

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

## Human Obesity

Cat. no. 249950 SBHS-017ZA

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	ADCYAP1	ADCYAP1R1	ADIPOQ	ADIPOR1	ADIPOR2	ADRA2B	ADRB1	AGRP	APOA4	ATRN	BDNF	BRS3
B	C3	CALCA	CALCR	CARTPT	CCK	CCKAR	CLPS	CNR1	CNTFR	CPD	CPE	CRHR1
C	DRD1	DRD2	GAL	GALR1	GCG	GCGR	GH1	GH2	GHR	GHRL	GHSR	GLP1R
D	GRP	GRPR	HCRT	HCRT1	HRH1	HTR2C	IAPP	IL1A	IL1B	IL1R1	IL6	IL6R
E	INS	INSR	LEP	LEPR	MC3R	MCHR1	NMB	NMBR	NMU	NMUR1	NPY	NPY1R
F	NR3C1	NTRK2	NTS	NTSR1	OPRK1	OPRM1	POMC	PPARA	PPARG	PPARGC1A	PRLHR	PTPN1
G	PYY	RAMP3	SIGMAR1	SORT1	SST	SSTR2	THRB	TNF	TRH	UCN	UCP1	ZFP91
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	SBH0575318	ENST00000450565.8	ADCYAP1	ENSG00000141433	adenylate cyclase activating polypeptide 1 Source HGNC Symbol Acc HGNC 241
A02	SBH0131806	ENST00000409363.5	ADCYAP1R1	ENSG00000078549	ADCYAP receptor type I Source HGNC Symbol Acc HGNC 242
A03	SBH1219727	ENST00000320741.7	ADIPOQ	ENSG00000181092	adiponectin, C1Q and collagen domain containing Source HGNC Symbol Acc HGNC 13633
A04	SBH0648796	ENST00000340990.10	ADIPOR1	ENSG00000159346	adiponectin receptor 1 Source HGNC Symbol Acc HGNC 24040
A05	SBH0568791	ENST00000543456.1	ADIPOR2	ENSG00000006831	adiponectin receptor 2 Source HGNC Symbol Acc HGNC 24041
A06	SBH0266728	ENST00000620793.2	ADRA2B	ENSG00000274286	adrenoceptor alpha 2B Source HGNC Symbol Acc HGNC 282
A07	SBH0305943	ENST00000369295.3	ADRB1	ENSG00000043591	adrenoceptor beta 1 Source HGNC Symbol Acc HGNC 285
A08	SBH0324360	ENST00000290953.2	AGRP	ENSG00000159723	agouti related neuropeptide Source HGNC Symbol Acc HGNC 330
A09	SBH0061386	ENST00000357780.5	APOA4	ENSG00000110244	apolipoprotein A4 Source HGNC Symbol Acc HGNC 602
A10	SBH0401003	ENST00000262919.10	ATRN	ENSG00000088812	atractin Source HGNC Symbol Acc HGNC 885
A11	SBH0006040	ENST00000525528.1	BDNF	ENSG00000176697	brain derived neurotrophic factor Source HGNC Symbol Acc HGNC 1033
A12	SBH0439603	ENST00000370648.4	BRS3	ENSG00000102239	bombesin receptor subtype 3 Source HGNC Symbol Acc HGNC 1113
B01	SBH0244130	ENST00000245907.10	C3	ENSG00000125730	complement C3 Source HGNC Symbol Acc HGNC 1318
B02	SBH0441635	ENST00000331587.8	CALCA	ENSG00000110680	calcitonin related polypeptide alpha Source HGNC Symbol Acc HGNC 1437
B03	SBH0021274	ENST00000421592.6	CALCR	ENSG00000004948	calcitonin receptor Source HGNC Symbol Acc HGNC 1440
B04	SBH0554743	ENST00000296777.5	CARTPT	ENSG00000164326	CART prepropeptide Source HGNC Symbol Acc HGNC 24323
B05	SBH0272659	ENST00000396169.6	CCK	ENSG00000187094	cholecystokinin Source HGNC Symbol Acc HGNC 1569
B06	SBH0291634	ENST00000295589.3	CCKAR	ENSG00000163394	cholecystokinin A receptor Source HGNC Symbol Acc HGNC 1570
B07	SBH0456719	ENST00000616014.3	CLPS	ENSG00000137392	colipase Source HGNC Symbol Acc HGNC 2085
B08	SBH0064955	ENST00000428600.2	CNR1	ENSG00000118432	cannabinoid receptor 1 Source HGNC Symbol Acc HGNC 2159
B09	SBH0562603	ENST00000610543.4	CNTFR	ENSG00000122756	ciliary neurotrophic factor receptor Source HGNC Symbol Acc HGNC 2170
B10	SBH0580929	ENST00000543464.6	CPD	ENSG00000108582	carboxypeptidase D Source HGNC Symbol Acc HGNC 2301
B11	SBH0531530	ENST00000402744.9	CPE	ENSG00000109472	carboxypeptidase E Source HGNC Symbol Acc HGNC 2303
B12	SBH0632511	ENST00000581479.1	CRHR1	ENSG00000120088	corticotropin releasing hormone receptor 1 Source HGNC Symbol Acc HGNC 2357
C01	SBH0389175	ENST00000393752.3	DRD1	ENSG00000184845	dopamine receptor D1 Source HGNC Symbol Acc HGNC 3020
C02	SBH0344008	ENST00000535984.1	DRD2	ENSG00000149295	dopamine receptor D2 Source HGNC Symbol Acc HGNC 3023
C03	SBH0403317	ENST00000265643.4	GAL	ENSG00000069482	galanin and GMAP prepropeptide Source HGNC Symbol Acc HGNC 4114
C04	SBH0195798	ENST00000299727.4	GALR1	ENSG00000166573	galanin receptor 1 Source HGNC Symbol Acc HGNC 4132
C05	SBH0328879	ENST00000497568.1	GCG	ENSG00000115263	glucagon Source HGNC Symbol Acc HGNC 4191
C06	SBH0344353	ENST00000573428.1	GCGR	ENSG00000215644	glucagon receptor Source HGNC Symbol Acc HGNC 4192
C07	SBH0272477	ENST00000617086.1	GH1	ENSG00000259384	growth hormone 1 Source HGNC Symbol Acc HGNC 4261
C08	SBH0258932	ENST00000622506.4	GH2	ENSG00000136487	growth hormone 2 Source HGNC Symbol Acc HGNC 4262
C09	SBH0038120	ENST00000230882.9	GHR	ENSG00000112964	growth hormone receptor Source HGNC Symbol Acc HGNC 4263
C10	SBH0108290	ENST00000422159.5	GHRL	ENSG00000157017	ghrelin and obestatin prepropeptide Source HGNC Symbol Acc HGNC 18129
		ENST00000241		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0496384	256.2	GHSR	121853	growth hormone secretagogue receptor Source HGNC Symbol Acc HGNC 4267
C12	SBH0033219	ENST00000373256.5	GLP1R	ENSG00000112164	glucagon like peptide 1 receptor Source HGNC Symbol Acc HGNC 4324
D01	SBH0605841	ENST00000529320.2	GRP	ENSG00000134443	gastrin releasing peptide Source HGNC Symbol Acc HGNC 4605
D02	SBH0355522	ENST00000380289.2	GRPR	ENSG00000126010	gastrin releasing peptide receptor Source HGNC Symbol Acc HGNC 4609
D03	SBH0557487	ENST00000293330.1	HCRT	ENSG00000161610	hypocretin neuropeptide precursor Source HGNC Symbol Acc HGNC 4847
D04	SBH0355507	ENST00000373706.9	HCRTR1	ENSG00000121764	hypocretin receptor 1 Source HGNC Symbol Acc HGNC 4848
D05	SBH0221143	ENST00000431010.2	HRH1	ENSG00000196639	histamine receptor H1 Source HGNC Symbol Acc HGNC 5182
D06	SBH0560764	ENST00000371950.3	HTR2C	ENSG00000147246	5-hydroxytryptamine receptor 2C Source HGNC Symbol Acc HGNC 5295
D07	SBH0054070	ENST00000240652.7	IAPP	ENSG00000121351	islet amyloid polypeptide Source HGNC Symbol Acc HGNC 5329
D08	SBH0663647	ENST00000263339.3	IL1A	ENSG00000115008	interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991
D09	SBH0079231	ENST00000263341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
D10	SBH1220104	ENST00000424272.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
D11	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D12	SBH1220112	ENST00000368485.8	IL6R	ENSG00000160712	interleukin 6 receptor Source HGNC Symbol Acc HGNC 6019
E01	SBH0403664	ENST00000250971.7	INS	ENSG00000254647	insulin Source HGNC Symbol Acc HGNC 6081
E02	SBH0198962	ENST00000600492.1	INSR	ENSG00000171105	insulin receptor Source HGNC Symbol Acc HGNC 6091
E03	SBH1220169	ENST00000308868.5	LEP	ENSG00000174697	leptin Source HGNC Symbol Acc HGNC 6553
E04	SBH0111165	ENST00000349533.10	LEPR	ENSG00000116678	leptin receptor Source HGNC Symbol Acc HGNC 6554
E05	SBH0054682	ENST00000243911.2	MC3R	ENSG00000124089	melanocortin 3 receptor Source HGNC Symbol Acc HGNC 6931
E06	SBH0401193	ENST00000498400.1	MCHR1	ENSG00000128285	melanin concentrating hormone receptor 1 Source HGNC Symbol Acc HGNC 4479
E07	SBH0373289	ENST00000360476.8	NMB	ENSG00000197696	neuromedin B Source HGNC Symbol Acc HGNC 7842
E08	SBH0580522	ENST00000258042.1	NMBR	ENSG00000135577	neuromedin B receptor Source HGNC Symbol Acc HGNC 7843
E09	SBH0136817	ENST00000509371.1	NMU	ENSG00000109255	neuromedin U Source HGNC Symbol Acc HGNC 7859
E10	SBH0551864	ENST00000305141.5	NMUR1	ENSG00000171596	neuromedin U receptor 1 Source HGNC Symbol Acc HGNC 4518
E11	SBH0377787	ENST00000407573.5	NPY	ENSG00000122585	neuropeptide Y Source HGNC Symbol Acc HGNC 7955
E12	SBH0089061	ENST00000509586.5	NPY1R	ENSG00000164128	neuropeptide Y receptor Y1 Source HGNC Symbol Acc HGNC 7956
F01	SBH1220280	ENST00000652686.1	NR3C1	ENSG00000113580	nuclear receptor subfamily 3 group C member 1 Source HGNC Symbol Acc HGNC 7978
F02	SBH0629742	ENST00000277120.7	NTRK2	ENSG00000148053	neurotrophic receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 8032
F03	SBH0211131	ENST00000551529.5	NTS	ENSG00000133636	neurotensin Source HGNC Symbol Acc HGNC 8038
F04	SBH0207698	ENST00000370501.4	NTSR1	ENSG00000101188	neurotensin receptor 1 Source HGNC Symbol Acc HGNC 8039
F05	SBH0645790	ENST00000265572.8	OPRK1	ENSG00000082556	opioid receptor kappa 1 Source HGNC Symbol Acc HGNC 8154
F06	SBH0612447	ENST00000522555.5	OPRM1	ENSG00000112038	opioid receptor mu 1 Source HGNC Symbol Acc HGNC 8156
F07	SBH0165870	ENST00000405623.5	POMC	ENSG00000115138	proopiomelanocortin Source HGNC Symbol Acc HGNC 9201
F08	SBH1220322	ENST00000407236.5	PPARA	ENSG00000186951	peroxisome proliferator activated receptor alpha Source HGNC Symbol Acc HGNC 9232
F09	SBH0521265	ENST00000652522.1	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F10	SBH0648879	ENST00000506055.5	PPARGC1A	ENSG00000109819	PPARG coactivator 1 alpha Source HGNC Symbol Acc HGNC 9237

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0286963	ENST00000636925.1	PRLHR	ENSG00000119973	prolactin releasing hormone receptor Source HGNC Symbol Acc HGNC 4464
F12	SBH0048297	ENST00000541713.5	PTPN1	ENSG00000196396	protein tyrosine phosphatase, non-receptor type 1 Source HGNC Symbol Acc HGNC 9642
G01	SBH0545752	ENST00000360085.6	PYY	ENSG00000131096	peptide YY Source HGNC Symbol Acc HGNC 9748
G02	SBH0579803	ENST00000481345.1	RAMP3	ENSG00000122679	receptor activity modifying protein 3 Source HGNC Symbol Acc HGNC 9845
G03	SBH0627788	ENST00000461426.1	SIGMAR1	ENSG00000147955	sigma non-opioid intracellular receptor 1 Source HGNC Symbol Acc HGNC 8157
G04	SBH0601974	ENST00000483508.5	SORT1	ENSG00000134243	sortilin 1 Source HGNC Symbol Acc HGNC 11186
G05	SBH0607031	ENST00000287641.4	SST	ENSG00000157005	somatostatin Source HGNC Symbol Acc HGNC 11329
G06	SBH0022636	ENST00000579323.5	SSTR2	ENSG00000180616	somatostatin receptor 2 Source HGNC Symbol Acc HGNC 11331
G07	SBH0073140	ENST00000396671.7	THRB	ENSG00000151090	thyroid hormone receptor beta Source HGNC Symbol Acc HGNC 11799
G08	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G09	SBH0630321	ENST00000507066.1	TRH	ENSG00000170893	thyrotropin releasing hormone Source HGNC Symbol Acc HGNC 12298
G10	SBH0131012	ENST00000296099.2	UCN	ENSG00000163794	urocortin Source HGNC Symbol Acc HGNC 12516
G11	SBH0666067	ENST00000262999.4	UCP1	ENSG00000109424	uncoupling protein 1 Source HGNC Symbol Acc HGNC 12517
G12	SBH0117647	ENST00000316059.7	ZFP91	ENSG00000186660	ZFP91 zinc finger protein Source HGNC Symbol Acc HGNC 14983
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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