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

Human Circadian Rhythms

Cat. no. 249950 SBHS-153ZR

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	AANAT	ALAS1	ARNTL	ARNTL2	BHLHE40	BHLHE41	CAMK2A	CAMK2B	CAMK2D	CAMK2G	CARTPT	NOCT
B	CHRNB2	CLOCK	CREB1	CREB3	CRX	CRY1	CRY2	CSNK1A1	CSNK1D	CSNK1E	CSNK2A1	CSNK2A2
C	DBP	EGR1	EGR3	EPO	ESRRA	FBXL21P	FBXL3	HEBP1	HLF	HTR7	IRF1	KCNMA1
D	MAPK1	MAPK14	MAPK3	MAT2A	MTNR1A	MTNR1B	MYOD1	NCOA3	NFIL3	NKX2-5	NMS	NPAS2
E	NR1D1	NR1D2	NR2F6	OPN3	OPN4	PAX4	PER1	PER2	PER3	POU2F1	PPARA	PPARGC1A
F	PRF1	PRKACB	PRKACG	PRKAR1A	PRKAR1B	PRKAR2A	PRKAR2B	PRKCA	PRKCB	PROKR2	PTGDS	RORA
G	RORB	RORC	SLC9A3	SMAD4	SP1	SREBF1	STAT5A	TEF	TFAP2A	TGFB1	TIMELESS	WEE1
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	SBH0305086	ENST00000392492.7	AANAT	ENSG00000129673	aralkylamine N-acetyltransferase Source HGNC Symbol Acc HGNC 19
A02	SBH0131685	ENST00000493402.1	ALAS1	ENSG00000023330	5 -aminolevulinate synthase 1 Source HGNC Symbol Acc HGNC 396
A03	SBH0082062	ENST00000480685.5	ARNTL	ENSG00000133794	aryl hydrocarbon receptor nuclear translocator like Source HGNC Symbol Acc HGNC 701
A04	SBH0648087	ENST00000542388.1	ARNTL2	ENSG00000029153	aryl hydrocarbon receptor nuclear translocator like 2 Source HGNC Symbol Acc HGNC 18984
A05	SBH0192838	ENST00000467610.1	BHLHE40	ENSG00000134107	basic helix-loop-helix family member e40 Source HGNC Symbol Acc HGNC 1046
A06	SBH0655135	ENST00000541271.1	BHLHE41	ENSG00000123095	basic helix-loop-helix family member e41 Source HGNC Symbol Acc HGNC 16617
A07	SBH0641603	ENST00000508662.5	CAMK2A	ENSG00000070808	calcium/calmodulin dependent protein kinase II alpha Source HGNC Symbol Acc HGNC 1460
A08	SBH0096862	ENST00000258682.10	CAMK2B	ENSG00000058404	calcium/calmodulin dependent protein kinase II beta Source HGNC Symbol Acc HGNC 1461
A09	SBH0268155	ENST00000509594.1	CAMK2D	ENSG00000145349	calcium/calmodulin dependent protein kinase II delta Source HGNC Symbol Acc HGNC 1462
A10	SBH0045953	ENST00000372765.5	CAMK2G	ENSG00000148660	calcium/calmodulin dependent protein kinase II gamma Source HGNC Symbol Acc HGNC 1463
A11	SBH0554743	ENST00000296777.5	CARTPT	ENSG00000164326	CART prepropeptide Source HGNC Symbol Acc HGNC 24323
A12	SBH0241385	ENST00000515616.1	NOCT	ENSG00000151014	nocturnin Source HGNC Symbol Acc HGNC 14254
B01	SBH0225316	ENST00000636034.1	CHRNB2	ENSG00000160716	cholinergic receptor nicotinic beta 2 subunit Source HGNC Symbol Acc HGNC 1962
B02	SBH0083582	ENST00000513033.1	CLOCK	ENSG00000134852	clock circadian regulator Source HGNC Symbol Acc HGNC 2082
B03	SBH0077258	ENST00000353267.8	CREB1	ENSG00000118260	cAMP responsive element binding protein 1 Source HGNC Symbol Acc HGNC 2345
B04	SBH0523698	ENST00000486056.1	CREB3	ENSG00000107175	cAMP responsive element binding protein 3 Source HGNC Symbol Acc HGNC 2347
B05	SBH0117659	ENST00000602001.1	CRX	ENSG00000105392	cone-rod homeobox Source HGNC Symbol Acc HGNC 2383
B06	SBH1219912	ENST00000549356.1	CRY1	ENSG00000008405	cryptochrome circadian regulator 1 Source HGNC Symbol Acc HGNC 2384
B07	SBH0589820	ENST00000532390.5	CRY2	ENSG00000121671	cryptochrome circadian regulator 2 Source HGNC Symbol Acc HGNC 2385
B08	SBH0331395	ENST00000377843.6	CSNK1A1	ENSG00000113712	casein kinase 1 alpha 1 Source HGNC Symbol Acc HGNC 2451
B09	SBH0504777	ENST00000314028.10	CSNK1D	ENSG00000141551	casein kinase 1 delta Source HGNC Symbol Acc HGNC 2452
B10	SBH0382030	ENST00000396832.6	CSNK1E	ENSG00000213923	casein kinase 1 epsilon Source HGNC Symbol Acc HGNC 2453
B11	SBH1219915	ENST00000645187.1	CSNK2A1	ENSG00000101266	casein kinase 2 alpha 1 Source HGNC Symbol Acc HGNC 2457
B12	SBH1219916	ENST00000262506.8	CSNK2A2	ENSG00000070770	casein kinase 2 alpha 2 Source HGNC Symbol Acc HGNC 2459
C01	SBH0529152	ENST00000601104.1	DBP	ENSG00000105516	D-box binding PAR bZIP transcription factor Source HGNC Symbol Acc HGNC 2697
C02	SBH0290504	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C03	SBH0457320	ENST00000518773.1	EGR3	ENSG00000179388	early growth response 3 Source HGNC Symbol Acc HGNC 3240
C04	SBH1219979	ENST00000252723.3	EPO	ENSG00000130427	erythropoietin Source HGNC Symbol Acc HGNC 3415
C05	SBH0167638	ENST00000405666.5	ESRRA	ENSG00000173153	estrogen related receptor alpha Source HGNC Symbol Acc HGNC 3471
C06	SBH0338156	ENST00000635168.1	FBXL21P	ENSG00000164616	F-box and leucine rich repeat protein 21, pseudogene Source HGNC Symbol Acc HGNC 13600
C07	SBH0369242	ENST00000355619.10	FBXL3	ENSG00000005812	F-box and leucine rich repeat protein 3 Source HGNC Symbol Acc HGNC 13599
C08	SBH0597928	ENST00000014930.9	HEBP1	ENSG00000013583	heme binding protein 1 Source HGNC Symbol Acc HGNC 17176
C09	SBH0261434	ENST00000572002.1	HLF	ENSG00000108924	HLF, PAR bZIP transcription factor Source HGNC Symbol Acc HGNC 4977
C10	SBH0162397	ENST00000277874.10	HTR7	ENSG00000148680	5-hydroxytryptamine receptor 7 Source HGNC Symbol Acc HGNC 5302
		ENST00000245		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220122	414.9	IRF1	125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
C12	SBH0537480	ENST00000639406.1	KCNMA1	ENSG00000156113	potassium calcium-activated channel subfamily M alpha 1 Source HGNC Symbol Acc HGNC 6284
D01	SBH1220192	ENST00000544786.1	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
D02	SBH0102441	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
D03	SBH1220194	ENST00000478356.5	MAPK3	ENSG00000102882	mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877
D04	SBH0001344	ENST00000306434.8	MAT2A	ENSG00000168906	methionine adenosyltransferase 2A Source HGNC Symbol Acc HGNC 6904
D05	SBH0575739	ENST00000307161.5	MTNR1A	ENSG00000168412	melatonin receptor 1A Source HGNC Symbol Acc HGNC 7463
D06	SBH0329257	ENST00000257068.2	MTNR1B	ENSG00000134640	melatonin receptor 1B Source HGNC Symbol Acc HGNC 7464
D07	SBH0342665	ENST00000250003.4	MYOD1	ENSG00000129152	myogenic differentiation 1 Source HGNC Symbol Acc HGNC 7611
D08	SBH1220237	ENST00000371998.8	NCOA3	ENSG00000124151	nuclear receptor coactivator 3 Source HGNC Symbol Acc HGNC 7670
D09	SBH0338940	ENST00000297689.4	NFIL3	ENSG00000165030	nuclear factor, interleukin 3 regulated Source HGNC Symbol Acc HGNC 7787
D10	SBH0461083	ENST00000521848.1	NKX2-5	ENSG00000183072	NK2 homeobox 5 Source HGNC Symbol Acc HGNC 2488
D11	SBH0499984	ENST00000376865.1	NMS	ENSG00000204640	neuromedin S Source HGNC Symbol Acc HGNC 32203
D12	SBH0282232	ENST00000448812.5	NPAS2	ENSG00000170485	neuronal PAS domain protein 2 Source HGNC Symbol Acc HGNC 7895
E01	SBH0485579	ENST00000246672.4	NR1D1	ENSG00000126368	nuclear receptor subfamily 1 group D member 1 Source HGNC Symbol Acc HGNC 7962
E02	SBH0292443	ENST00000492552.5	NR1D2	ENSG00000174738	nuclear receptor subfamily 1 group D member 2 Source HGNC Symbol Acc HGNC 7963
E03	SBH0356613	ENST00000291442.3	NR2F6	ENSG00000160113	nuclear receptor subfamily 2 group F member 6 Source HGNC Symbol Acc HGNC 7977
E04	SBH0162691	ENST00000366554.3	OPN3	ENSG00000054277	opsin 3 Source HGNC Symbol Acc HGNC 14007
E05	SBH0662458	ENST00000241891.10	OPN4	ENSG00000122375	opsin 4 Source HGNC Symbol Acc HGNC 14449
E06	SBH0009986	ENST00000378740.6	PAX4	ENSG00000106331	paired box 4 Source HGNC Symbol Acc HGNC 8618
E07	SBH0546364	ENST00000578089.1	PER1	ENSG00000179094	period circadian regulator 1 Source NCBI gene Acc 5187
E08	SBH0088694	ENST00000355768.6	PER2	ENSG00000132326	period circadian regulator 2 Source HGNC Symbol Acc HGNC 8846
E09	SBH0044980	ENST00000377541.5	PER3	ENSG00000049246	period circadian regulator 3 Source HGNC Symbol Acc HGNC 8847
E10	SBH0546633	ENST00000429375.6	POU2F1	ENSG00000143190	POU class 2 homeobox 1 Source HGNC Symbol Acc HGNC 9212
E11	SBH1220322	ENST00000407236.5	PPARA	ENSG00000186951	peroxisome proliferator activated receptor alpha Source HGNC Symbol Acc HGNC 9232
E12	SBH0648879	ENST00000506055.5	PPARGC1A	ENSG00000109819	PPARG coactivator 1 alpha Source HGNC Symbol Acc HGNC 9237
F01	SBH0602829	ENST00000441259.2	PRF1	ENSG00000180644	perforin 1 Source HGNC Symbol Acc HGNC 9360
F02	SBH0491110	ENST00000432111.5	PRKACB	ENSG00000142875	protein kinase cAMP-activated catalytic subunit beta Source HGNC Symbol Acc HGNC 9381
F03	SBH0180201	ENST00000377276.4	PRKACG	ENSG00000165059	protein kinase cAMP-activated catalytic subunit gamma Source HGNC Symbol Acc HGNC 9382
F04	SBH0582144	ENST00000358598.6	PRKAR1A	ENSG00000108946	protein kinase cAMP-dependent type I regulatory subunit alpha Source HGNC Symbol Acc HGNC 9388
F05	SBH0407473	ENST00000406797.5	PRKAR1B	ENSG00000188191	protein kinase cAMP-dependent type I regulatory subunit beta Source HGNC Symbol Acc HGNC 9390
F06	SBH0170910	ENST00000296446.12	PRKAR2A	ENSG00000114302	protein kinase cAMP-dependent type II regulatory subunit alpha Source HGNC Symbol Acc HGNC 9391
F07	SBH0209634	ENST00000393613.6	PRKAR2B	ENSG00000005249	protein kinase cAMP-dependent type II regulatory subunit beta Source HGNC Symbol Acc HGNC 9392
F08	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
F09	SBH0521170	ENST00000472066.1	PRKCB	ENSG00000166501	protein kinase C beta Source HGNC Symbol Acc HGNC 9395
F10	SBH0504020	ENST00000217270.3	PROKR2	ENSG00000101292	prokineticin receptor 2 Source HGNC Symbol Acc HGNC 15836

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0077474	ENST00000371625.8	PTGDS	ENSG00000107317	prostaglandin D2 synthase Source HGNC Symbol Acc HGNC 9592
F12	SBH0660238	ENST00000551975.5	RORA	ENSG00000069667	RAR related orphan receptor A Source HGNC Symbol Acc HGNC 10258
G01	SBH0272011	ENST00000376896.8	RORB	ENSG00000198963	RAR related orphan receptor B Source HGNC Symbol Acc HGNC 10259
G02	SBH1220375	ENST00000356728.10	RORC	ENSG00000143365	RAR related orphan receptor C Source HGNC Symbol Acc HGNC 10260
G03	SBH0386680	ENST00000514375.1	SLC9A3	ENSG00000066230	solute carrier family 9 member A3 Source HGNC Symbol Acc HGNC 11073
G04	SBH1220406	ENST00000588745.5	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
G05	SBH1220419	ENST00000426431.2	SP1	ENSG00000185591	Sp1 transcription factor Source HGNC Symbol Acc HGNC 11205
G06	SBH0652491	ENST00000423161.3	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
G07	SBH0335854	ENST00000345506.8	STAT5A	ENSG00000126561	signal transducer and activator of transcription 5A Source HGNC Symbol Acc HGNC 11366
G08	SBH0149727	ENST00000413942.1	TEF	ENSG00000167074	TEF, PAR bZIP transcription factor Source HGNC Symbol Acc HGNC 11722
G09	SBH0453316	ENST00000482890.5	TFAP2A	ENSG00000137203	transcription factor AP-2 alpha Source HGNC Symbol Acc HGNC 11742
G10	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G11	SBH0169775	ENST00000229201.4	TIMELESS	ENSG00000111602	timeless circadian regulator Source HGNC Symbol Acc HGNC 11813
G12	SBH1220523	ENST00000450114.7	WEE1	ENSG00000166483	WEE1 G2 checkpoint kinase Source HGNC Symbol Acc HGNC 12761
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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