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

Mouse AMPK Signaling

Cat. no. 249950 SBMM-175ZR

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acaca	Acacb	Adipor1	Adipor2	Adra1a	Adra1b	Adra1d	Adra2a	Adra2b	Adra2c	Ak1	Ak2
B	Ak3	Akt1	Akt2	Akt3	Atg13	Cab39	Camkk1	Camkk2	Chrna1	Chrnb1	Cpt1a	Cpt1b
C	Cpt1c	Cpt2	Crtc2	Cry1	Eef2k	Eif4ebp1	Elavl1	Fasn	Foxo3	Gpam	Gpat2	Gys1
D	Gys2	Hmgcr	Hnf4a	Insr	Lepr	Lipe	Mlycd	Mtor	Pdpk1	Pfkfb1	Pfkfb2	Pfkfb3
E	Pfkfb4	Pnpla2	Ppargc1a	Ppargc1b	Ppp2ca	Ppp2cb	Ppp2r1a	Ppp2r1b	Ppp2r2b	Ptpa	Prkaa1	Prkaa2
F	Prkab1	Prkab2	Prkaca	Prkacb	Prkag1	Prkag2	Prkag3	Prkar1a	Prkar1b	Prkar2a	Prkar2b	Rb1cc1
G	Rps6kb1	Rps6kb2	Rptor	Slc2a4	Srebf1	Stk11	Strada	Stradb	Trp53	Tsc1	Tsc2	Ulk1
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	SBM0933576	ENSMUST00000133811.2	Acaca	ENSMUSG00000020532	acetyl-Coenzyme A carboxylase alpha Source MGI Symbol Acc MGI 108451
A02	SBM0840405	ENSMUST00000031583.14	Acacb	ENSMUSG00000042010	acetyl-Coenzyme A carboxylase beta Source MGI Symbol Acc MGI 2140940
A03	SBM1015976	ENSMUST00000112237.1	Adipor1	ENSMUSG00000026457	adiponectin receptor 1 Source MGI Symbol Acc MGI 1919924
A04	SBM0848941	ENSMUST00000187699.6	Adipor2	ENSMUSG00000030168	adiponectin receptor 2 Source MGI Symbol Acc MGI 93830
A05	SBM0789211	ENSMUST00000160647.1	Adra1a	ENSMUSG00000045875	adrenergic receptor, alpha 1a Source MGI Symbol Acc MGI 104773
A06	SBM0693993	ENSMUST00000124306.1	Adra1b	ENSMUSG00000050541	adrenergic receptor, alpha 1b Source MGI Symbol Acc MGI 104774
A07	SBM0697937	ENSMUST00000103184.3	Adra1d	ENSMUSG00000027335	adrenergic receptor, alpha 1d Source MGI Symbol Acc MGI 106673
A08	SBM0927196	ENSMUST00000036700.6	Adra2a	ENSMUSG00000033717	adrenergic receptor, alpha 2a Source MGI Symbol Acc MGI 87934
A09	SBM0748692	ENSMUST00000104934.1	Adra2b	ENSMUSG00000058620	adrenergic receptor, alpha 2b Source MGI Symbol Acc MGI 87935
A10	SBM0936130	ENSMUST00000049545.6	Adra2c	ENSMUSG00000045318	adrenergic receptor, alpha 2c Source MGI Symbol Acc MGI 87936
A11	SBM1027219	ENSMUST00000113278.8	Ak1	ENSMUSG00000026817	adenylate kinase 1 Source MGI Symbol Acc MGI 87977
A12	SBM0764557	ENSMUST00000152762.1	Ak2	ENSMUSG00000028792	adenylate kinase 2 Source MGI Symbol Acc MGI 87978
B01	SBM0789048	ENSMUST00000025696.4	Ak3	ENSMUSG00000024782	adenylate kinase 3 Source MGI Symbol Acc MGI 1860835
B02	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG00000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
B03	SBM0882867	ENSMUST00000051356.11	Akt2	ENSMUSG00000004056	thymoma viral proto-oncogene 2 Source MGI Symbol Acc MGI 104874
B04	SBM0683049	ENSMUST00000019843.14	Akt3	ENSMUSG00000019699	thymoma viral proto-oncogene 3 Source MGI Symbol Acc MGI 1345147
B05	SBM0689374	ENSMUST00000028678.8	Atg13	ENSMUSG00000027244	autophagy related 13 Source MGI Symbol Acc MGI 1196429
B06	SBM0874517	ENSMUST00000097666.3	Cab39	ENSMUSG00000036707	calcium binding protein 39 Source MGI Symbol Acc MGI 107438
B07	SBM1057268	ENSMUST00000145834.1	Camkk1	ENSMUSG00000020785	calcium/calmodulin-dependent protein kinase kinase 1, alpha Source MGI Symbol Acc MGI 1891766
B08	SBM0874105	ENSMUST00000196742.1	Camkk2	ENSMUSG00000029471	calcium/calmodulin-dependent protein kinase kinase 2, beta Source MGI Symbol Acc MGI 2444812
B09	SBM1032711	ENSMUST00000028515.3	Chrna1	ENSMUSG00000027107	cholinergic receptor, nicotinic, alpha polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87885
B10	SBM0717043	ENSMUST00000045971.8	Chrnb1	ENSMUSG00000041189	cholinergic receptor, nicotinic, beta polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87890
B11	SBM1029896	ENSMUST00000238027.1	Cpt1a	ENSMUSG00000024900	carnitine palmitoyltransferase 1a, liver Source MGI Symbol Acc MGI 1098296
B12	SBM0949787	ENSMUST00000109313.8	Cpt1b	ENSMUSG00000078937	carnitine palmitoyltransferase 1b, muscle Source MGI Symbol Acc MGI 1098297
C01	SBM0735655	ENSMUST00000212836.1	Cpt1c	ENSMUSG00000007783	carnitine palmitoyltransferase 1c Source MGI Symbol Acc MGI 2446526
C02	SBM0911444	ENSMUST00000030345.14	Cpt2	ENSMUSG00000028607	carnitine palmitoyltransferase 2 Source MGI Symbol Acc MGI 109176
C03	SBM0725701	ENSMUST00000149897.1	Crtc2	ENSMUSG00000027936	CREB regulated transcription coactivator 2 Source MGI Symbol Acc MGI 1921593
C04	SBM0925528	ENSMUST00000214675.1	Cry1	ENSMUSG00000020038	cryptochrome 1 (photolyase-like) Source MGI Symbol Acc MGI 1270841
C05	SBM0840045	ENSMUST00000106487.8	Eef2k	ENSMUSG00000035064	eukaryotic elongation factor-2 kinase Source MGI Symbol Acc MGI 1195261
C06	SBM1066112	ENSMUST00000033880.6	Eif4ebp1	ENSMUSG00000031490	eukaryotic translation initiation factor 4E binding protein 1 Source MGI Symbol Acc MGI 103267
C07	SBM0708737	ENSMUST00000098950.5	Elavl1	ENSMUSG00000040028	ELAV (embryonic lethal, abnormal vision)-like 1 (Hu antigen R) Source MGI Symbol Acc MGI 1100851
C08	SBM1047932	ENSMUST00000206589.1	Fasn	ENSMUSG00000025153	fatty acid synthase Source MGI Symbol Acc MGI 95485
C09	SBM1067125	ENSMUST00000105502.7	Foxo3	ENSMUSG00000048756	forkhead box O3 Source MGI Symbol Acc MGI 1890081
C10	SBM0810017	ENSMUST00000235957.1	Gpam	ENSMUSG00000024978	glycerol-3-phosphate acyltransferase, mitochondrial Source MGI Symbol Acc MGI 109162
		ENSMUST00000		ENSMUSG00	glycerol-3-phosphate acyltransferase 2, mitochondrial Source MGI Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM1055473	062211.3	Gpat2	000046338	MGI 2684962
C12	SBM0942563	ENSMUST00000003964.16	Gys1	ENSMUSG00000003865	glycogen synthase 1, muscle Source MGI Symbol Acc MGI 101805
D01	SBM0675330	ENSMUST00000032371.7	Gys2	ENSMUSG00000030244	glycogen synthase 2 Source MGI Symbol Acc MGI 2385254
D02	SBM0852758	ENSMUST00000169196.7	Hmgcr	ENSMUSG00000021670	3-hydroxy-3-methylglutaryl-Coenzyme A reductase Source MGI Symbol Acc MGI 96159
D03	SBM0836445	ENSMUST00000109411.7	Hnf4a	ENSMUSG00000017950	hepatic nuclear factor 4, alpha Source MGI Symbol Acc MGI 109128
D04	SBM1013137	ENSMUST00000207100.1	Insr	ENSMUSG00000005534	insulin receptor Source MGI Symbol Acc MGI 96575
D05	SBM1058375	ENSMUST00000128948.7	Lepr	ENSMUSG00000057722	leptin receptor Source MGI Symbol Acc MGI 104993
D06	SBM1009382	ENSMUST00000003207.10	Lipe	ENSMUSG00000003123	lipase, hormone sensitive Source MGI Symbol Acc MGI 96790
D07	SBM1063186	ENSMUST00000145121.1	Mlycd	ENSMUSG00000074064	malonyl-CoA decarboxylase Source MGI Symbol Acc MGI 1928485
D08	SBM1220565	ENSMUST00000103221.9	Mtor	ENSMUSG00000028991	mechanistic target of rapamycin kinase Source MGI Symbol Acc MGI 1928394
D09	SBM0716432	ENSMUST00000115409.8	Pdpk1	ENSMUSG00000024122	3-phosphoinositide dependent protein kinase 1 Source MGI Symbol Acc MGI 1338068
D10	SBM0802548	ENSMUST00000153221.7	Pfkfb1	ENSMUSG00000025271	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1 Source MGI Symbol Acc MGI 107816
D11	SBM0808595	ENSMUST00000191301.1	Pfkfb2	ENSMUSG00000026409	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2 Source MGI Symbol Acc MGI 107815
D12	SBM1083681	ENSMUST00000114844.7	Pfkfb3	ENSMUSG00000026773	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 Source MGI Symbol Acc MGI 2181202
E01	SBM0678504	ENSMUST00000200229.1	Pfkfb4	ENSMUSG00000025648	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4 Source MGI Symbol Acc MGI 2687284
E02	SBM0770045	ENSMUST00000169665.7	Pnpla2	ENSMUSG00000025509	patatin-like phospholipase domain containing 2 Source MGI Symbol Acc MGI 1914103
E03	SBM0984439	ENSMUST00000132734.7	Ppargc1a	ENSMUSG00000029167	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha Source MGI Symbol Acc MGI 1342774
E04	SBM0842607	ENSMUST00000075299.12	Ppargc1b	ENSMUSG00000033871	peroxisome proliferative activated receptor, gamma, coactivator 1 beta Source MGI Symbol Acc MGI 2444934
E05	SBM0974754	ENSMUST00000020608.2	Ppp2ca	ENSMUSG00000020349	protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform Source MGI Symbol Acc MGI 1321159
E06	SBM0862901	ENSMUST00000009774.10	Ppp2cb	ENSMUSG00000009630	protein phosphatase 2 (formerly 2A), catalytic subunit, beta isoform Source MGI Symbol Acc MGI 1321161
E07	SBM0760793	ENSMUST00000007708.13	Ppp2r1a	ENSMUSG00000007564	protein phosphatase 2, regulatory subunit A, alpha Source MGI Symbol Acc MGI 1926334
E08	SBM0723007	ENSMUST00000034560.13	Ppp2r1b	ENSMUSG00000032058	protein phosphatase 2, regulatory subunit A, beta Source MGI Symbol Acc MGI 1920949
E09	SBM1064475	ENSMUST00000153737.1	Ppp2r2b	ENSMUSG00000024500	protein phosphatase 2, regulatory subunit B, beta Source MGI Symbol Acc MGI 1920180
E10	SBM0993253	ENSMUST00000137741.1	Ptpa	ENSMUSG00000039515	protein phosphatase 2 protein activator Source MGI Symbol Acc MGI 1346006
E11	SBM0905959	ENSMUST00000228218.1	Prkaa1	ENSMUSG00000050697	protein kinase, AMP-activated, alpha 1 catalytic subunit Source MGI Symbol Acc MGI 2145955
E12	SBM0859779	ENSMUST00000030243.7	Prkaa2	ENSMUSG00000028518	protein kinase, AMP-activated, alpha 2 catalytic subunit Source MGI Symbol Acc MGI 1336173
F01	SBM0933984	ENSMUST00000141018.1	Prkab1	ENSMUSG00000029513	protein kinase, AMP-activated, beta 1 non-catalytic subunit Source MGI Symbol Acc MGI 1336167
F02	SBM0898406	ENSMUST00000132719.1	Prkab2	ENSMUSG00000038205	protein kinase, AMP-activated, beta 2 non-catalytic subunit Source MGI Symbol Acc MGI 1336185
F03	SBM0941812	ENSMUST00000211558.1	Prkaca	ENSMUSG00000005469	protein kinase, cAMP dependent, catalytic, alpha Source MGI Symbol Acc MGI 97592
F04	SBM0782290	ENSMUST00000102515.9	Prkacb	ENSMUSG00000005034	protein kinase, cAMP dependent, catalytic, beta Source MGI Symbol Acc MGI 97594
F05	SBM0922630	ENSMUST00000229346.1	Prkag1	ENSMUSG00000067713	protein kinase, AMP-activated, gamma 1 non-catalytic subunit Source MGI Symbol Acc MGI 108411
F06	SBM0764294	ENSMUST00000150135.7	Prkag2	ENSMUSG00000028944	protein kinase, AMP-activated, gamma 2 non-catalytic subunit Source MGI Symbol Acc MGI 1336153
F07	SBM1026091	ENSMUST00000160732.7	Prkag3	ENSMUSG00000006542	protein kinase, AMP-activated, gamma 3 non-catalytic subunit Source MGI Symbol Acc MGI 1891343
F08	SBM0795279	ENSMUST00000049527.6	Prkar1a	ENSMUSG00000020612	protein kinase, cAMP dependent regulatory, type I, alpha Source MGI Symbol Acc MGI 104878
F09	SBM0722503	ENSMUST00000026973.13	Prkar1b	ENSMUSG00000025855	protein kinase, cAMP dependent regulatory, type I beta Source MGI Symbol Acc MGI 97759
F10	SBM1031979	ENSMUST00000192068.1	Prkar2a	ENSMUSG00000032601	protein kinase, cAMP dependent regulatory, type II alpha Source MGI Symbol Acc MGI 108025

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0767821	ENSMUST00000146865.1	Prkar2b	ENSMUSG00000002997	protein kinase, cAMP dependent regulatory, type II beta Source MGI Symbol Acc MGI 97760
F12	SBM1218724	ENSMUST00000160871.7	Rb1cc1	ENSMUSG00000025907	RB1-inducible coiled-coil 1 Source MGI Symbol Acc MGI 1341850
G01	SBM0853475	ENSMUST00000058286.8	Rps6kb1	ENSMUSG00000020516	ribosomal protein S6 kinase, polypeptide 1 Source MGI Symbol Acc MGI 1270849
G02	SBM0762977	ENSMUST00000127605.7	Rps6kb2	ENSMUSG00000024830	ribosomal protein S6 kinase, polypeptide 2 Source MGI Symbol Acc MGI 1927343
G03	SBM0780248	ENSMUST00000139728.7	Rptor	ENSMUSG00000025583	regulatory associated protein of MTOR, complex 1 Source MGI Symbol Acc MGI 1921620
G04	SBM0717464	ENSMUST00000178809.7	Slc2a4	ENSMUSG00000018566	solute carrier family 2 (facilitated glucose transporter), member 4 Source MGI Symbol Acc MGI 95758
G05	SBM0984070	ENSMUST00000020846.7	Srebf1	ENSMUSG00000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
G06	SBM0873081	ENSMUST00000213772.1	Stk11	ENSMUSG00000003068	serine/threonine kinase 11 Source MGI Symbol Acc MGI 1341870
G07	SBM0772188	ENSMUST00000103072.9	Strada	ENSMUSG00000069631	STE20-related kinase adaptor alpha Source MGI Symbol Acc MGI 1919399
G08	SBM1040912	ENSMUST00000147637.7	Stradb	ENSMUSG00000026027	STE20-related kinase adaptor beta Source MGI Symbol Acc MGI 2144047
G09	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG00000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G10	SBM1061191	ENSMUST00000124507.1	Tsc1	ENSMUSG00000026812	tuberous sclerosis 1 Source MGI Symbol Acc MGI 1929183
G11	SBM0757000	ENSMUST00000228412.1	Tsc2	ENSMUSG00000002496	tuberous sclerosis 2 Source MGI Symbol Acc MGI 102548
G12	SBM0718433	ENSMUST00000198470.1	Ulk1	ENSMUSG00000029512	unc-51 like kinase 1 Source MGI Symbol Acc MGI 1270126
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG00000023944	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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