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

Human Notch Signaling Pathway

Cat. no. 249950 SBHS-059ZA

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ADAM10	ADAM17	AES	AXIN1	CBL	CCND1	CCNE1	CD44	CDKN1A	CFLAR	CHUK	CTNNB1
B	DLL1	DLL3	DLL4	DTX1	EP300	ERBB2	VEGFD	FOS	FOSL1	FZD2	FZD3	FZD4
C	FZD7	GLI1	GSK3B	HDAC1	HES1	HES5	HEY1	HEY2	HEYL	HOXB4	HR	ID1
D	IFNG	IL17B	IL2RA	JAG1	JAG2	KRT1	LFNG	LMO2	LOR	LRP5	MAML1	MAML2
E	MFNG	MMP7	NCOR2	NCSTN	NEURL1	NFKB1	NFKB2	NOTCH1	NOTCH2	NOTCH2NLA	NOTCH3	NOTCH4
F	NR4A2	NUMB	PAX5	POFUT1	PPARG	PSEN1	PSEN2	PSENEN	PTCRA	RBPJL	RFNG	RUNX1
G	SEL1L	SH2D1A	SHH	SMO	SNW1	STAT6	STIL	SUFU	TLE1	CCN4	WNT11	ZIC2
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	SBH0047492	ENST00000482945.5	ADAM10	ENSG00000137845	ADAM metallopeptidase domain 10 Source HGNC Symbol Acc HGNC 188
A02	SBH1219723	ENST00000310823.8	ADAM17	ENSG00000151694	ADAM metallopeptidase domain 17 Source HGNC Symbol Acc HGNC 195
A03	SBH0216423	ENST00000221561.12	AES	ENSG00000104964	amino-terminal enhancer of split Source HGNC Symbol Acc HGNC 307
A04	SBH1219777	ENST00000262320.8	AXIN1	ENSG00000103126	axin 1 Source HGNC Symbol Acc HGNC 903
A05	SBH0174182	ENST00000634840.1	CBL	ENSG00000110395	Cbl proto-oncogene Source HGNC Symbol Acc HGNC 1541
A06	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A07	SBH1219846	ENST00000262643.8	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
A08	SBH0074994	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
A09	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
A10	SBH1219883	ENST00000462763.5	CFLAR	ENSG00000003402	CASP8 and FADD like apoptosis regulator Source HGNC Symbol Acc HGNC 1876
A11	SBH1219887	ENST00000370397.8	CHUK	ENSG00000213341	conserved helix-loop-helix ubiquitous kinase Source HGNC Symbol Acc HGNC 1974
A12	SBH0588482	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B01	SBH0070314	ENST00000630500.1	DLL1	ENSG00000198719	delta like canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2908
B02	SBH0189720	ENST00000596614.5	DLL3	ENSG00000090932	delta like canonical Notch ligand 3 Source NCBI gene Acc 10683
B03	SBH0236560	ENST00000559440.1	DLL4	ENSG00000128917	delta like canonical Notch ligand 4 Source HGNC Symbol Acc HGNC 2910
B04	SBH0055129	ENST00000553140.1	DTX1	ENSG00000135144	deltex E3 ubiquitin ligase 1 Source HGNC Symbol Acc HGNC 3060
B05	SBH1219977	ENST00000263253.9	EP300	ENSG00000100393	E1A binding protein p300 Source HGNC Symbol Acc HGNC 3373
B06	SBH0056013	ENST00000269571.9	ERBB2	ENSG00000141736	erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430
B07	SBH1220001	ENST00000297904.4	VEGFD	ENSG00000165197	vascular endothelial growth factor D Source HGNC Symbol Acc HGNC 3708
B08	SBH1220004	ENST00000554617.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
B09	SBH1220005	ENST00000532401.1	FOSL1	ENSG00000175592	FOS like 1, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 13718
B10	SBH0574916	ENST00000315323.4	FZD2	ENSG00000180340	frizzled class receptor 2 Source HGNC Symbol Acc HGNC 4040
B11	SBH1220011	ENST00000240093.8	FZD3	ENSG00000104290	frizzled class receptor 3 Source HGNC Symbol Acc HGNC 4041
B12	SBH1220012	ENST00000531380.2	FZD4	ENSG00000174804	frizzled class receptor 4 Source HGNC Symbol Acc HGNC 4042
C01	SBH0357958	ENST00000286201.2	FZD7	ENSG00000155760	frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045
C02	SBH0169622	ENST00000528467.1	GLI1	ENSG00000111087	GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317
C03	SBH0579883	ENST00000316626.5	GSK3B	ENSG00000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
C04	SBH0527067	ENST00000472928.5	HDAC1	ENSG00000116478	histone deacetylase 1 Source HGNC Symbol Acc HGNC 4852
C05	SBH1220054	ENST00000232424.4	HES1	ENSG00000114315	hes family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 5192
C06	SBH1220055	ENST00000378453.4	HES5	ENSG00000197921	hes family bHLH transcription factor 5 Source HGNC Symbol Acc HGNC 19764
C07	SBH1220056	ENST00000518733.1	HEY1	ENSG00000164683	hes related family bHLH transcription factor with YRPW motif 1 Source HGNC Symbol Acc HGNC 4880
C08	SBH0153374	ENST00000368365.5	HEY2	ENSG00000135547	hes related family bHLH transcription factor with YRPW motif 2 Source HGNC Symbol Acc HGNC 4881
C09	SBH1220057	ENST00000372852.4	HEYL	ENSG00000163909	hes related family bHLH transcription factor with YRPW motif-like Source HGNC Symbol Acc HGNC 4882
C10	SBH0197154	ENST00000332503.6	HOXB4	ENSG00000182742	homeobox B4 Source HGNC Symbol Acc HGNC 5115
		ENST00000517		ENSG00000	HR, lysine demethylase and nuclear receptor corepressor Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0644692	699.2	HR	168453	Acc HGNC 5172
C12	SBH1220077	ENST00000376112.4	ID1	ENSG00000125968	inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360
D01	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
D02	SBH0542310	ENST00000505432.1	IL17B	ENSG00000127743	interleukin 17B Source HGNC Symbol Acc HGNC 5982
D03	SBH0567688	ENST00000447847.1	IL2RA	ENSG00000134460	interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008
D04	SBH0407654	ENST00000254958.10	JAG1	ENSG00000101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
D05	SBH0627052	ENST00000546616.1	JAG2	ENSG00000184916	jagged 2 Source HGNC Symbol Acc HGNC 6189
D06	SBH0079137	ENST00000252244.3	KRT1	ENSG00000167768	keratin 1 Source HGNC Symbol Acc HGNC 6412
D07	SBH1220170	ENST00000359574.7	LFNG	ENSG00000106003	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 6560
D08	SBH0608405	ENST00000411482.1	LMO2	ENSG00000135363	LIM domain only 2 Source HGNC Symbol Acc HGNC 6642
D09	SBH0166249	ENST00000368742.4	LOR	ENSG00000203782	loricrin Source HGNC Symbol Acc HGNC 6663
D10	SBH1220177	ENST00000294304.12	LRP5	ENSG00000162337	LDL receptor related protein 5 Source HGNC Symbol Acc HGNC 6697
D11	SBH0210141	ENST00000507385.1	MAML1	ENSG00000161021	mastermind like transcriptional coactivator 1 Source HGNC Symbol Acc HGNC 13632
D12	SBH0397431	ENST00000524717.6	MAML2	ENSG00000184384	mastermind like transcriptional coactivator 2 Source HGNC Symbol Acc HGNC 16259
E01	SBH0022393	ENST00000436341.5	MFNG	ENSG00000100060	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 7038
E02	SBH1220224	ENST00000260227.5	MMP7	ENSG00000137673	matrix metallopeptidase 7 Source HGNC Symbol Acc HGNC 7174
E03	SBH0634597	ENST00000356219.7	NCOR2	ENSG00000196498	nuclear receptor corepressor 2 Source HGNC Symbol Acc HGNC 7673
E04	SBH0547598	ENST00000437169.5	NCSTN	ENSG00000162736	nicastrin Source HGNC Symbol Acc HGNC 17091
E05	SBH0588994	ENST00000437579.1	NEURL1	ENSG00000107954	neuralized E3 ubiquitin protein ligase 1 Source HGNC Symbol Acc HGNC 7761
E06	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E07	SBH1220265	ENST00000652277.1	NFKB2	ENSG00000077150	nuclear factor kappa B subunit 2 Source HGNC Symbol Acc HGNC 7795
E08	SBH0615258	ENST00000277541.7	NOTCH1	ENSG00000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
E09	SBH0378554	ENST00000256646.7	NOTCH2	ENSG00000134250	notch 2 Source HGNC Symbol Acc HGNC 7882
E10	SBH0345615	ENST00000579793.6	NOTCH2NLA	ENSG00000264343	notch 2 N-terminal like A Source HGNC Symbol Acc HGNC 31862
E11	SBH0513117	ENST00000597756.1	NOTCH3	ENSG00000074181	notch 3 Source HGNC Symbol Acc HGNC 7883
E12	SBH1220273	ENST00000375023.3	NOTCH4	ENSG00000204301	notch 4 Source HGNC Symbol Acc HGNC 7884
F01	SBH0444745	ENST00000339562.9	NR4A2	ENSG00000153234	nuclear receptor subfamily 4 group A member 2 Source HGNC Symbol Acc HGNC 7981
F02	SBH0378382	ENST00000554546.5	NUMB	ENSG00000133961	NUMB, endocytic adaptor protein Source HGNC Symbol Acc HGNC 8060
F03	SBH0623717	ENST00000520281.5	PAX5	ENSG00000196092	paired box 5 Source HGNC Symbol Acc HGNC 8619
F04	SBH0091739	ENST00000486717.5	POFUT1	ENSG00000101346	protein O-fucosyltransferase 1 Source HGNC Symbol Acc HGNC 14988
F05	SBH0521265	ENST00000652522.1	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F06	SBH0137526	ENST00000557511.5	PSEN1	ENSG00000080815	presenilin 1 Source HGNC Symbol Acc HGNC 9508
F07	SBH0022194	ENST00000521431.1	PSEN2	ENSG00000143801	presenilin 2 Source HGNC Symbol Acc HGNC 9509
F08	SBH0591590	ENST00000222266.2	PSENEN	ENSG00000205155	presenilin enhancer, gamma-secretase subunit Source HGNC Symbol Acc HGNC 30100
F09	SBH0372693	ENST00000446507.5	PTCRA	ENSG00000171611	pre T cell antigen receptor alpha Source HGNC Symbol Acc HGNC 21290
F10	SBH0096114	ENST00000372741.7	RBPJL	ENSG00000124232	recombination signal binding protein for immunoglobulin kappa J region like Source HGNC Symbol Acc HGNC 13761

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0624152	ENST00000580928.1	RFNG	ENSG00000169733	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase Source HGNC Symbol Acc HGNC 9974
F12	SBH0384721	ENST00000437180.5	RUNX1	ENSG00000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
G01	SBH0304363	ENST00000557372.1	SEL1L	ENSG00000071537	SEL1L, ERAD E3 ligase adaptor subunit Source HGNC Symbol Acc HGNC 10717
G02	SBH0237470	ENST00000371139.8	SH2D1A	ENSG00000183918	SH2 domain containing 1A Source HGNC Symbol Acc HGNC 10820
G03	SBH0041689	ENST00000430104.5	SHH	ENSG00000164690	sonic hedgehog signaling molecule Source HGNC Symbol Acc HGNC 10848
G04	SBH0217804	ENST00000462420.2	SMO	ENSG00000128602	smoothened, frizzled class receptor Source HGNC Symbol Acc HGNC 11119
G05	SBH0309560	ENST00000556428.5	SNW1	ENSG00000100603	SNW domain containing 1 Source HGNC Symbol Acc HGNC 16696
G06	SBH1220424	ENST00000300134.8	STAT6	ENSG00000166888	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368
G07	SBH0357015	ENST00000436811.1	STIL	ENSG00000123473	STIL, centriolar assembly protein Source HGNC Symbol Acc HGNC 10879
G08	SBH0545396	ENST00000369899.6	SUFU	ENSG00000107882	SUFU negative regulator of hedgehog signaling Source HGNC Symbol Acc HGNC 16466
G09	SBH1220459	ENST00000376499.8	TLE1	ENSG00000196781	TLE family member 1, transcriptional corepressor Source HGNC Symbol Acc HGNC 11837
G10	SBH1220526	ENST00000220856.6	CCN4	ENSG00000104415	cellular communication network factor 4 Source HGNC Symbol Acc HGNC 12769
G11	SBH1220528	ENST00000322563.8	WNT11	ENSG00000085741	Wnt family member 11 Source HGNC Symbol Acc HGNC 12776
G12	SBH0339647	ENST00000477213.1	ZIC2	ENSG00000043355	Zic family member 2 Source HGNC Symbol Acc HGNC 12873
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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