subfamily a, polypeptide 11 Source MGI Symbol Acc MGI 88609
C10	SBM0961660	ENSMUST00000005620.9	Dnajb1	ENSMUSG0000005483	DnaJ heat shock protein family (Hsp40) member B1 Source MGI Symbol Acc MGI 1931874
		ENSMUST00000000000.0		ENSMUSG00000000000.0	DnaJ heat shock protein family (Hsp40) member B9 Source MGI Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0795008	015049.4	Dnajb9	000014905	MGI 1351618
C12	SBM0850014	ENSMUST00000 062831.15	Ercc2	ENSMUSG00 000030400	excision repair cross-complementing rodent repair deficiency, complementation group 2 Source MGI Symbol Acc MGI 95413
D01	SBM0895867	ENSMUST00000 028681.14	F2	ENSMUSG00 000027249	coagulation factor II Source MGI Symbol Acc MGI 88380
D02	SBM0967876	ENSMUST00000 000834.3	Fas1	ENSMUSG00 000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
D03	SBM1047932	ENSMUST00000 206589.1	Fasn	ENSMUSG00 000025153	fatty acid synthase Source MGI Symbol Acc MGI 95485
D04	SBM0905899	ENSMUST00000 008280.13	Fhl2	ENSMUSG00 000008136	four and a half LIM domains 2 Source MGI Symbol Acc MGI 1338762
D05	SBM0944392	ENSMUST00000 029769.13	Gclm	ENSMUSG00 000028124	glutamate-cysteine ligase, modifier subunit Source MGI Symbol Acc MGI 104995
D06	SBM1054562	ENSMUST00000 106497.7	Grb2	ENSMUSG00 000059923	growth factor receptor bound protein 2 Source MGI Symbol Acc MGI 95805
D07	SBM0746216	ENSMUST00000 161085.7	Herpud1	ENSMUSG00 000031770	homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1 Source MGI Symbol Acc MGI 1927406
D08	SBM0936413	ENSMUST00000 005548.7	Hmox1	ENSMUSG00 000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
D09	SBM1074749	ENSMUST00000 165124.7	Hpn	ENSMUSG00 000001249	hepsin Source MGI Symbol Acc MGI 1196620
D10	SBM1029887	ENSMUST00000 033185.9	Hpx	ENSMUSG00 000030895	hemopexin Source MGI Symbol Acc MGI 105112
D11	SBM0680334	ENSMUST00000 230069.1	Hsf1	ENSMUSG00 000022556	heat shock factor 1 Source MGI Symbol Acc MGI 96238
D12	SBM0945329	ENSMUST00000 087328.3	Hspa1a	ENSMUSG00 000091971	heat shock protein 1A Source MGI Symbol Acc MGI 96244
E01	SBM0949001	ENSMUST00000 172753.1	Hspa1b	ENSMUSG00 000090877	heat shock protein 1B Source MGI Symbol Acc MGI 99517
E02	SBM0909157	ENSMUST00000 020630.7	Hspa4	ENSMUSG00 000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
E03	SBM1001113	ENSMUST00000 145466.1	Hspa5	ENSMUSG00 000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
E04	SBM0678268	ENSMUST00000 215526.1	Hspa8	ENSMUSG00 000015656	heat shock protein 8 Source MGI Symbol Acc MGI 105384
E05	SBM1021618	ENSMUST00000 005077.6	Hspb1	ENSMUSG00 000004951	heat shock protein 1 Source MGI Symbol Acc MGI 96240
E06	SBM0789113	ENSMUST00000 027123.14	Hspd1	ENSMUSG00 000025980	heat shock protein 1 (chaperonin) Source MGI Symbol Acc MGI 96242
E07	SBM0756206	ENSMUST00000 059718.5	Inhbe	ENSMUSG00 000047492	inhibin beta-E Source MGI Symbol Acc MGI 109269
E08	SBM1060657	ENSMUST00000 015712.14	Lpl	ENSMUSG00 000015568	lipoprotein lipase Source MGI Symbol Acc MGI 96820
E09	SBM0789895	ENSMUST00000 159013.7	Lss	ENSMUSG00 000033105	lanosterol synthase Source MGI Symbol Acc MGI 1336155
E10	SBM0672708	ENSMUST00000 092163.8	Lyz2	ENSMUSG00 000069516	lysozyme 2 Source MGI Symbol Acc MGI 96897
E11	SBM0954134	ENSMUST00000 188569.6	Mag	ENSMUSG00 000036634	myelin-associated glycoprotein Source MGI Symbol Acc MGI 96912
E12	SBM0989223	ENSMUST00000 020408.15	Mdm2	ENSMUSG00 000020184	transformed mouse 3T3 cell double minute 2 Source MGI Symbol Acc MGI 96952
F01	SBM1002852	ENSMUST00000 181091.7	Metap2	ENSMUSG00 000036112	methionine aminopeptidase 2 Source MGI Symbol Acc MGI 1929701
F02	SBM0976366	ENSMUST00000 211238.1	Mki67	ENSMUSG00 000031004	antigen identified by monoclonal antibody Ki 67 Source MGI Symbol Acc MGI 106035
F03	SBM0863422	ENSMUST00000 092610.11	Ncoa7	ENSMUSG00 000039697	nuclear receptor coactivator 7 Source MGI Symbol Acc MGI 2444847
F04	SBM0878519	ENSMUST00000 003947.8	Nqo1	ENSMUSG00 000003849	NAD(P)H dehydrogenase, quinone 1 Source MGI Symbol Acc MGI 103187
F05	SBM1044804	ENSMUST00000 192357.5	Nr5a2	ENSMUSG00 000026398	nuclear receptor subfamily 5, group A, member 2 Source MGI Symbol Acc MGI 1346834
F06	SBM0676636	ENSMUST00000 042042.8	Slc51a	ENSMUSG00 000035699	solute carrier family 51, alpha subunit Source MGI Symbol Acc MGI 2146634
F07	SBM0881717	ENSMUST00000 226880.1	Parp2	ENSMUSG00 000036023	poly (ADP-ribose) polymerase family, member 2 Source MGI Symbol Acc MGI 1341112
F08	SBM0795904	ENSMUST00000 152113.1	Pdyn	ENSMUSG00 000027400	prodynorphin Source MGI Symbol Acc MGI 97535
F09	SBM0952484	ENSMUST00000 138813.7	Ppara	ENSMUSG00 000022383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
F10	SBM0902050	ENSMUST00000 043517.7	Pvr	ENSMUSG00 000040511	poliovirus receptor Source MGI Symbol Acc MGI 107741

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0702001	ENSMUST00000110828.1	Rad51	ENSMUSG0000027323	RAD51 recombinase Source MGI Symbol Acc MGI 97890
F12	SBM0856664	ENSMUST00000061352.10	Rdx	ENSMUSG0000032050	radixin Source MGI Symbol Acc MGI 97887
G01	SBM0890897	ENSMUST00000236824.1	Scd1	ENSMUSG0000037071	stearoyl-Coenzyme A desaturase 1 Source MGI Symbol Acc MGI 98239
G02	SBM0672861	ENSMUST00000021506.5	Serpina3n	ENSMUSG0000021091	serine (or cysteine) peptidase inhibitor, clade A, member 3N Source MGI Symbol Acc MGI 105045
G03	SBM0710216	ENSMUST00000136361.7	Slc25a25	ENSMUSG0000026819	solute carrier family 25 (mitochondrial carrier, phosphate carrier), member 25 Source MGI Symbol Acc MGI 1915913
G04	SBM1000736	ENSMUST00000168801.1	Slc2a3	ENSMUSG0000003153	solute carrier family 2 (facilitated glucose transporter), member 3 Source MGI Symbol Acc MGI 95757
G05	SBM0737852	ENSMUST00000142932.2	Slc7a11	ENSMUSG0000027737	solute carrier family 7 (cationic amino acid transporter, y+ system), member 11 Source MGI Symbol Acc MGI 1347355
G06	SBM0984070	ENSMUST00000020846.7	Srebf1	ENSMUSG0000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
G07	SBM0866636	ENSMUST00000216035.1	Tagln	ENSMUSG0000032085	transgelin Source MGI Symbol Acc MGI 106012
G08	SBM1067338	ENSMUST00000040312.6	Trib3	ENSMUSG0000032715	tribbles pseudokinase 3 Source MGI Symbol Acc MGI 1345675
G09	SBM0879808	ENSMUST00000060524.10	Trim10	ENSMUSG00000073400	tripartite motif-containing 10 Source MGI Symbol Acc MGI 1338757
G10	SBM0680993	ENSMUST00000178445.1	Txn14b	ENSMUSG00000031723	thioredoxin-like 4B Source MGI Symbol Acc MGI 2443724
G11	SBM0874436	ENSMUST00000001258.14	Uhrf1	ENSMUSG0000001228	ubiquitin-like, containing PHD and RING finger domains, 1 Source MGI Symbol Acc MGI 1338889
G12	SBM0944548	ENSMUST00000103060.9	Wipi1	ENSMUSG0000041895	WD repeat domain, phosphoinositide interacting 1 Source MGI Symbol Acc MGI 1261864
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG0000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	SBM1218554	Sybr_MGDC	MGDC	Sybr_MGDC	Mouse Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208052

\*Larger kit sizes available.

The QuantiNova LNA 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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