

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

## Human cAMP / Calcium Signaling PathwayFinder

Cat. no. 249950 SBHS-066ZA

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ADRB1	AHR	AMD1	AREG	ATF3	BCL2	BDNF	BRCA1	CALB1	CALB2	CALM1	CALR
B	CCNA1	CCND1	CDK5	CDKN2B	CGA	CHGA	CNN1	CREB1	CREM	CTF1	CCN1	DDIT3
C	DUSP1	EGR1	EGR2	ENO2	FGF6	FOS	FOSB	GCG	GEM	GIPR	HK2	HSPA4
D	HSPA5	IL2	IL6	INHBA	JUNB	JUND	KCNAS	LDHA	MAF	MIF	NCAM1	NF1
E	NOS2	NPY	NR4A2	PCK2	PCNA	PENK	PER1	PLAT	PLN	PMAIP1	POU1F1	POU2AF1
F	PPP1R15A	PPP2CA	PRKAR1A	PRL	PTGS2	RB1	S100A12	S100A6	S100G	SCG2	SGK1	SLC18A1
G	SOD2	SRF	SST	SSTR2	STAT3	TACR1	TGFB3	TH	THBS1	TNF	VCL	VIP
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	SBH0305943	ENST00000369295.3	ADRB1	ENSG00000043591	adrenoceptor beta 1 Source HGNC Symbol Acc HGNC 285
A02	SBH0503529	ENST00000492120.1	AHR	ENSG00000106546	aryl hydrocarbon receptor Source HGNC Symbol Acc HGNC 348
A03	SBH0026274	ENST00000368882.7	AMD1	ENSG00000123505	adenosylmethionine decarboxylase 1 Source HGNC Symbol Acc HGNC 457
A04	SBH0390048	ENST00000502307.1	AREG	ENSG00000109321	amphiregulin Source HGNC Symbol Acc HGNC 651
A05	SBH0266951	ENST00000366983.5	ATF3	ENSG00000162772	activating transcription factor 3 Source HGNC Symbol Acc HGNC 785
A06	SBH1219786	ENST00000398117.1	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A07	SBH0006040	ENST00000525528.1	BDNF	ENSG00000176697	brain derived neurotrophic factor Source HGNC Symbol Acc HGNC 1033
A08	SBH1219814	ENST00000357654.8	BRCA1	ENSG00000012048	BRCA1, DNA repair associated Source HGNC Symbol Acc HGNC 1100
A09	SBH0055162	ENST00000265431.7	CALB1	ENSG00000104327	calbindin 1 Source HGNC Symbol Acc HGNC 1434
A10	SBH0087559	ENST00000302628.9	CALB2	ENSG00000172137	calbindin 2 Source HGNC Symbol Acc HGNC 1435
A11	SBH0367465	ENST00000553542.5	CALM1	ENSG00000198668	calmodulin 1 Source HGNC Symbol Acc HGNC 1442
A12	SBH0031560	ENST00000316448.9	CALR	ENSG00000179218	calreticulin Source HGNC Symbol Acc HGNC 1455
B01	SBH0219497	ENST00000440264.5	CCNA1	ENSG00000133101	cyclin A1 Source HGNC Symbol Acc HGNC 1577
B02	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
B03	SBH0103479	ENST00000485972.6	CDK5	ENSG00000164885	cyclin dependent kinase 5 Source HGNC Symbol Acc HGNC 1774
B04	SBH1219880	ENST00000276925.7	CDKN2B	ENSG00000147883	cyclin dependent kinase inhibitor 2B Source HGNC Symbol Acc HGNC 1788
B05	SBH0117391	ENST00000630630.2	CGA	ENSG00000135346	glycoprotein hormones, alpha polypeptide Source HGNC Symbol Acc HGNC 1885
B06	SBH0432677	ENST00000334654.4	CHGA	ENSG00000100604	chromogranin A Source HGNC Symbol Acc HGNC 1929
B07	SBH0348485	ENST00000535659.6	CNN1	ENSG00000130176	calponin 1 Source HGNC Symbol Acc HGNC 2155
B08	SBH0077258	ENST00000353267.8	CREB1	ENSG00000118260	cAMP responsive element binding protein 1 Source HGNC Symbol Acc HGNC 2345
B09	SBH0192533	ENST00000474362.5	CREM	ENSG00000095794	cAMP responsive element modulator Source HGNC Symbol Acc HGNC 2352
B10	SBH0473752	ENST00000279804.2	CTF1	ENSG00000150281	cardiotrophin 1 Source HGNC Symbol Acc HGNC 2499
B11	SBH0103568	ENST00000480413.1	CCN1	ENSG00000142871	cellular communication network factor 1 Source HGNC Symbol Acc HGNC 2654
B12	SBH0602366	ENST00000346473.7	DDIT3	ENSG00000175197	DNA damage inducible transcript 3 Source HGNC Symbol Acc HGNC 2726
C01	SBH1219962	ENST00000239223.4	DUSP1	ENSG00000120129	dual specificity phosphatase 1 Source HGNC Symbol Acc HGNC 3064
C02	SBH0290504	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C03	SBH0476440	ENST00000242480.4	EGR2	ENSG00000122877	early growth response 2 Source HGNC Symbol Acc HGNC 3239
C04	SBH1219976	ENST00000229277.6	ENO2	ENSG00000111674	enolase 2 Source HGNC Symbol Acc HGNC 3353
C05	SBH0454239	ENST00000228837.2	FGF6	ENSG00000111241	fibroblast growth factor 6 Source HGNC Symbol Acc HGNC 3684
C06	SBH1220004	ENST00000554617.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C07	SBH0296954	ENST00000443841.6	FOSB	ENSG00000125740	FosB proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3797
C08	SBH0328879	ENST00000497568.1	GCG	ENSG00000115263	glucagon Source HGNC Symbol Acc HGNC 4191
C09	SBH0022069	ENST00000396194.6	GEM	ENSG00000164949	GTP binding protein overexpressed in skeletal muscle Source HGNC Symbol Acc HGNC 4234
C10	SBH0364955	ENST00000263281.7	GIPR	ENSG00000010310	gastric inhibitory polypeptide receptor Source HGNC Symbol Acc HGNC 4271
		ENST00000290		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0186371	573.6	HK2	159399	hexokinase 2 Source HGNC Symbol Acc HGNC 4923
C12	SBH1220071	ENST00000617074.4	HSPA4	ENSG00000170606	heat shock protein family A (Hsp70) member 4 Source HGNC Symbol Acc HGNC 5237
D01	SBH1220072	ENST00000324460.7	HSPA5	ENSG00000044574	heat shock protein family A (Hsp70) member 5 Source HGNC Symbol Acc HGNC 5238
D02	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D03	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D04	SBH1220116	ENST00000242208.5	INHBA	ENSG00000122641	inhibin subunit beta A Source HGNC Symbol Acc HGNC 6066
D05	SBH1220143	ENST00000302754.6	JUNB	ENSG00000171223	JunB proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6205
D06	SBH0615164	ENST00000600972.1	JUND	ENSG00000130522	JunD proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6206
D07	SBH0199713	ENST00000252321.4	KCNA5	ENSG00000130037	potassium voltage-gated channel subfamily A member 5 Source HGNC Symbol Acc HGNC 6224
D08	SBH1225370	ENST00000540430.5	LDHA	ENSG00000134333	lactate dehydrogenase A Source HGNC Symbol Acc HGNC 6535
D09	SBH0429226	ENST00000326043.5	MAF	ENSG00000178573	MAF bZIP transcription factor Source HGNC Symbol Acc HGNC 6776
D10	SBH1220212	ENST00000215754.8	MIF	ENSG00000240972	macrophage migration inhibitory factor Source HGNC Symbol Acc HGNC 7097
D11	SBH1220236	ENST00000618266.4	NCAM1	ENSG00000149294	neural cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 7656
D12	SBH0472829	ENST00000358273.8	NF1	ENSG00000196712	neurofibromin 1 Source HGNC Symbol Acc HGNC 7765
E01	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
E02	SBH0377787	ENST00000407573.5	NPY	ENSG00000122585	neuropeptide Y Source HGNC Symbol Acc HGNC 7955
E03	SBH0444745	ENST00000339562.9	NR4A2	ENSG00000153234	nuclear receptor subfamily 4 group A member 2 Source HGNC Symbol Acc HGNC 7981
E04	SBH0202599	ENST00000560736.5	PCK2	ENSG00000100889	phosphoenolpyruvate carboxykinase 2, mitochondrial Source HGNC Symbol Acc HGNC 8725
E05	SBH0251688	ENST00000379160.3	PCNA	ENSG00000132646	proliferating cell nuclear antigen Source HGNC Symbol Acc HGNC 8729
E06	SBH0387760	ENST00000518974.5	PENK	ENSG00000181195	proenkephalin Source HGNC Symbol Acc HGNC 8831
E07	SBH0546364	ENST00000578089.1	PER1	ENSG00000179094	period circadian regulator 1 Source NCBI gene Acc 5187
E08	SBH0432338	ENST00000220809.8	PLAT	ENSG00000104368	plasminogen activator, tissue type Source HGNC Symbol Acc HGNC 9051
E09	SBH0658348	ENST00000357525.6	PLN	ENSG00000198523	phospholamban Source HGNC Symbol Acc HGNC 9080
E10	SBH0088081	ENST00000316660.6	PMAIP1	ENSG00000141682	phorbol-12-myristate-13-acetate-induced protein 1 Source HGNC Symbol Acc HGNC 9108
E11	SBH0473949	ENST00000350375.6	POU1F1	ENSG00000064835	POU class 1 homeobox 1 Source HGNC Symbol Acc HGNC 9210
E12	SBH0261264	ENST00000515029.2	POU2AF1	ENSG00000110777	POU class 2 associating factor 1 Source HGNC Symbol Acc HGNC 9211
F01	SBH1220326	ENST00000200453.6	PPP1R15A	ENSG00000087074	protein phosphatase 1 regulatory subunit 15A Source HGNC Symbol Acc HGNC 14375
F02	SBH0088930	ENST00000522385.1	PPP2CA	ENSG00000113575	protein phosphatase 2 catalytic subunit alpha Source HGNC Symbol Acc HGNC 9299
F03	SBH0582144	ENST00000358598.6	PRKAR1A	ENSG00000108946	protein kinase cAMP-dependent type I regulatory subunit alpha Source HGNC Symbol Acc HGNC 9388
F04	SBH0553464	ENST00000615510.4	PRL	ENSG00000172179	prolactin Source HGNC Symbol Acc HGNC 9445
F05	SBH1220344	ENST00000367468.10	PTGS2	ENSG00000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
F06	SBH0093533	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
F07	SBH0217597	ENST00000368737.5	S100A12	ENSG00000163221	S100 calcium binding protein A12 Source HGNC Symbol Acc HGNC 10489
F08	SBH0242143	ENST00000496817.5	S100A6	ENSG00000197956	S100 calcium binding protein A6 Source HGNC Symbol Acc HGNC 10496
F09	SBH0126166	ENST00000380200.3	S100G	ENSG00000169906	S100 calcium binding protein G Source HGNC Symbol Acc HGNC 1436
F10	SBH0413162	ENST00000421386.1	SCG2	ENSG00000171951	secretogranin II Source HGNC Symbol Acc HGNC 10575

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0624710	ENST00000528577.5	SGK1	ENSG00000118515	serum/glucocorticoid regulated kinase 1 Source HGNC Symbol Acc HGNC 10810
F12	SBH0512586	ENST00000519026.5	SLC18A1	ENSG00000036565	solute carrier family 18 member A1 Source HGNC Symbol Acc HGNC 10934
G01	SBH1220414	ENST00000535561.5	SOD2	ENSG00000112096	superoxide dismutase 2 Source HGNC Symbol Acc HGNC 11180
G02	SBH0145486	ENST00000265354.6	SRF	ENSG00000112658	serum response factor Source HGNC Symbol Acc HGNC 11291
G03	SBH0607031	ENST00000287641.4	SST	ENSG00000157005	somatostatin Source HGNC Symbol Acc HGNC 11329
G04	SBH0022636	ENST00000579323.5	SSTR2	ENSG00000180616	somatostatin receptor 2 Source HGNC Symbol Acc HGNC 11331
G05	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G06	SBH0301003	ENST00000409848.3	TACR1	ENSG00000115353	tachykinin receptor 1 Source HGNC Symbol Acc HGNC 11526
G07	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G08	SBH0245945	ENST00000412076.1	TH	ENSG00000180176	tyrosine hydroxylase Source HGNC Symbol Acc HGNC 11782
G09	SBH1220450	ENST00000260356.5	THBS1	ENSG00000137801	thrombospondin 1 Source HGNC Symbol Acc HGNC 11785
G10	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G11	SBH0626257	ENST00000478896.2	VCL	ENSG00000035403	vinculin Source HGNC Symbol Acc HGNC 12665
G12	SBH0266069	ENST00000367244.8	VIP	ENSG00000146469	vasoactive intestinal peptide Source HGNC Symbol Acc HGNC 12693
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 $\mu$ 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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