

QuantiNova® LNA® PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

Mouse Circadian Rhythms

Cat. no. 249950 SBMM-153ZA

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 (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA PCR System Handbook at www.qiagen.com for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Aanat	Alas1	Arntl	Arntl2	Bhlhe40	Bhlhe41	Camk2a	Camk2b	Camk2d	Camk2g	Carptt	Noct
B	Chrb2	Clock	Creb1	Creb3	Crx	Cry1	Cry2	Csnk1a1	Csnk1d	Csnk1e	Csnk2a1	Csnk2a2
C	Dbp	Egr1	Egr3	Epo	Esrra	Fbxl21	Fbxl3	Hebp1	Hlf	Htr7	Irf1	Kcnma1
D	Mapk1	Mapk14	Mapk3	Mat2a	Mtnr1a	Mtnr1b	Myod1	Ncoa3	Nfil3	Nlx2-5	Nms	Npas2
E	Nr1d1	Nr1d2	Nr2f6	Opn3	Opn4	Pax4	Per1	Per2	Per3	Pou2f1	Ppara	Ppargc1a
F	Prf1	Prkaca	Prkacb	Prkar1a	Prkar1b	Prkar2a	Prkar2b	Prkca	Prkcb	Prkr2	Ptgs	Rora
G	Rorb	Rorc	Slc9a3	Smad4	Sp1	Sreb1	Stat5a	Tfap2a	Tef	Tgfb1	Timeless	Wee1
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	SBM0826691	ENSMUST00000021160.9	Aanat	ENSMUSG0000020804	arylalkylamine N-acetyltransferase Source MGI Symbol Acc MGI 1328365
A02	SBM0877059	ENSMUST00000141118.8	Alas1	ENSMUSG00000032786	aminolevulinic acid synthase 1 Source MGI Symbol Acc MGI 87989
A03	SBM1062547	ENSMUST00000047321.8	Arntl	ENSMUSG00000055116	aryl hydrocarbon receptor nuclear translocator-like Source MGI Symbol Acc MGI 1096381
A04	SBM0943327	ENSMUST00000111638.7	Arntl2	ENSMUSG00000040187	aryl hydrocarbon receptor nuclear translocator-like 2 Source MGI Symbol Acc MGI 2684845
A05	SBM1059378	ENSMUST00000163617.1	Bhlhe40	ENSMUSG00000030103	basic helix-loop-helix family, member e40 Source MGI Symbol Acc MGI 1097714
A06	SBM1046908	ENSMUST00000111703.1	Bhlhe41	ENSMUSG00000030256	basic helix-loop-helix family, member e41 Source MGI Symbol Acc MGI 1930704
A07	SBM0784888	ENSMUST00000025519.10	Camk2a	ENSMUSG00000024617	calcium/calmodulin-dependent protein kinase II alpha Source MGI Symbol Acc MGI 88256
A08	SBM0677504	ENSMUST00000129098.1	Camk2b	ENSMUSG00000057897	calcium/calmodulin-dependent protein kinase II, beta Source MGI Symbol Acc MGI 88257
A09	SBM1060282	ENSMUST00000145454.7	Camk2d	ENSMUSG00000053819	calcium/calmodulin-dependent protein kinase II, delta Source MGI Symbol Acc MGI 1341265
A10	SBM0845808	ENSMUST00000080440.13	Camk2g	ENSMUSG00000021820	calcium/calmodulin-dependent protein kinase II gamma Source MGI Symbol Acc MGI 88259
A11	SBM0781756	ENSMUST00000022150.7	Cartpt	ENSMUSG00000021647	CART prepropeptide Source MGI Symbol Acc MGI 1351330
A12	SBM0805754	ENSMUST00000193018.1	Noct	ENSMUSG00000023087	nocturnin Source MGI Symbol Acc MGI 109382
B01	SBM0948621	ENSMUST00000029562.4	Chrn2	ENSMUSG00000027950	cholinergic receptor, nicotinic, beta polypeptide 2 (neuronal) Source MGI Symbol Acc MGI 87891
B02	SBM0751966	ENSMUST00000202857.3	Clock	ENSMUSG00000029238	circadian locomotor output cycles kaput Source MGI Symbol Acc MGI 99698
B03	SBM0735214	ENSMUST00000188855.6	Creb1	ENSMUSG00000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
B04	SBM0997266	ENSMUST00000167751.1	Creb3	ENSMUSG00000028466	cAMP responsive element binding protein 3 Source MGI Symbol Acc MGI 99946
B05	SBM0675446	ENSMUST00000172758.2	Crx	ENSMUSG00000041578	cone-rod homeobox Source MGI Symbol Acc MGI 1194883
B06	SBM0925528	ENSMUST00000214675.1	Cry1	ENSMUSG00000020038	cryptochrome 1 (photolyase-like) Source MGI Symbol Acc MGI 1270841
B07	SBM1075898	ENSMUST00000111278.1	Cry2	ENSMUSG00000068742	cryptochrome 2 (photolyase-like) Source MGI Symbol Acc MGI 1270859
B08	SBM1007934	ENSMUST00000165123.7	Csnk1a1	ENSMUSG00000024576	casein kinase 1, alpha 1 Source MGI Symbol Acc MGI 1934950
B09	SBM0716694	ENSMUST00000155070.1	Csnk1d	ENSMUSG00000025162	casein kinase 1, delta Source MGI Symbol Acc MGI 1355272
B10	SBM0886870	ENSMUST00000136003.1	Csnk1e	ENSMUSG00000022433	casein kinase 1, epsilon Source MGI Symbol Acc MGI 1351660
B11	SBM0956396	ENSMUST00000124791.7	Csnk2a1	ENSMUSG00000074698	casein kinase 2, alpha 1 polypeptide Source MGI Symbol Acc MGI 88543
B12	SBM1019820	ENSMUST00000212441.1	Csnk2a2	ENSMUSG00000046707	casein kinase 2, alpha prime polypeptide Source MGI Symbol Acc MGI 88547
C01	SBM1011802	ENSMUST00000080885.11	Dbp	ENSMUSG00000059824	D site albumin promoter binding protein Source MGI Symbol Acc MGI 94866
C02	SBM0782056	ENSMUST00000064795.5	Egr1	ENSMUSG00000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
C03	SBM0735904	ENSMUST00000035908.2	Egr3	ENSMUSG00000033730	early growth response 3 Source MGI Symbol Acc MGI 1306780
C04	SBM0965635	ENSMUST00000111038.7	Epo	ENSMUSG00000029711	erythropoietin Source MGI Symbol Acc MGI 95407
C05	SBM0823278	ENSMUST00000173308.1	Esrra	ENSMUSG00000024955	estrogen related receptor, alpha Source MGI Symbol Acc MGI 1346831
C06	SBM1091306	ENSMUST00000121095.7	Fbxl21	ENSMUSG00000035509	F-box and leucine-rich repeat protein 21 Source MGI Symbol Acc MGI 2442921
C07	SBM1089829	ENSMUST00000123043.1	Fbxl3	ENSMUSG00000022124	F-box and leucine-rich repeat protein 3 Source MGI Symbol Acc MGI 1354702
C08	SBM0790163	ENSMUST00000045855.8	Hebp1	ENSMUSG00000042770	heme binding protein 1 Source MGI Symbol Acc MGI 1333880
C09	SBM0963604	ENSMUST00000137957.1	Hlf	ENSMUSG0000003949	hepatic leukemia factor Source MGI Symbol Acc MGI 96108
C10	SBM1063519	ENSMUST00000165215.7	Htr7	ENSMUSG00000024798	5-hydroxytryptamine (serotonin) receptor 7 Source MGI Symbol Acc MGI 99841
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM1091850	138913.7	Irf1	000018899	interferon regulatory factor 1 Source MGI Symbol Acc MGI 96590
C12	SBM0828328	ENSMUST00000 065788.14	Kcnma1	ENSMUSG00 000063142	potassium large conductance calcium-activated channel, subfamily M, alpha member 1 Source MGI Symbol Acc MGI 99923
D01	SBM0800614	ENSMUST00000 231821.1	Mapk1	ENSMUSG00 000063358	mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858
D02	SBM0683456	ENSMUST00000 114754.7	Mapk14	ENSMUSG00 000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
D03	SBM0856900	ENSMUST00000 206272.1	Mapk3	ENSMUSG00 000063065	mitogen-activated protein kinase 3 Source MGI Symbol Acc MGI 1346859
D04	SBM0721960	ENSMUST00000 206692.1	Mat2a	ENSMUSG00 000053907	methionine adenosyltransferase II, alpha Source MGI Symbol Acc MGI 2443731
D05	SBM0776087	ENSMUST00000 130141.1	Mtnr1a	ENSMUSG00 000054764	melatonin receptor 1A Source MGI Symbol Acc MGI 102967
D06	SBM0760274	ENSMUST00000 057920.6	Mtnr1b	ENSMUSG00 000050901	melatonin receptor 1B Source MGI Symbol Acc MGI 2181726
D07	SBM0847322	ENSMUST00000 072514.2	Myod1	ENSMUSG00 000009471	myogenic differentiation 1 Source MGI Symbol Acc MGI 97275
D08	SBM0723993	ENSMUST00000 153507.1	Ncoa3	ENSMUSG00 000027678	nuclear receptor coactivator 3 Source MGI Symbol Acc MGI 1276535
D09	SBM0772578	ENSMUST00000 071065.7	Nfil3	ENSMUSG00 000056749	nuclear factor, interleukin 3, regulated Source MGI Symbol Acc MGI 109495
D10	SBM0885289	ENSMUST00000 015723.4	Nkx2-5	ENSMUSG00 000015579	NK2 homeobox 5 Source MGI Symbol Acc MGI 97350
D11	SBM0770971	ENSMUST00000 160214.1	Nms	ENSMUSG00 000067604	neuromedin S Source MGI Symbol Acc MGI 3583618
D12	SBM0820205	ENSMUST00000 173050.7	Npas2	ENSMUSG00 000026077	neuronal PAS domain protein 2 Source MGI Symbol Acc MGI 109232
E01	SBM1089774	ENSMUST00000 139220.1	Nr1d1	ENSMUSG00 000020889	nuclear receptor subfamily 1, group D, member 1 Source MGI Symbol Acc MGI 2444210
E02	SBM0917488	ENSMUST00000 143308.1	Nr1d2	ENSMUSG00 000021775	nuclear receptor subfamily 1, group D, member 2 Source MGI Symbol Acc MGI 2449205
E03	SBM0739172	ENSMUST00000 002466.8	Nr2f6	ENSMUSG00 000002393	nuclear receptor subfamily 2, group F, member 6 Source MGI Symbol Acc MGI 1352453
E04	SBM0832333	ENSMUST00000 027809.7	Opn3	ENSMUSG00 000026525	opsin 3 Source MGI Symbol Acc MGI 1338022
E05	SBM0674987	ENSMUST00000 168444.8	Opn4	ENSMUSG00 000021799	opsin 4 (melanopsin) Source MGI Symbol Acc MGI 1353425
E06	SBM0871953	ENSMUST00000 174194.1	Pax4	ENSMUSG00 000029706	paired box 4 Source MGI Symbol Acc MGI 97488
E07	SBM0874801	ENSMUST00000 142392.7	Per1	ENSMUSG00 000020893	period circadian clock 1 Source MGI Symbol Acc MGI 1098283
E08	SBM0927377	ENSMUST00000 185298.1	Per2	ENSMUSG00 000055866	period circadian clock 2 Source MGI Symbol Acc MGI 1195265
E09	SBM0835125	ENSMUST00000 128283.1	Per3	ENSMUSG00 000028957	period circadian clock 3 Source MGI Symbol Acc MGI 1277134
E10	SBM0831533	ENSMUST00000 111427.8	Pou2f1	ENSMUSG00 000026565	POU domain, class 2, transcription factor 1 Source MGI Symbol Acc MGI 101898
E11	SBM0952484	ENSMUST00000 138813.7	Ppara	ENSMUSG00 000022383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
E12	SBM0984439	ENSMUST00000 132734.7	Ppargc1a	ENSMUSG00 000029167	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha Source MGI Symbol Acc MGI 1342774
F01	SBM1040821	ENSMUST00000 219375.1	Prf1	ENSMUSG00 000037202	perforin 1 (pore forming protein) Source MGI Symbol Acc MGI 97551
F02	SBM0941812	ENSMUST00000 211558.1	Prkaca	ENSMUSG00 000005469	protein kinase, cAMP dependent, catalytic, alpha Source MGI Symbol Acc MGI 97592
F03	SBM0782290	ENSMUST00000 102515.9	Prkacb	ENSMUSG00 000005034	protein kinase, cAMP dependent, catalytic, beta Source MGI Symbol Acc MGI 97594
F04	SBM0795279	ENSMUST00000 049527.6	Prkar1a	ENSMUSG00 000020612	protein kinase, cAMP dependent regulatory, type I, alpha Source MGI Symbol Acc MGI 104878
F05	SBM0722503	ENSMUST00000 026973.13	Prkar1b	ENSMUSG00 000025855	protein kinase, cAMP dependent regulatory, type I beta Source MGI Symbol Acc MGI 97759
F06	SBM1031979	ENSMUST00000 192068.1	Prkar2a	ENSMUSG00 000032601	protein kinase, cAMP dependent regulatory, type II alpha Source MGI Symbol Acc MGI 108025
F07	SBM0767821	ENSMUST00000 146865.1	Prkar2b	ENSMUSG00 000002997	protein kinase, cAMP dependent regulatory, type II beta Source MGI Symbol Acc MGI 97760
F08	SBM0890328	ENSMUST00000 100302.3	Prkca	ENSMUSG00 000050965	protein kinase C, alpha Source MGI Symbol Acc MGI 97595
F09	SBM0696479	ENSMUST00000 064921.4	Prkcb	ENSMUSG00 000052889	protein kinase C, beta Source MGI Symbol Acc MGI 97596
F10	SBM0934034	ENSMUST00000 145995.1	Prokr2	ENSMUSG00 000050558	prokineticin receptor 2 Source MGI Symbol Acc MGI 2181363

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0681048	ENSMUST00000114251.7	Ptgds	ENSMUSG0000015090	prostaglandin D2 synthase (brain) Source MGI Symbol Acc MGI 99261
F12	SBM0775611	ENSMUST00000034766.13	Rora	ENSMUSG0000032238	RAR-related orphan receptor alpha Source MGI Symbol Acc MGI 104661
G01	SBM0844721	ENSMUST00000147907.1	Rorb	ENSMUSG0000036192	RAR-related orphan receptor beta Source MGI Symbol Acc MGI 1343464
G02	SBM0832210	ENSMUST00000197040.4	Rorc	ENSMUSG0000028150	RAR-related orphan receptor gamma Source MGI Symbol Acc MGI 104856
G03	SBM1038383	ENSMUST00000225423.1	Slc9a3	ENSMUSG0000036123	solute carrier family 9 (sodium/hydrogen exchanger), member 3 Source MGI Symbol Acc MGI 105064
G04	SBM1071100	ENSMUST00000114939.1	Smad4	ENSMUSG0000024515	SMAD family member 4 Source MGI Symbol Acc MGI 894293
G05	SBM0682351	ENSMUST00000169619.1	Sp1	ENSMUSG0000001280	trans-acting transcription factor 1 Source MGI Symbol Acc MGI 98372
G06	SBM0984070	ENSMUST00000020846.7	Srebf1	ENSMUSG0000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
G07	SBM0789938	ENSMUST00000138083.7	Stat5a	ENSMUSG0000004043	signal transducer and activator of transcription 5A Source MGI Symbol Acc MGI 103036
G08	SBM0747386	ENSMUST00000021787.6	Tfap2a	ENSMUSG0000021359	transcription factor AP-2, alpha Source MGI Symbol Acc MGI 104671
G09	SBM0961413	ENSMUST00000168632.1	Tef	ENSMUSG0000022389	thyrotroph embryonic factor Source MGI Symbol Acc MGI 98663
G10	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G11	SBM0879505	ENSMUST00000105245.2	Timeless	ENSMUSG0000039994	timeless circadian clock 1 Source MGI Symbol Acc MGI 1321393
G12	SBM0782254	ENSMUST00000033326.9	Wee1	ENSMUSG0000031016	WEE 1 homolog 1 (S. pombe) Source MGI Symbol Acc MGI 103075
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 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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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