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

Human AMPK Signaling

Cat. no. 249950 SBHS-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	TP53	TSC1	TSC2	ULK1
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0228804	ENST00000617649.4	ACACA	ENSG00000278540	acetyl-CoA carboxylase alpha Source HGNC Symbol Acc HGNC 84
A02	SBH0400080	ENST00000538526.5	ACACB	ENSG00000076555	acetyl-CoA carboxylase beta Source HGNC Symbol Acc HGNC 85
A03	SBH0648796	ENST00000340990.10	ADIPOR1	ENSG00000159346	adiponectin receptor 1 Source HGNC Symbol Acc HGNC 24040
A04	SBH0568791	ENST00000543456.1	ADIPOR2	ENSG00000006831	adiponectin receptor 2 Source HGNC Symbol Acc HGNC 24041
A05	SBH0604482	ENST00000380573.3	ADRA1A	ENSG00000120907	adrenoceptor alpha 1A Source HGNC Symbol Acc HGNC 277
A06	SBH0418597	ENST00000306675.5	ADRA1B	ENSG00000170214	adrenoceptor alpha 1B Source HGNC Symbol Acc HGNC 278
A07	SBH0314853	ENST00000379453.5	ADRA1D	ENSG00000171873	adrenoceptor alpha 1D Source HGNC Symbol Acc HGNC 280
A08	SBH0531587	ENST00000280155.3	ADRA2A	ENSG00000150594	adrenoceptor alpha 2A Source HGNC Symbol Acc HGNC 281
A09	SBH0266728	ENST00000620793.2	ADRA2B	ENSG00000274286	adrenoceptor alpha 2B Source HGNC Symbol Acc HGNC 282
A10	SBH0262584	ENST00000330055.6	ADRA2C	ENSG00000184160	adrenoceptor alpha 2C Source HGNC Symbol Acc HGNC 283
A11	SBH0654781	ENST00000373156.5	AK1	ENSG00000106992	adenylate kinase 1 Source HGNC Symbol Acc HGNC 361
A12	SBH0223340	ENST00000466029.1	AK2	ENSG00000004455	adenylate kinase 2 Source HGNC Symbol Acc HGNC 362
B01	SBH0403403	ENST00000359883.6	AK3	ENSG00000147853	adenylate kinase 3 Source HGNC Symbol Acc HGNC 17376
B02	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
B03	SBH0364428	ENST00000492463.6	AKT2	ENSG00000105221	AKT serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 392
B04	SBH0031667	ENST00000463991.5	AKT3	ENSG00000117020	AKT serine/threonine kinase 3 Source HGNC Symbol Acc HGNC 393
B05	SBH0185423	ENST00000530500.5	ATG13	ENSG00000175224	autophagy related 13 Source HGNC Symbol Acc HGNC 29091
B06	SBH0198592	ENST00000258418.10	CAB39	ENSG00000135932	calcium binding protein 39 Source HGNC Symbol Acc HGNC 20292
B07	SBH0391901	ENST00000348335.6	CAMKK1	ENSG00000004660	calcium/calmodulin dependent protein kinase kinase 1 Source HGNC Symbol Acc HGNC 1469
B08	SBH0270041	ENST00000392474.6	CAMKK2	ENSG00000110931	calcium/calmodulin dependent protein kinase kinase 2 Source HGNC Symbol Acc HGNC 1470
B09	SBH0490696	ENST00000409219.5	CHRNA1	ENSG00000138435	cholinergic receptor nicotinic alpha 1 subunit Source HGNC Symbol Acc HGNC 1955
B10	SBH0237310	ENST00000576360.1	CHRNB1	ENSG00000170175	cholinergic receptor nicotinic beta 1 subunit Source HGNC Symbol Acc HGNC 1961
B11	SBH0531896	ENST00000539743.5	CPT1A	ENSG00000110090	carnitine palmitoyltransferase 1A Source HGNC Symbol Acc HGNC 2328
B12	SBH0574504	ENST00000312108.11	CPT1B	ENSG00000205560	carnitine palmitoyltransferase 1B Source HGNC Symbol Acc HGNC 2329
C01	SBH0670923	ENST00000598396.5	CPT1C	ENSG00000169169	carnitine palmitoyltransferase 1C Source HGNC Symbol Acc HGNC 18540
C02	SBH1219910	ENST00000636891.1	CPT2	ENSG00000157184	carnitine palmitoyltransferase 2 Source HGNC Symbol Acc HGNC 2330
C03	SBH0228731	ENST00000461638.6	CRTC2	ENSG00000160741	CREB regulated transcription coactivator 2 Source HGNC Symbol Acc HGNC 27301
C04	SBH1219912	ENST00000549356.1	CRY1	ENSG00000008405	cryptochrome circadian regulator 1 Source HGNC Symbol Acc HGNC 2384
C05	SBH0598367	ENST00000563555.1	EEF2K	ENSG00000103319	eukaryotic elongation factor 2 kinase Source HGNC Symbol Acc HGNC 24615
C06	SBH0094252	ENST00000338825.5	EIF4EBP1	ENSG00000187840	eukaryotic translation initiation factor 4E binding protein 1 Source HGNC Symbol Acc HGNC 3288
C07	SBH0538096	ENST00000593807.1	ELAVL1	ENSG00000066044	ELAV like RNA binding protein 1 Source HGNC Symbol Acc HGNC 3312
C08	SBH0282662	ENST00000635197.1	FASN	ENSG00000169710	fatty acid synthase Source HGNC Symbol Acc HGNC 3594
C09	SBH0089051	ENST00000406360.2	FOXO3	ENSG00000118689	forkhead box O3 Source HGNC Symbol Acc HGNC 3821
C10	SBH0471726	ENST00000498541.1	GPAM	ENSG00000119927	glycerol-3-phosphate acyltransferase, mitochondrial Source HGNC Symbol Acc HGNC 24865
		ENST00000482		ENSG00000	glycerol-3-phosphate acyltransferase 2, mitochondrial Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0439177	704.1	GPAT2	186281	Acc HGNC 27168
C12	SBH1220045	ENST00000323798.8	GYS1	ENSG00000104812	glycogen synthase 1 Source HGNC Symbol Acc HGNC 4706
D01	SBH0359280	ENST00000261195.2	GYS2	ENSG00000111713	glycogen synthase 2 Source HGNC Symbol Acc HGNC 4707
D02	SBH0118882	ENST00000511206.5	HMGCR	ENSG00000113161	3-hydroxy-3-methylglutaryl-CoA reductase Source HGNC Symbol Acc HGNC 5006
D03	SBH0483648	ENST00000609795.5	HNF4A	ENSG00000101076	hepatocyte nuclear factor 4 alpha Source HGNC Symbol Acc HGNC 5024
D04	SBH0198962	ENST00000600492.1	INSR	ENSG00000171105	insulin receptor Source HGNC Symbol Acc HGNC 6091
D05	SBH0111165	ENST00000349533.10	LEPR	ENSG00000116678	leptin receptor Source HGNC Symbol Acc HGNC 6554
D06	SBH0638061	ENST00000601189.1	LIPE	ENSG00000079435	lipase E, hormone sensitive type Source HGNC Symbol Acc HGNC 6621
D07	SBH0538242	ENST00000262430.6	MLYCD	ENSG00000103150	malonyl-CoA decarboxylase Source HGNC Symbol Acc HGNC 7150
D08	SBH0492696	ENST00000361445.8	MTOR	ENSG00000198793	mechanistic target of rapamycin kinase Source HGNC Symbol Acc HGNC 3942
D09	SBH0257483	ENST00000441549.7	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 Source HGNC Symbol Acc HGNC 8816
D10	SBH0488491	ENST00000614686.1	PFKFB1	ENSG00000158571	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1 Source HGNC Symbol Acc HGNC 8872
D11	SBH0170570	ENST00000545806.5	PFKFB2	ENSG00000123836	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2 Source HGNC Symbol Acc HGNC 8873
D12	SBH0359384	ENST00000360521.7	PFKFB3	ENSG00000170525	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 Source HGNC Symbol Acc HGNC 8874
E01	SBH0046014	ENST00000490115.5	PFKFB4	ENSG00000114268	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4 Source HGNC Symbol Acc HGNC 8875
E02	SBH0417676	ENST00000336615.9	PNPLA2	ENSG00000177666	patatin like phospholipase domain containing 2 Source HGNC Symbol Acc HGNC 30802
E03	SBH0648879	ENST00000506055.5	PPARGC1A	ENSG00000109819	PPARG coactivator 1 alpha Source HGNC Symbol Acc HGNC 9237
E04	SBH0295595	ENST00000309241.10	PPARGC1B	ENSG00000155846	PPARG coactivator 1 beta Source HGNC Symbol Acc HGNC 30022
E05	SBH0088930	ENST00000522385.1	PPP2CA	ENSG00000113575	protein phosphatase 2 catalytic subunit alpha Source HGNC Symbol Acc HGNC 9299
E06	SBH0201604	ENST00000523023.1	PPP2CB	ENSG00000104695	protein phosphatase 2 catalytic subunit beta Source HGNC Symbol Acc HGNC 9300
E07	SBH0592683	ENST00000454220.6	PPP2R1A	ENSG00000105568	protein phosphatase 2 scaffold subunit Aalpha Source HGNC Symbol Acc HGNC 9302
E08	SBH0598427	ENST00000341980.10	PPP2R1B	ENSG00000137713	protein phosphatase 2 scaffold subunit Abeta Source HGNC Symbol Acc HGNC 9303
E09	SBH0077913	ENST00000508545.6	PPP2R2B	ENSG00000156475	protein phosphatase 2 regulatory subunit Bbeta Source HGNC Symbol Acc HGNC 9305
E10	SBH0230240	ENST00000434095.2	PTPA	ENSG00000119383	protein phosphatase 2 phosphatase activator Source HGNC Symbol Acc HGNC 9308
E11	SBH1220332	ENST00000397128.6	PRKAA1	ENSG00000132356	protein kinase AMP-activated catalytic subunit alpha 1 Source HGNC Symbol Acc HGNC 9376
E12	SBH0060864	ENST00000371244.9	PRKAA2	ENSG00000162409	protein kinase AMP-activated catalytic subunit alpha 2 Source HGNC Symbol Acc HGNC 9377
F01	SBH0514318	ENST00000545223.1	PRKAB1	ENSG00000111725	protein kinase AMP-activated non-catalytic subunit beta 1 Source HGNC Symbol Acc HGNC 9378
F02	SBH0146629	ENST00000254101.4	PRKAB2	ENSG00000131791	protein kinase AMP-activated non-catalytic subunit beta 2 Source HGNC Symbol Acc HGNC 9379
F03	SBH0440536	ENST00000308677.8	PRKACA	ENSG00000072062	protein kinase cAMP-activated catalytic subunit alpha Source HGNC Symbol Acc HGNC 9380
F04	SBH0491110	ENST00000432111.5	PRKACB	ENSG00000142875	protein kinase cAMP-activated catalytic subunit beta Source HGNC Symbol Acc HGNC 9381
F05	SBH0638541	ENST00000550125.5	PRKAG1	ENSG00000181929	protein kinase AMP-activated non-catalytic subunit gamma 1 Source HGNC Symbol Acc HGNC 9385
F06	SBH0170149	ENST00000652136.1	PRKAG2	ENSG00000106617	protein kinase AMP-activated non-catalytic subunit gamma 2 Source HGNC Symbol Acc HGNC 9386
F07	SBH0373404	ENST00000430489.1	PRKAG3	ENSG00000115592	protein kinase AMP-activated non-catalytic subunit gamma 3 Source HGNC Symbol Acc HGNC 9387
F08	SBH0582144	ENST00000358598.6	PRKAR1A	ENSG00000108946	protein kinase cAMP-dependent type I regulatory subunit alpha Source HGNC Symbol Acc HGNC 9388
F09	SBH0407473	ENST00000406797.5	PRKAR1B	ENSG00000188191	protein kinase cAMP-dependent type I regulatory subunit beta Source HGNC Symbol Acc HGNC 9390
F10	SBH0170910	ENST00000296446.12	PRKAR2A	ENSG00000114302	protein kinase cAMP-dependent type II regulatory subunit alpha Source HGNC Symbol Acc HGNC 9391

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0209634	ENST00000393613.6	PRKAR2B	ENSG00000005249	protein kinase cAMP-dependent type II regulatory subunit beta Source HGNC Symbol Acc HGNC 9392
F12	SBH0128675	ENST00000518710.5	RB1CC1	ENSG00000023287	RB1 inducible coiled-coil 1 Source HGNC Symbol Acc HGNC 15574
G01	SBH1220379	ENST00000406116.7	RPS6KB1	ENSG00000108443	ribosomal protein S6 kinase B1 Source HGNC Symbol Acc HGNC 10436
G02	SBH0493284	ENST00000524934.5	RPS6KB2	ENSG00000175634	ribosomal protein S6 kinase B2 Source HGNC Symbol Acc HGNC 10437
G03	SBH0486982	ENST00000306801.8	RPTOR	ENSG00000141564	regulatory associated protein of MTOR complex 1 Source HGNC Symbol Acc HGNC 30287
G04	SBH0509274	ENST00000424875.2	SLC2A4	ENSG00000181856	solute carrier family 2 member 4 Source HGNC Symbol Acc HGNC 11009
G05	SBH0652491	ENST00000423161.3	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
G06	SBH0428349	ENST00000589152.5	STK11	ENSG00000118046	serine/threonine kinase 11 Source HGNC Symbol Acc HGNC 11389
G07	SBH0322912	ENST00000638193.1	STRADA	ENSG00000266173	STE20 related adaptor alpha Source HGNC Symbol Acc HGNC 30172
G08	SBH0459860	ENST00000447698.5	STRADB	ENSG00000082146	STE20 related adaptor beta Source HGNC Symbol Acc HGNC 13205
G09	SBH1220486	ENST00000445888.6	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G10	SBH0061747	ENST00000647506.1	TSC1	ENSG00000165699	TSC complex subunit 1 Source HGNC Symbol Acc HGNC 12362
G11	SBH0580963	ENST00000644399.1	TSC2	ENSG00000103197	TSC complex subunit 2 Source HGNC Symbol Acc HGNC 12363
G12	SBH1220504	ENST00000321867.6	ULK1	ENSG00000177169	unc-51 like autophagy activating kinase 1 Source HGNC Symbol Acc HGNC 12558
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	SBH1220550	ENST00000558401.6	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	SBH1220545	ENST00000396861.5	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	SBH1220546	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	SBH1220553	ENST00000546989.5	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	SBH1218553	Sybr_HGDC	HGDC	Sybr_HGDC	Human 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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