

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

Human Cancer Stem Cells

Cat. no. 249950 SBHS-176ZR

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	ABC5	ABC2	ALCAM	ALDH1A1	ATM	ATXN1	AXL	BMI1	BMP7	CD24	CD34	CD38
B	CD44	CHEK1	DACH1	DDR1	DKK1	DLL1	DLL4	DNMT1	EGF	ENG	EPCAM	ERBB2
C	ETFA	FGFR2	FLOT2	FOXA2	FOXP1	FZD7	GATA3	GSK3B	HDAC1	ID1	IKBKB	CXCL8
D	ITGA2	ITGA4	ITGA6	ITGB1	JAG1	JAK2	KIT	KITLG	KLF17	KLF4	LATS1	LIN28A
E	LIN28B	MAML1	MERTK	MS4A1	MUC1	MYC	MYCN	NANOG	NFKB1	NOS2	NOTCH1	NOTCH2
F	PECAM1	PLAT	PLAUR	POU5F1	PROM1	PTCH1	PTPRC	SAV1	SIRT1	SMO	SNAI1	SOX2
G	STAT3	TAZ	TGFBR1	THY1	TWIST1	TWIST2	WEE1	WNT1	WWC1	YAP1	ZEB1	ZEB2
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	SBH0347703	ENST00000477094.5	ABCB5	ENSG00000004846	ATP binding cassette subfamily B member 5 Source HGNC Symbol Acc HGNC 46
A02	SBH0422197	ENST00000503830.2	ABCG2	ENSG000000118777	ATP binding cassette subfamily G member 2 (Junior blood group) Source HGNC Symbol Acc HGNC 74
A03	SBH0246648	ENST00000481337.5	ALCAM	ENSG000000170017	activated leukocyte cell adhesion molecule Source HGNC Symbol Acc HGNC 400
A04	SBH0340208	ENST00000482210.5	ALDH1A1	ENSG000000165092	aldehyde dehydrogenase 1 family member A1 Source HGNC Symbol Acc HGNC 402
A05	SBH1219763	ENST00000452508.6	ATM	ENSG000000149311	ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795
A06	SBH0014703	ENST00000646259.1	ATXN1	ENSG000000124788	ataxin 1 Source HGNC Symbol Acc HGNC 10548
A07	SBH0534329	ENST00000301178.9	AXL	ENSG000000167601	AXL receptor tyrosine kinase Source HGNC Symbol Acc HGNC 905
A08	SBH1219800	ENST00000376663.8	BMI1	ENSG000000168283	BMI1 proto-oncogene, polycomb ring finger Source HGNC Symbol Acc HGNC 1066
A09	SBH1219806	ENST00000450594.6	BMP7	ENSG000000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
A10	SBH0230547	ENST00000619133.4	CD24	ENSG000000272398	CD24 molecule Source HGNC Symbol Acc HGNC 1645
A11	SBH0234693	ENST00000356522.4	CD34	ENSG000000174059	CD34 molecule Source HGNC Symbol Acc HGNC 1662
A12	SBH0584578	ENST00000502843.5	CD38	ENSG000000004468	CD38 molecule Source HGNC Symbol Acc HGNC 1667
B01	SBH0074994	ENST00000428726.7	CD44	ENSG000000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B02	SBH1219885	ENST00000534070.5	CHEK1	ENSG000000149554	checkpoint kinase 1 Source HGNC Symbol Acc HGNC 1925
B03	SBH0606111	ENST00000620444.4	DACH1	ENSG000000276644	dachshund family transcription factor 1 Source HGNC Symbol Acc HGNC 2663
B04	SBH0348221	ENST00000376567.6	DDR1	ENSG000000204580	discoidin domain receptor tyrosine kinase 1 Source HGNC Symbol Acc HGNC 2730
B05	SBH0194476	ENST00000373970.4	DKK1	ENSG000000107984	dickkopf WNT signaling pathway inhibitor 1 Source HGNC Symbol Acc HGNC 2891
B06	SBH0070314	ENST00000630500.1	DLL1	ENSG000000198719	delta like canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2908
B07	SBH0236560	ENST00000559440.1	DLL4	ENSG000000128917	delta like canonical Notch ligand 4 Source HGNC Symbol Acc HGNC 2910
B08	SBH0209142	ENST00000340748.8	DNMT1	ENSG000000130816	DNA methyltransferase 1 Source HGNC Symbol Acc HGNC 2976
B09	SBH0321686	ENST00000265171.9	EGF	ENSG000000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
B10	SBH1219975	ENST00000480266.5	ENG	ENSG000000106991	endoglin Source HGNC Symbol Acc HGNC 3349
B11	SBH0075185	ENST00000263735.8	EPCAM	ENSG000000119888	epithelial cell adhesion molecule Source HGNC Symbol Acc HGNC 11529
B12	SBH0056013	ENST00000269571.9	ERBB2	ENSG000000141736	erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430
C01	SBH0255606	ENST00000560345.5	ETFA	ENSG000000140374	electron transfer flavoprotein subunit alpha Source HGNC Symbol Acc HGNC 3481
C02	SBH0451647	ENST00000369059.5	FGFR2	ENSG000000066468	fibroblast growth factor receptor 2 Source HGNC Symbol Acc HGNC 3689
C03	SBH0533888	ENST00000586827.6	FLOT2	ENSG000000132589	flotillin 2 Source HGNC Symbol Acc HGNC 3758
C04	SBH0328492	ENST00000419308.6	FOXA2	ENSG000000125798	forkhead box A2 Source HGNC Symbol Acc HGNC 5022
C05	SBH0216579	ENST00000649631.1	FOXP1	ENSG000000114861	forkhead box P1 Source HGNC Symbol Acc HGNC 3823
C06	SBH0357958	ENST00000286201.2	FZD7	ENSG000000155760	frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045
C07	SBH0349339	ENST00000346208.4	GATA3	ENSG000000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
C08	SBH0579883	ENST00000316626.5	GSK3B	ENSG000000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
C09	SBH0527067	ENST00000472928.5	HDAC1	ENSG000000116478	histone deacetylase 1 Source HGNC Symbol Acc HGNC 4852
C10	SBH1220077	ENST00000376112.4	ID1	ENSG000000125968	inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360
		ENST00000520		ENSG000000	inhibitor of nuclear factor kappa B kinase subunit beta Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0241248	810.6	IKBKB	104365	Acc HGNC 5960
C12	SBH1219932	ENST00000401931.1	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
D01	SBH1220130	ENST00000296585.10	ITGA2	ENSG00000164171	integrin subunit alpha 2 Source HGNC Symbol Acc HGNC 6137
D02	SBH1220132	ENST00000397033.7	ITGA4	ENSG00000115232	integrin subunit alpha 4 Source HGNC Symbol Acc HGNC 6140
D03	SBH0096168	ENST00000264107.11	ITGA6	ENSG00000091409	integrin subunit alpha 6 Source HGNC Symbol Acc HGNC 6142
D04	SBH1220136	ENST00000302278.8	ITGB1	ENSG00000150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
D05	SBH0407654	ENST00000254958.10	JAG1	ENSG00000101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
D06	SBH0334185	ENST00000381652.3	JAK2	ENSG00000096968	Janus kinase 2 Source HGNC Symbol Acc HGNC 6192
D07	SBH0452028	ENST00000288135.5	KIT	ENSG00000157404	KIT proto-oncogene receptor tyrosine kinase Source HGNC Symbol Acc HGNC 6342
D08	SBH0076738	ENST00000644744.1	KITLG	ENSG00000049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
D09	SBH0140023	ENST00000476802.1	KLF17	ENSG00000171872	Kruppel like factor 17 Source HGNC Symbol Acc HGNC 18830
D10	SBH0614186	ENST00000497048.5	KLF4	ENSG00000136826	Kruppel like factor 4 Source HGNC Symbol Acc HGNC 6348
D11	SBH0046904	ENST00000253339.9	LATS1	ENSG00000131023	large tumor suppressor kinase 1 Source HGNC Symbol Acc HGNC 6514
D12	SBH0644769	ENST00000254231.4	LIN28A	ENSG00000131914	lin-28 homolog A Source HGNC Symbol Acc HGNC 15986
E01	SBH0480481	ENST00000635857.1	LIN28B	ENSG00000187772	lin-28 homolog B Source HGNC Symbol Acc HGNC 32207
E02	SBH0210141	ENST00000507385.1	MAML1	ENSG00000161021	mastermind like transcriptional coactivator 1 Source HGNC Symbol Acc HGNC 13632
E03	SBH0627112	ENST00000439966.5	MERTK	ENSG00000153208	MER proto-oncogene, tyrosine kinase Source HGNC Symbol Acc HGNC 7027
E04	SBH0171801	ENST00000532418.1	MS4A1	ENSG00000156738	membrane spanning 4-domains A1 Source HGNC Symbol Acc HGNC 7315
E05	SBH0571256	ENST00000438413.5	MUC1	ENSG00000185499	mucin 1, cell surface associated Source HGNC Symbol Acc HGNC 7508
E06	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E07	SBH0020367	ENST00000281043.4	MYCN	ENSG00000134323	MYCN proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7559
E08	SBH1225384	ENST00000229307.9	NANOG	ENSG00000111704	Nanog homeobox Source HGNC Symbol Acc HGNC 20857
E09	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E10	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
E11	SBH0615258	ENST00000277541.7	NOTCH1	ENSG00000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
E12	SBH0378554	ENST00000256646.7	NOTCH2	ENSG00000134250	notch 2 Source HGNC Symbol Acc HGNC 7882
F01	SBH1220299	ENST00000563924.6	PECAM1	ENSG00000261371	platelet and endothelial cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 8823
F02	SBH0432338	ENST00000220809.8	PLAT	ENSG00000104368	plasminogen activator, tissue type Source HGNC Symbol Acc HGNC 9051
F03	SBH0270684	ENST00000593939.5	PLAUR	ENSG00000011422	plasminogen activator, urokinase receptor Source HGNC Symbol Acc HGNC 9053
F04	SBH1225387	ENST00000513407.1	POU5F1	ENSG00000204531	POU class 5 homeobox 1 Source HGNC Symbol Acc HGNC 9221
F05	SBH0498976	ENST00000510224.5	PROM1	ENSG00000007062	prominin 1 Source HGNC Symbol Acc HGNC 9454
F06	SBH0360047	ENST00000331920.10	PTCH1	ENSG00000185920	patched 1 Source HGNC Symbol Acc HGNC 9585
F07	SBH0081266	ENST00000491302.1	PTPRC	ENSG00000081237	protein tyrosine phosphatase, receptor type C Source HGNC Symbol Acc HGNC 9666
F08	SBH0654155	ENST00000553731.1	SAV1	ENSG00000151748	salvador family WW domain containing protein 1 Source HGNC Symbol Acc HGNC 17795
F09	SBH1220398	ENST00000212015.11	SIRT1	ENSG00000096717	sirtuin 1 Source HGNC Symbol Acc HGNC 14929
F10	SBH0217804	ENST00000462420.2	SMO	ENSG00000128602	smoothened, frizzled class receptor Source HGNC Symbol Acc HGNC 11119

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220409	ENST00000244050.3	SNAI1	ENSG00000124216	snail family transcriptional repressor 1 Source HGNC Symbol Acc HGNC 11128
F12	SBH0499815	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
G01	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G02	SBH0087006	ENST00000617701.5	TAZ	ENSG00000102125	tafazzin Source HGNC Symbol Acc HGNC 11577
G03	SBH1220446	ENST00000374994.9	TGFBR1	ENSG00000106799	transforming growth factor beta receptor 1 Source HGNC Symbol Acc HGNC 11772
G04	SBH0336000	ENST00000527590.5	THY1	ENSG00000154096	Thy-1 cell surface antigen Source HGNC Symbol Acc HGNC 11801
G05	SBH1220496	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G06	SBH0377429	ENST00000612363.2	TWIST2	ENSG00000233608	twist family bHLH transcription factor 2 Source HGNC Symbol Acc HGNC 20670
G07	SBH1220523	ENST00000450114.7	WEE1	ENSG00000166483	WEE1 G2 checkpoint kinase Source HGNC Symbol Acc HGNC 12761
G08	SBH0160221	ENST00000293549.3	WNT1	ENSG00000125084	Wnt family member 1 Source HGNC Symbol Acc HGNC 12774
G09	SBH0066579	ENST00000524093.5	WWC1	ENSG00000113645	WW and C2 domain containing 1 Source HGNC Symbol Acc HGNC 29435
G10	SBH0505597	ENST00000529029.1	YAP1	ENSG00000137693	Yes associated protein 1 Source HGNC Symbol Acc HGNC 16262
G11	SBH0357652	ENST00000320985.14	ZEB1	ENSG00000148516	zinc finger E-box binding homeobox 1 Source HGNC Symbol Acc HGNC 11642
G12	SBH1220542	ENST00000558170.6	ZEB2	ENSG00000169554	zinc finger E-box binding homeobox 2 Source HGNC Symbol Acc HGNC 14881
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.