

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

## Human GPCR Signaling PathwayFinder

Cat. no. 249950 SBHS-071ZA

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	ADCY5	ADORA2A	ADRB1	ADRB2	AGT	AGTR1	AGTR2	AGTRAP	AKT1	ARRB1	ARRB2	ADGRB1
B	BCL2	BCL2L1	CALCR	CALCL1	CASR	CCL2	CCL4	CCND1	CCNE1	CCNE2	CDKN1A	CDKN1B
C	CFLAR	COL1A1	CRHR1	CRHR2	CCN2	CYP19A1	DRD1	DRD2	DUSP14	EDN1	EGR1	ELK1
D	ELK4	FGF2	FOS	GALR2	GCGR	GNAQ	GNAS	GRM1	GRM2	GRM4	GRM5	GRM7
E	ICAM1	IL1B	IL1R1	IL1R2	IL2	JUN	JUNB	LHCGR	LPAR1	LPAR2	MAX	MMP9
F	MYC	NOS2	OPRD1	OPRK1	PDPK1	PIK3CG	PRKCA	PTGDR	PTGS2	PTH1R	RGS2	RHO
G	S1PR1	S1PR2	S1PR3	SCTR	SERPINE1	SOCS1	TNF	TSHR	UCP1	VCAM1	VEGFA	YWHAZ
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	SBH0330011	ENST00000466617.5	ADCY5	ENSG00000173175	adenylate cyclase 5 Source HGNC Symbol Acc HGNC 236
A02	SBH0613178	ENST00000467385.5	ADORA2A	ENSG00000128271	adenosine A2a receptor Source HGNC Symbol Acc HGNC 263
A03	SBH0305943	ENST00000369295.3	ADRB1	ENSG00000043591	adrenoceptor beta 1 Source HGNC Symbol Acc HGNC 285
A04	SBH0519738	ENST00000305988.5	ADRB2	ENSG00000169252	adrenoceptor beta 2 Source HGNC Symbol Acc HGNC 286
A05	SBH1219729	ENST00000366667.5	AGT	ENSG00000135744	angiotensinogen Source HGNC Symbol Acc HGNC 333
A06	SBH0123687	ENST00000418473.6	AGTR1	ENSG00000144891	angiotensin II receptor type 1 Source HGNC Symbol Acc HGNC 336
A07	SBH0278237	ENST00000371906.5	AGTR2	ENSG00000180772	angiotensin II receptor type 2 Source HGNC Symbol Acc HGNC 338
A08	SBH0163221	ENST00000376629.8	AGTRAP	ENSG00000177674	angiotensin II receptor associated protein Source HGNC Symbol Acc HGNC 13539
A09	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A10	SBH0254247	ENST00000533609.5	ARRB1	ENSG00000137486	arrestin beta 1 Source HGNC Symbol Acc HGNC 711
A11	SBH0319642	ENST00000574502.5	ARRB2	ENSG00000141480	arrestin beta 2 Source HGNC Symbol Acc HGNC 712
A12	SBH0575720	ENST00000323289.6	ADGRB1	ENSG00000181790	adhesion G protein-coupled receptor B1 Source HGNC Symbol Acc HGNC 943
B01	SBH1219786	ENST00000398117.1	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
B02	SBH0216029	ENST00000450273.1	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
B03	SBH0021274	ENST00000421592.6	CALCR	ENSG00000004948	calcitonin receptor Source HGNC Symbol Acc HGNC 1440
B04	SBH0635726	ENST00000410068.5	CALCRL	ENSG00000064989	calcitonin receptor like receptor Source HGNC Symbol Acc HGNC 16709
B05	SBH0352124	ENST00000638421.1	CASR	ENSG00000036828	calcium sensing receptor Source HGNC Symbol Acc HGNC 1514
B06	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
B07	SBH1219839	ENST00000615863.2	CCL4	ENSG00000275302	C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630
B08	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
B09	SBH1219846	ENST00000262643.8	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
B10	SBH0398871	ENST00000521809.5	CCNE2	ENSG00000175305	cyclin E2 Source HGNC Symbol Acc HGNC 1590
B11	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B12	SBH1219879	ENST00000442489.1	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
C01	SBH1219883	ENST00000462763.5	CFLAR	ENSG00000003402	CASP8 and FADD like apoptosis regulator Source HGNC Symbol Acc HGNC 1876
C02	SBH0268763	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
C03	SBH0632511	ENST00000581479.1	CRHR1	ENSG00000120088	corticotropin releasing hormone receptor 1 Source HGNC Symbol Acc HGNC 2357
C04	SBH0297140	ENST00000341843.8	CRHR2	ENSG00000106113	corticotropin releasing hormone receptor 2 Source HGNC Symbol Acc HGNC 2358
C05	SBH1219917	ENST00000367976.4	CCN2	ENSG00000118523	cellular communication network factor 2 Source HGNC Symbol Acc HGNC 2500
C06	SBH0032966	ENST00000405913.7	CYP19A1	ENSG00000137869	cytochrome P450 family 19 subfamily A member 1 Source HGNC Symbol Acc HGNC 2594
C07	SBH0389175	ENST00000393752.3	DRD1	ENSG00000184845	dopamine receptor D1 Source HGNC Symbol Acc HGNC 3020
C08	SBH0344008	ENST00000535984.1	DRD2	ENSG00000149295	dopamine receptor D2 Source HGNC Symbol Acc HGNC 3023
C09	SBH0095320	ENST00000614411.1	DUSP14	ENSG00000276023	dual specificity phosphatase 14 Source HGNC Symbol Acc HGNC 17007
C10	SBH1219968	ENST00000379375.6	EDN1	ENSG00000078401	endothelin 1 Source HGNC Symbol Acc HGNC 3176
		ENST00000239		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0290504	938.5	EGR1	120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C12	SBH1219973	ENST00000376983.8	ELK1	ENSG00000126767	ELK1, ETS transcription factor Source HGNC Symbol Acc HGNC 3321
D01	SBH0332166	ENST00000468523.2	ELK4	ENSG00000158711	ELK4, ETS transcription factor Source HGNC Symbol Acc HGNC 3326
D02	SBH1220000	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
D03	SBH1220004	ENST00000554617.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
D04	SBH0167966	ENST00000329003.4	GALR2	ENSG00000182687	galanin receptor 2 Source HGNC Symbol Acc HGNC 4133
D05	SBH0344353	ENST00000573428.1	GCGR	ENSG00000215644	glucagon receptor Source HGNC Symbol Acc HGNC 4192
D06	SBH0333179	ENST00000411677.1	GNAQ	ENSG00000156052	G protein subunit alpha q Source HGNC Symbol Acc HGNC 4390
D07	SBH0353772	ENST00000313949.11	GNAS	ENSG00000087460	GNAS complex locus Source HGNC Symbol Acc HGNC 4392
D08	SBH0643522	ENST00000492807.6	GRM1	ENSG00000152822	glutamate metabotropic receptor 1 Source HGNC Symbol Acc HGNC 4593
D09	SBH0444663	ENST00000395052.8	GRM2	ENSG00000164082	glutamate metabotropic receptor 2 Source HGNC Symbol Acc HGNC 4594
D10	SBH0500018	ENST00000609278.1	GRM4	ENSG00000124493	glutamate metabotropic receptor 4 Source HGNC Symbol Acc HGNC 4596
D11	SBH0239510	ENST00000305432.9	GRM5	ENSG00000168959	glutamate metabotropic receptor 5 Source HGNC Symbol Acc HGNC 4597
D12	SBH0235729	ENST00000445087.1	GRM7	ENSG00000196277	glutamate metabotropic receptor 7 Source HGNC Symbol Acc HGNC 4599
E01	SBH1220076	ENST00000264832.8	ICAM1	ENSG00000090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
E02	SBH0079231	ENST00000263341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
E03	SBH1220104	ENST00000424272.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
E04	SBH0202838	ENST00000332549.8	IL1R2	ENSG00000115590	interleukin 1 receptor type 2 Source HGNC Symbol Acc HGNC 5994
E05	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
E06	SBH0613340	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
E07	SBH1220143	ENST00000302754.6	JUNB	ENSG00000171223	JunB proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6205
E08	SBH0501211	ENST00000294954.12	LHCGR	ENSG00000138039	luteinizing hormone/choriogonadotropin receptor Source HGNC Symbol Acc HGNC 6585
E09	SBH0372473	ENST00000358883.8	LPAR1	ENSG00000198121	lysophosphatidic acid receptor 1 Source HGNC Symbol Acc HGNC 3166
E10	SBH0665568	ENST00000542587.5	LPAR2	ENSG00000064547	lysophosphatidic acid receptor 2 Source HGNC Symbol Acc HGNC 3168
E11	SBH0511192	ENST00000554709.1	MAX	ENSG00000125952	MYC associated factor X Source HGNC Symbol Acc HGNC 6913
E12	SBH0471278	ENST00000372330.3	MMP9	ENSG00000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
F01	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
F02	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F03	SBH0293300	ENST00000621425.1	OPRD1	ENSG00000116329	opioid receptor delta 1 Source HGNC Symbol Acc HGNC 8153
F04	SBH0645790	ENST00000265572.8	OPRK1	ENSG00000082556	opioid receptor kappa 1 Source HGNC Symbol Acc HGNC 8154
F05	SBH0257483	ENST00000441549.7	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 Source HGNC Symbol Acc HGNC 8816
F06	SBH1220313	ENST00000496166.6	PIK3CG	ENSG00000105851	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source HGNC Symbol Acc HGNC 8978
F07	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
F08	SBH0415918	ENST00000306051.2	PTGDR	ENSG00000168229	prostaglandin D2 receptor Source HGNC Symbol Acc HGNC 9591
F09	SBH1220344	ENST00000367468.10	PTGS2	ENSG00000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
F10	SBH0197185	ENST00000428220.1	PTH1R	ENSG00000160801	parathyroid hormone 1 receptor Source HGNC Symbol Acc HGNC 9608

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220366	ENST00000235382.7	RGS2	ENSG00000116741	regulator of G protein signaling 2 Source HGNC Symbol Acc HGNC 9998
F12	SBH0515837	ENST00000296271.3	RHO	ENSG00000163914	rhodopsin Source HGNC Symbol Acc HGNC 10012
G01	SBH0181986	ENST00000305352.6	S1PR1	ENSG00000170989	sphingosine-1-phosphate receptor 1 Source HGNC Symbol Acc HGNC 3165
G02	SBH0034997	ENST0000064641.1	S1PR2	ENSG00000267534	sphingosine-1-phosphate receptor 2 Source HGNC Symbol Acc HGNC 3169
G03	SBH0554076	ENST00000375850.3	S1PR3	ENSG00000213694	sphingosine-1-phosphate receptor 3 Source HGNC Symbol Acc HGNC 3167
G04	SBH0541926	ENST00000630739.2	SCTR	ENSG00000080293	secretin receptor Source HGNC Symbol Acc HGNC 10608
G05	SBH1220389	ENST00000223095.4	SERPINE1	ENSG00000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583
G06	SBH1220412	ENST00000644787.1	SOCS1	ENSG00000185338	suppressor of cytokine signaling 1 Source HGNC Symbol Acc HGNC 19383
G07	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G08	SBH0106957	ENST00000541158.6	TSHR	ENSG00000165409	thyroid stimulating hormone receptor Source HGNC Symbol Acc HGNC 12373
G09	SBH0666067	ENST00000262999.4	UCP1	ENSG00000109424	uncoupling protein 1 Source HGNC Symbol Acc HGNC 12517
G10	SBH1220515	ENST00000294728.7	VCAM1	ENSG00000162692	vascular cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 12663
G11	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G12	SBH0393119	ENST00000395957.6	YWHAZ	ENSG00000164924	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein zeta Source HGNC Symbol Acc HGNC 12855
H01	SBH1220543	ENST0000064664.1	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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