

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

## Mouse Adipogenesis

Cat. no. 249950 SBMM-049ZR

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	Acacb	Adig	Adipoq	Adrb2	Agt	Angpt2	Axin1	Bmp2	Bmp4	Bmp7	Ccnd1	Cdk4
B	Cdkn1a	Cdkn1b	Cebpa	Cebpb	Cebpd	Ctd	Creb1	Ddit3	Dio2	Dkk1	Dlk1	E2f1
C	Egr2	Fabp4	Fasn	Fgf1	Fgf10	Fgf2	Foxc2	Foxo1	Gata2	Gata3	Hes1	Insr
D	Irs1	Irs2	Jun	Klf15	Klf2	Klf3	Klf4	Lep	Lipe	Lmo	Lpl	Lrp5
E	Mapk14	Ncoa2	Ncor2	Nr0b2	Nr1h3	Nrf1	Ppara	Ppard	Pparg	Ppargc1a	Ppargc1b	Prdm16
F	Rb1	Retn	Rurx11	Rxra	Sfrp1	Sfrp5	Shh	Sirt1	Sirt2	Sirt3	Slc2a4	Src
G	Srebf1	Taz	Tcf712	Tsc22d3	Twist1	Ucp1	Vdr	Wnt1	Wnt10b	Wnt3a	Wnt5a	Wnt5b
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	SBM0840405	ENSMUST00000031583.14	Acacb	ENSMUSG0000042010	acetyl-Coenzyme A carboxylase beta Source MGI Symbol Acc MGI 2140940
A02	SBM1092876	ENSMUST00000059889.3	Adig	ENSMUSG0000044405	adipogenin Source MGI Symbol Acc MGI 2675492
A03	SBM0903115	ENSMUST00000023593.5	Adipoq	ENSMUSG0000022878	adiponectin, C1Q and collagen domain containing Source MGI Symbol Acc MGI 106675
A04	SBM1025763	ENSMUST00000053640.4	Adrb2	ENSMUSG0000045730	adrenergic receptor, beta 2 Source MGI Symbol Acc MGI 87938
A05	SBM0838798	ENSMUST00000063278.6	Agt	ENSMUSG0000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963
A06	SBM0989251	ENSMUST000000170200.1	Angpt2	ENSMUSG0000031465	angiopoietin 2 Source MGI Symbol Acc MGI 1202890
A07	SBM0716956	ENSMUST000000168282.2	Axin1	ENSMUSG0000024182	axin 1 Source MGI Symbol Acc MGI 1096327
A08	SBM0831820	ENSMUST00000028836.6	Bmp2	ENSMUSG0000027358	bone morphogenetic protein 2 Source MGI Symbol Acc MGI 88177
A09	SBM0845886	ENSMUST000000100676.2	Bmp4	ENSMUSG0000021835	bone morphogenetic protein 4 Source MGI Symbol Acc MGI 88180
A10	SBM1004016	ENSMUST000000137247.1	Bmp7	ENSMUSG0000008999	bone morphogenetic protein 7 Source MGI Symbol Acc MGI 103302
A11	SBM0706150	ENSMUST00000093962.4	Ccnd1	ENSMUSG0000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
A12	SBM0702559	ENSMUST000000120226.7	Cdk4	ENSMUSG0000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
B01	SBM1034022	ENSMUST00000023829.7	Cdkn1a	ENSMUSG0000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
B02	SBM1006924	ENSMUST00000067327.10	Cdkn1b	ENSMUSG0000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
B03	SBM0970317	ENSMUST000000205391.1	Cebpa	ENSMUSG0000034957	CCAAT/enhancer binding protein (C/EBP), alpha Source MGI Symbol Acc MGI 99480
B04	SBM0682459	ENSMUST00000070642.3	Cebpb	ENSMUSG0000056501	CCAAT/enhancer binding protein (C/EBP), beta Source MGI Symbol Acc MGI 88373
B05	SBM0962498	ENSMUST00000096232.5	Cebpd	ENSMUSG0000071637	CCAAT/enhancer binding protein (C/EBP), delta Source MGI Symbol Acc MGI 103573
B06	SBM0729233	ENSMUST00000061653.8	Cfd	ENSMUSG0000061780	complement factor D (adipsin) Source MGI Symbol Acc MGI 87931
B07	SBM0735214	ENSMUST000000188855.6	Creb1	ENSMUSG0000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
B08	SBM0724182	ENSMUST000000139091.1	Ddit3	ENSMUSG0000025408	DNA-damage inducible transcript 3 Source MGI Symbol Acc MGI 109247
B09	SBM0790003	ENSMUST000000082432.4	Dio2	ENSMUSG0000007682	deiodinase, iodothyronine, type II Source MGI Symbol Acc MGI 1338833
B10	SBM0673405	ENSMUST00000025803.8	Dkk1	ENSMUSG0000024868	dickkopf WNT signaling pathway inhibitor 1 Source MGI Symbol Acc MGI 1329040
B11	SBM0770323	ENSMUST000000109844.10	Dlk1	ENSMUSG0000040856	delta like non-canonical Notch ligand 1 Source MGI Symbol Acc MGI 94900
B12	SBM0678575	ENSMUST00000000894.5	E2f1	ENSMUSG0000027490	E2F transcription factor 1 Source MGI Symbol Acc MGI 101941
C01	SBM0767336	ENSMUST000000145936.1	Egr2	ENSMUSG0000037868	early growth response 2 Source MGI Symbol Acc MGI 95296
C02	SBM0719045	ENSMUST000000029041.5	Fabp4	ENSMUSG0000062515	fatty acid binding protein 4, adipocyte Source MGI Symbol Acc MGI 88038
C03	SBM1047932	ENSMUST000000206589.1	Fasn	ENSMUSG0000025153	fatty acid synthase Source MGI Symbol Acc MGI 95485
C04	SBM1074617	ENSMUST000000235922.1	Fgf1	ENSMUSG0000036585	fibroblast growth factor 1 Source MGI Symbol Acc MGI 95515
C05	SBM0904863	ENSMUST000000128103.8	Fgf10	ENSMUSG0000021732	fibroblast growth factor 10 Source MGI Symbol Acc MGI 1099809
C06	SBM0959713	ENSMUST000000138563.8	Fgf2	ENSMUSG0000037225	fibroblast growth factor 2 Source MGI Symbol Acc MGI 95516
C07	SBM0872986	ENSMUST00000054691.7	Foxc2	ENSMUSG0000046714	forkhead box C2 Source MGI Symbol Acc MGI 1347481
C08	SBM0795258	ENSMUST00000053764.6	Foxo1	ENSMUSG0000044167	forkhead box O1 Source MGI Symbol Acc MGI 1890077
C09	SBM0720280	ENSMUST000000015197.8	Gata2	ENSMUSG0000015053	GATA binding protein 2 Source MGI Symbol Acc MGI 95662
C10	SBM0782281	ENSMUST000000147533.1	Gata3	ENSMUSG0000015619	GATA binding protein 3 Source MGI Symbol Acc MGI 95663
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0965557	023171.7	Hes1	000022528	hes family bHLH transcription factor 1 Source MGI Symbol Acc MGI 104853
C12	SBM1013137	ENSMUST00000207100.1	Insr	ENSMUSG0000005534	insulin receptor Source MGI Symbol Acc MGI 96575
D01	SBM0923271	ENSMUST00000069799.2	Irs1	ENSMUSG00000055980	insulin receptor substrate 1 Source MGI Symbol Acc MGI 99454
D02	SBM0792647	ENSMUST00000040514.7	Irs2	ENSMUSG00000038894	insulin receptor substrate 2 Source MGI Symbol Acc MGI 109334
D03	SBM1045409	ENSMUST00000107094.1	Jun	ENSMUSG00000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
D04	SBM0784495	ENSMUST00000113530.3	Klf15	ENSMUSG00000030087	Kruppel-like factor 15 Source MGI Symbol Acc MGI 1929988
D05	SBM1068978	ENSMUST00000067912.7	Klf2	ENSMUSG00000055148	Kruppel-like factor 2 (lung) Source MGI Symbol Acc MGI 1342772
D06	SBM0980022	ENSMUST00000200587.4	Klf3	ENSMUSG00000029178	Kruppel-like factor 3 (basic) Source MGI Symbol Acc MGI 1342773
D07	SBM0801791	ENSMUST00000132746.1	Klf4	ENSMUSG00000030332	Kruppel-like factor 4 (gut) Source MGI Symbol Acc MGI 1342287
D08	SBM0718370	ENSMUST00000169505.1	Lep	ENSMUSG00000059201	leptin Source MGI Symbol Acc MGI 104663
D09	SBM1009382	ENSMUST00000003207.10	Lipe	ENSMUSG00000003123	lipase, hormone sensitive Source MGI Symbol Acc MGI 96790
D10	SBM0903585	ENSMUST00000120377.7	Lmna	ENSMUSG00000028063	lamin A Source MGI Symbol Acc MGI 96794
D11	SBM1060657	ENSMUST00000015712.14	Lpl	ENSMUSG00000015568	lipoprotein lipase Source MGI Symbol Acc MGI 96820
D12	SBM0676519	ENSMUST00000177294.1	Lrp5	ENSMUSG00000024913	low density lipoprotein receptor-related protein 5 Source MGI Symbol Acc MGI 1278315
E01	SBM0683456	ENSMUST00000114754.7	Mapk14	ENSMUSG00000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
E02	SBM0777875	ENSMUST00000145280.1	Ncoa2	ENSMUSG00000005886	nuclear receptor coactivator 2 Source MGI Symbol Acc MGI 1276533
E03	SBM0944158	ENSMUST00000111402.8	Ncor2	ENSMUSG00000029478	nuclear receptor co-repressor 2 Source MGI Symbol Acc MGI 1337080
E04	SBM1024270	ENSMUST00000042706.2	Nr0b2	ENSMUSG00000037583	nuclear receptor subfamily 0, group B, member 2 Source MGI Symbol Acc MGI 1346344
E05	SBM0913125	ENSMUST00000150654.7	Nr1h3	ENSMUSG00000002108	nuclear receptor subfamily 1, group H, member 3 Source MGI Symbol Acc MGI 1352462
E06	SBM1016123	ENSMUST00000115199.7	Nrf1	ENSMUSG00000058440	nuclear respiratory factor 1 Source MGI Symbol Acc MGI 1332235
E07	SBM0952484	ENSMUST00000138813.7	Ppara	ENSMUSG00000022383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
E08	SBM0865243	ENSMUST00000169040.2	Ppard	ENSMUSG00000002250	peroxisome proliferator activator receptor delta Source MGI Symbol Acc MGI 101884
E09	SBM1015614	ENSMUST00000205213.2	Pparg	ENSMUSG00000000440	peroxisome proliferator activated receptor gamma Source MGI Symbol Acc MGI 97747
E10	SBM0984439	ENSMUST00000132734.7	Ppargc1a	ENSMUSG00000029167	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha Source MGI Symbol Acc MGI 1342774
E11	SBM0842607	ENSMUST00000075299.12	Ppargc1b	ENSMUSG00000033871	peroxisome proliferative activated receptor, gamma, coactivator 1 beta Source MGI Symbol Acc MGI 2444934
E12	SBM0915213	ENSMUST00000141164.7	Prdm16	ENSMUSG00000039410	PR domain containing 16 Source MGI Symbol Acc MGI 1917923
F01	SBM0795530	ENSMUST00000168495.1	Rb1	ENSMUSG00000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
F02	SBM0984170	ENSMUST00000012849.14	Retn	ENSMUSG00000012705	resistin Source MGI Symbol Acc MGI 1888506
F03	SBM1067812	ENSMUST00000006761.9	Runx1l1	ENSMUSG00000006586	RUNX1 translocation partner 1 Source MGI Symbol Acc MGI 104793
F04	SBM0865579	ENSMUST00000166775.7	Rxra	ENSMUSG00000015846	retinoid X receptor alpha Source MGI Symbol Acc MGI 98214
F05	SBM0742478	ENSMUST00000033952.7	Sfrp1	ENSMUSG00000031548	secreted frizzled-related protein 1 Source MGI Symbol Acc MGI 892014
F06	SBM1218365	ENSMUST00000018966.7	Sfrp5	ENSMUSG00000018822	secreted frizzled-related sequence protein 5 Source MGI Symbol Acc MGI 1860298
F07	SBM0959314	ENSMUST00000002708.4	Shh	ENSMUSG00000002633	sonic hedgehog Source MGI Symbol Acc MGI 98297
F08	SBM1040786	ENSMUST00000020257.12	Sirt1	ENSMUSG00000020063	sirtuin 1 Source MGI Symbol Acc MGI 2135607
F09	SBM0809599	ENSMUST00000132789.7	Sirt2	ENSMUSG00000015149	sirtuin 2 Source MGI Symbol Acc MGI 1927664
F10	SBM0853446	ENSMUST00000211179.1	Sirt3	ENSMUSG00000025486	sirtuin 3 Source MGI Symbol Acc MGI 1927665

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0717464	ENSMUST00000178809.7	Slc2a4	ENSMUSG0000018566	solute carrier family 2 (facilitated glucose transporter), member 4 Source MGI Symbol Acc MGI 95758
F12	SBM1051097	ENSMUST00000029175.13	Src	ENSMUSG0000027646	Rous sarcoma oncogene Source MGI Symbol Acc MGI 98397
G01	SBM0984070	ENSMUST00000020846.7	Srebf1	ENSMUSG0000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
G02	SBM0907399	ENSMUST00000156212.7	Taz	ENSMUSG0000009995	tafazzin Source MGI Symbol Acc MGI 109626
G03	SBM0875642	ENSMUST00000111657.10	Tcf7l2	ENSMUSG0000024985	transcription factor 7 like 2, T cell specific, HMG box Source MGI Symbol Acc MGI 1202879
G04	SBM0967321	ENSMUST00000055738.11	Tsc22d3	ENSMUSG0000031431	TSC22 domain family, member 3 Source MGI Symbol Acc MGI 1196284
G05	SBM0689554	ENSMUST00000049089.6	Twist1	ENSMUSG0000035799	twist basic helix-loop-helix transcription factor 1 Source MGI Symbol Acc MGI 98872
G06	SBM1037476	ENSMUST00000034146.4	Ucp1	ENSMUSG0000031710	uncoupling protein 1 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 98894
G07	SBM0761592	ENSMUST00000139656.1	Vdr	ENSMUSG0000022479	vitamin D (1,25-dihydroxyvitamin D3) receptor Source MGI Symbol Acc MGI 103076
G08	SBM0828761	ENSMUST00000023734.7	Wnt1	ENSMUSG0000022997	wingless-type MMTV integration site family, member 1 Source MGI Symbol Acc MGI 98953
G09	SBM0964186	ENSMUST00000228546.1	Wnt10b	ENSMUSG0000022996	wingless-type MMTV integration site family, member 10B Source MGI Symbol Acc MGI 108061
G10	SBM0757599	ENSMUST00000010044.7	Wnt3a	ENSMUSG0000009900	wingless-type MMTV integration site family, member 3A Source MGI Symbol Acc MGI 98956
G11	SBM0893772	ENSMUST00000112272.1	Wnt5a	ENSMUSG0000021994	wingless-type MMTV integration site family, member 5A Source MGI Symbol Acc MGI 98958
G12	SBM0831789	ENSMUST00000118120.7	Wnt5b	ENSMUSG0000030170	wingless-type MMTV integration site family, member 5B Source MGI Symbol Acc MGI 98959
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.

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