

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

## Mouse PPAR Targets

Cat. no. 249950 SBMM-149ZR

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	Acox2	Acadl	Acadm	Acox1	Acox3	Acls1	Acls3	Acls4	Acls5	Adipoq	Angptl4	Apoa1
B	Apoa5	Apoc3	Apoe	Helz2	Cd36	Chd9	Clu	Cpt1a	Cpt1b	Cpt2	Creb1	Crebbp
C	Cyp27a1	Cyp4a10	Cyp7a1	Dgat1	Ech1	Ehhadh	Eln	Ep300	Eif4h	Fabp1	Fabp2	Fabp3
D	Fabp4	Fabp5	Fabp6	Fabp7	Fads2	Fgr	Gk	Hif1a	Hmgcs2	Hspd1	Ilk	Kif10
E	Lpl	Med1	Mlycd	Mmp9	Ncoa3	Ncoa6	Nrlh3	Olr1	Pck1	Pck2	Pdk1	Pltp
F	Ppara	Ppard	Pparg	Ppargc1a	Ppargc1b	Pprc1	Pten	Rxra	Rxb	Rxrg	Scd1	Sirt1
G	Slc22a5	Slc27a1	Slc27a2	Slc27a4	Slc27a5	Slc27a6	Smarcd3	Sorbs1	Src	Tgs1	Txnip	Ucp1
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	Q1C	Q1C	PPC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0980968	ENSMUST00000 041053.10	Acaa2	ENSMUSG00 000036880	acyl-Coenzyme A acyltransferase 2 (mitochondrial 3-oxoacyl-Coenzyme A thiolase) Source MGI Symbol Acc MGI 1098623
A02	SBM0841065	ENSMUST00000 027153.5	Acadl	ENSMUSG00 000026003	acyl-Coenzyme A dehydrogenase, long-chain Source MGI Symbol Acc MGI 87866
A03	SBM0928276	ENSMUST00000 156310.1	Acadm	ENSMUSG00 000062908	acyl-Coenzyme A dehydrogenase, medium chain Source MGI Symbol Acc MGI 87867
A04	SBM1069471	ENSMUST00000 066587.11	Acox1	ENSMUSG00 000020777	acyl-Coenzyme A oxidase 1, palmitoyl Source MGI Symbol Acc MGI 1330812
A05	SBM0895502	ENSMUST00000 201106.2	Acox3	ENSMUSG00 000029098	acyl-Coenzyme A oxidase 3, pristanoyl Source MGI Symbol Acc MGI 1933156
A06	SBM0793742	ENSMUST00000 211644.1	Acsl1	ENSMUSG00 000018796	acyl-CoA synthetase long-chain family member 1 Source MGI Symbol Acc MGI 102797
A07	SBM0941480	ENSMUST00000 142704.7	Acsl3	ENSMUSG00 000032883	acyl-CoA synthetase long-chain family member 3 Source MGI Symbol Acc MGI 1921455
A08	SBM0931597	ENSMUST00000 033634.4	Acsl4	ENSMUSG00 000031278	acyl-CoA synthetase long-chain family member 4 Source MGI Symbol Acc MGI 1354713
A09	SBM0675306	ENSMUST00000 043150.5	Acsl5	ENSMUSG00 000024981	acyl-CoA synthetase long-chain family member 5 Source MGI Symbol Acc MGI 1919129
A10	SBM0903115	ENSMUST00000 023593.5	Adipoq	ENSMUSG00 000022878	adiponectin, C1Q and collagen domain containing Source MGI Symbol Acc MGI 106675
A11	SBM0692606	ENSMUST00000 174872.1	Angptl4	ENSMUSG00 000002289	angiopoietin-like 4 Source MGI Symbol Acc MGI 1888999
A12	SBM0916212	ENSMUST00000 132155.1	Apoa1	ENSMUSG00 000032083	apolipoprotein A-I Source MGI Symbol Acc MGI 88049
B01	SBM0970398	ENSMUST00000 214202.1	Apoa5	ENSMUSG00 000032079	apolipoprotein A-V Source MGI Symbol Acc MGI 1913363
B02	SBM0912636	ENSMUST00000 118649.7	Apoc3	ENSMUSG00 000032081	apolipoprotein C-III Source MGI Symbol Acc MGI 88055
B03	SBM0912771	ENSMUST00000 173739.7	Apoe	ENSMUSG00 000002985	apolipoprotein E Source MGI Symbol Acc MGI 88057
B04	SBM0999059	ENSMUST00000 155049.1	Helz2	ENSMUSG00 000027580	helicase with zinc finger 2, transcriptional coactivator Source MGI Symbol Acc MGI 2385169
B05	SBM0818786	ENSMUST00000 170051.7	Cd36	ENSMUSG00 000002944	CD36 molecule Source MGI Symbol Acc MGI 107899
B06	SBM0954419	ENSMUST00000 209746.1	Chd9	ENSMUSG00 000056608	chromodomain helicase DNA binding protein 9 Source MGI Symbol Acc MGI 1924001
B07	SBM0933901	ENSMUST00000 153460.7	Clu	ENSMUSG00 000022037	clusterin Source MGI Symbol Acc MGI 88423
B08	SBM1029896	ENSMUST00000 238027.1	Cpt1a	ENSMUSG00 000024900	carnitine palmitoyltransferase 1a, liver Source MGI Symbol Acc MGI 1098296
B09	SBM0949787	ENSMUST00000 109313.8	Cpt1b	ENSMUSG00 000078937	carnitine palmitoyltransferase 1b, muscle Source MGI Symbol Acc MGI 1098297
B10	SBM0911444	ENSMUST00000 030345.14	Cpt2	ENSMUSG00 000028607	carnitine palmitoyltransferase 2 Source MGI Symbol Acc MGI 109176
B11	SBM0735214	ENSMUST00000 188855.6	Creb1	ENSMUSG00 000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
B12	SBM0926551	ENSMUST00000 205765.1	Crebbp	ENSMUSG00 000022521	CREB binding protein Source MGI Symbol Acc MGI 1098280
C01	SBM1013045	ENSMUST00000 027356.6	Cyp27a1	ENSMUSG00 000026170	cytochrome P450, family 27, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88594
C02	SBM0792650	ENSMUST00000 058785.9	Cyp4a10	ENSMUSG00 000066072	cytochrome P450, family 4, subfamily a, polypeptide 10 Source MGI Symbol Acc MGI 88611
C03	SBM0922584	ENSMUST00000 147346.1	Cyp7a1	ENSMUSG00 000028240	cytochrome P450, family 7, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 106091
C04	SBM0758167	ENSMUST00000 159908.1	Dgat1	ENSMUSG00 000022555	diacylglycerol O-acyltransferase 1 Source MGI Symbol Acc MGI 1333825
C05	SBM0676705	ENSMUST00000 132376.1	Ech1	ENSMUSG00 000053898	enoyl coenzyme A hydratase 1, peroxisomal Source MGI Symbol Acc MGI 1858208
C06	SBM0992271	ENSMUST00000 023559.6	Ehhadh	ENSMUSG00 000022853	enoyl-Coenzyme A, hydratase/3-hydroxyacyl Coenzyme A dehydrogenase Source MGI Symbol Acc MGI 1277964
C07	SBM0963634	ENSMUST00000 201856.1	Eln	ENSMUSG00 000029675	elastin Source MGI Symbol Acc MGI 95317
C08	SBM1065431	ENSMUST00000 190035.1	Ep300	ENSMUSG00 000055024	E1A binding protein p300 Source MGI Symbol Acc MGI 1276116
C09	SBM0866914	ENSMUST00000 029386.13	Efdh	ENSMUSG00 000027809	electron transferring flavoprotein, dehydrogenase Source MGI Symbol Acc MGI 106100
C10	SBM0729972	ENSMUST00000 067492.7	Fabp1	ENSMUSG00 000054422	fatty acid binding protein 1, liver Source MGI Symbol Acc MGI 95479
		ENSMUST00000		ENSMUSG00	

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
C11	SBM0934592	023820.5	Fabp2	ENSMUSG000023057	fatty acid binding protein 2, intestinal Source MGI Symbol Acc MGI 95478
C12	SBM0915423	ENSMUST00000 070532.7	Fabp3	ENSMUSG0000028773	fatty acid binding protein 3, muscle and heart Source MGI Symbol Acc MGI 95476
D01	SBM0719045	ENSMUST00000 029041.5	Fabp4	ENSMUSG0000062515	fatty acid binding protein 4, adipocyte Source MGI Symbol Acc MGI 88038
D02	SBM0695464	ENSMUST00000 029046.8	Fabp5	ENSMUSG0000027533	fatty acid binding protein 5, epidermal Source MGI Symbol Acc MGI 101790
D03	SBM1030650	ENSMUST00000 020672.4	Fabp6	ENSMUSG0000020405	fatty acid binding protein 6 Source MGI Symbol Acc MGI 96565
D04	SBM0966652	ENSMUST00000 020024.11	Fabp7	ENSMUSG0000019874	fatty acid binding protein 7, brain Source MGI Symbol Acc MGI 101916
D05	SBM0847658	ENSMUST00000 238023.1	Fads2	ENSMUSG0000024665	fatty acid desaturase 2 Source MGI Symbol Acc MGI 1930079
D06	SBM0872649	ENSMUST00000 138179.7	Fgr	ENSMUSG0000028874	FGR proto-oncogene, Src family tyrosine kinase Source MGI Symbol Acc MGI 95527
D07	SBM0796540	ENSMUST00000 124386.1	Gk	ENSMUSG0000025059	glycerol kinase Source MGI Symbol Acc MGI 106594
D08	SBM1003614	ENSMUST00000 110464.7	Hif1a	ENSMUSG0000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
D09	SBM0862891	ENSMUST00000 090746.2	Hmgcs2	ENSMUSG0000027875	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 2 Source MGI Symbol Acc MGI 101939
D10	SBM0789113	ENSMUST00000 027123.14	Hspd1	ENSMUSG0000025980	heat shock protein 1 (chaperonin) Source MGI Symbol Acc MGI 96242
D11	SBM0904671	ENSMUST00000 033182.9	Ilik	ENSMUSG0000030890	integrin linked kinase Source MGI Symbol Acc MGI 1195267
D12	SBM1054966	ENSMUST00000 074043.6	Klf10	ENSMUSG0000037465	Kruppel-like factor 10 Source MGI Symbol Acc MGI 1101353
E01	SBM1060657	ENSMUST00000 015712.14	Lpl	ENSMUSG0000015568	lipoprotein lipase Source MGI Symbol Acc MGI 96820
E02	SBM1024945	ENSMUST00000 126483.7	Med1	ENSMUSG0000018160	mediator complex subunit 1 Source MGI Symbol Acc MGI 1100846
E03	SBM1063186	ENSMUST00000 145121.1	Mlycd	ENSMUSG0000074064	malonyl-CoA decarboxylase Source MGI Symbol Acc MGI 1928485
E04	SBM1089430	ENSMUST00000 017881.2	Mmp9	ENSMUSG0000017737	matrix metallopeptidase 9 Source MGI Symbol Acc MGI 97011
E05	SBM0723993	ENSMUST00000 153507.1	Ncoa3	ENSMUSG0000027678	nuclear receptor coactivator 3 Source MGI Symbol Acc MGI 1276535
E06	SBM0915877	ENSMUST00000 043126.11	Ncoa6	ENSMUSG0000038369	nuclear receptor coactivator 6 Source MGI Symbol Acc MGI 1929915
E07	SBM0913125	ENSMUST00000 150654.7	Nrlh3	ENSMUSG000002108	nuclear receptor subfamily 1, group H, member 3 Source MGI Symbol Acc MGI 1352462
E08	SBM1042162	ENSMUST00000 183258.7	Olr1	ENSMUSG0000030162	oxidized low density lipoprotein (lectin-like) receptor 1 Source MGI Symbol Acc MGI 1261434
E09	SBM0953267	ENSMUST00000 029017.5	Pck1	ENSMUSG0000027513	phosphoenolpyruvate carboxykinase 1, cytosolic Source MGI Symbol Acc MGI 97501
E10	SBM1060112	ENSMUST00000 228921.1	Pck2	ENSMUSG0000040618	phosphoenolpyruvate carboxykinase 2 (mitochondrial) Source MGI Symbol Acc MGI 1860456
E11	SBM0716432	ENSMUST00000 115409.8	Pdk1	ENSMUSG0000024122	3-phosphoinositide dependent protein kinase 1 Source MGI Symbol Acc MGI 1338068
E12	SBM0745518	ENSMUST00000 156255.7	Pitp	ENSMUSG0000017754	phospholipid transfer protein Source MGI Symbol Acc MGI 103151
F01	SBM0952484	ENSMUST00000 138813.7	Ppara	ENSMUSG000002383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
F02	SBM0865243	ENSMUST00000 169040.2	Ppard	ENSMUSG0000002250	peroxisome proliferator activator receptor delta Source MGI Symbol Acc MGI 101884
F03	SBM1015614	ENSMUST00000 205213.2	Pparg	ENSMUSG0000000440	peroxisome proliferator activated receptor gamma Source MGI Symbol Acc MGI 97747
F04	SBM0984439	ENSMUST00000 132734.7	Ppargc1a	ENSMUSG0000029167	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha Source MGI Symbol Acc MGI 1342774
F05	SBM0842607	ENSMUST00000 075299.12	Ppargc1b	ENSMUSG000003871	peroxisome proliferative activated receptor, gamma, coactivator 1 beta Source MGI Symbol Acc MGI 2444934
F06	SBM0938326	ENSMUST00000 147640.1	Pprc1	ENSMUSG0000055491	peroxisome proliferative activated receptor, gamma, coactivator-related 1 Source MGI Symbol Acc MGI 2385096
F07	SBM1220566	ENSMUST00000 013807.7	Pten	ENSMUSG0000013663	phosphatase and tensin homolog Source MGI Symbol Acc MGI 109583
F08	SBM0865579	ENSMUST00000 166775.7	Rxra	ENSMUSG0000015846	retinoid X receptor alpha Source MGI Symbol Acc MGI 98214
F09	SBM1090496	ENSMUST00000 174130.1	Rxrb	ENSMUSG0000039656	retinoid X receptor beta Source MGI Symbol Acc MGI 98215
F10	SBM0740327	ENSMUST00000 015987.9	Rxrg	ENSMUSG0000015843	retinoid X receptor gamma Source MGI Symbol Acc MGI 98216

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
F11	SBM0890897	ENSMUST00000 236824.1	Scd1	ENSMUSG00 000037071	stearoyl-Coenzyme A desaturase 1 Source MGI Symbol Acc MGI 98239
F12	SBM1040786	ENSMUST00000 020257.12	Sirt1	ENSMUSG00 000020063	sirtuin 1 Source MGI Symbol Acc MGI 2135607
G01	SBM0772549	ENSMUST00000 152084.1	Slc22a5	ENSMUSG00 000018900	solute carrier family 22 (organic cation transporter), member 5 Source MGI Symbol Acc MGI 1329012
G02	SBM0883649	ENSMUST00000 034267.4	Slc27a1	ENSMUSG00 000031808	solute carrier family 27 (fatty acid transporter), member 1 Source MGI Symbol Acc MGI 1347098
G03	SBM0878546	ENSMUST00000 061491.13	Slc27a2	ENSMUSG00 000027359	solute carrier family 27 (fatty acid transporter), member 2 Source MGI Symbol Acc MGI 1347099
G04	SBM0823234	ENSMUST00000 136444.1	Slc27a4	ENSMUSG00 000059316	solute carrier family 27 (fatty acid transporter), member 4 Source MGI Symbol Acc MGI 1347347
G05	SBM1013002	ENSMUST00000 120903.7	Slc27a5	ENSMUSG00 000030382	solute carrier family 27 (fatty acid transporter), member 5 Source MGI Symbol Acc MGI 1347100
G06	SBM1017101	ENSMUST00000 025500.6	Slc27a6	ENSMUSG00 000024600	solute carrier family 27 (fatty acid transporter), member 6 Source MGI Symbol Acc MGI 3036230
G07	SBM0814047	ENSMUST00000 195943.1	Smarcd3	ENSMUSG00 000028949	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3 Source MGI Symbol Acc MGI 1914243
G08	SBM1083181	ENSMUST00000 224667.1	Sorbs1	ENSMUSG00 000025006	sorbin and SH3 domain containing 1 Source MGI Symbol Acc MGI 700014
G09	SBM1051097	ENSMUST00000 029175.13	Src	ENSMUSG00 000027646	Rous sarcoma oncogene Source MGI Symbol Acc MGI 98397
G10	SBM1073987	ENSMUST00000 132518.1	Tgs1	ENSMUSG00 000028233	trimethylguanosine synthase 1 Source MGI Symbol Acc MGI 2151797
G11	SBM1060480	ENSMUST00000 049093.7	Txnip	ENSMUSG00 000038393	thioredoxin interacting protein Source MGI Symbol Acc MGI 1889549
G12	SBM1037476	ENSMUST00000 034146.4	Ucp1	ENSMUSG00 000031710	uncoupling protein 1 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 98894
H01	SBM1220560	ENSMUST00000 100497.10	Actb	ENSMUSG00 000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000 102476.4	B2m	ENSMUSG00 000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000 117757.8	Gapdh	ENSMUSG00 000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000 026613.13	Gusb	ENSMUSG00 000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000 166469.7	Hsp90ab1	ENSMUSG00 000023944	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 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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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.

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