

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

Human Breast Cancer

Cat. no. 249950 SBHS-131ZR

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	ABCB1	ABCG2	ADAM23	AKT1	APC	AR	ATM	BAD	BCL2	BIRC5	BRCA1	BRCA2
B	CCNA1	CCND1	CCND2	CCNE1	CDH1	CDH13	CDK2	CDKN1A	CDKN1C	CDKN2A	CSF1	CST6
C	CTNNB1	CTSD	EGF	EGFR	ERBB2	ESR1	ESR2	FOXA1	GATA3	GLI1	GRB7	GSTP1
D	HIC1	ID1	IGF1	IGF1R	IGFBP3	IL6	JUN	KRT18	KRT19	KRT5	KRT8	MAPK1
E	MAPK3	MAPK8	MGMT	MKI67	MLH1	MMP2	MMP9	MUC1	MYC	NME1	NOTCH1	NR3C1
F	PGR	PLAU	PRDM2	PTEN	PTGS2	PYCARD	RARB	RASSF1	RB1	SERPINE1	SFN	SFRP1
G	SLC39A6	SLIT2	SNAI2	SRC	TFF3	TGFB1	THBS1	TP53	TP73	TWIST1	VEGFA	XBP1
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	SBH0346091	ENST00000622132.4	ABCB1	ENSG00000085563	ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40
A02	SBH0422197	ENST00000503830.2	ABCG2	ENSG00000118777	ATP binding cassette subfamily G member 2 (Junior blood group) Source HGNC Symbol Acc HGNC 74
A03	SBH0558268	ENST00000444281.1	ADAM23	ENSG00000114948	ADAM metalloproteinase domain 23 Source HGNC Symbol Acc HGNC 202
A04	SBH0095396	ENST0000055528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A05	SBH1219746	ENST00000512211.6	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A06	SBH0056376	ENST00000374690.8	AR	ENSG00000169083	androgen receptor Source HGNC Symbol Acc HGNC 644
A07	SBH1219763	ENST00000452508.6	ATM	ENSG00000149311	ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795
A08	SBH0034205	ENST00000394532.7	BAD	ENSG00000002330	BCL2 associated agonist of cell death Source HGNC Symbol Acc HGNC 936
A09	SBH1219786	ENST00000398117.1	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A10	SBH1219797	ENST00000301633.8	BIRC5	ENSG00000089685	baculoviral IAP repeat containing 5 Source HGNC Symbol Acc HGNC 593
A11	SBH1219814	ENST00000357654.8	BRCA1	ENSG00000012048	BRCA1, DNA repair associated Source HGNC Symbol Acc HGNC 1100
A12	SBH1219815	ENST00000380152.7	BRCA2	ENSG00000139618	BRCA2, DNA repair associated Source HGNC Symbol Acc HGNC 1101
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	SBH1219845	ENST00000261254.8	CCND2	ENSG00000118971	cyclin D2 Source HGNC Symbol Acc HGNC 1583
B04	SBH1219846	ENST00000262643.8	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
B05	SBH1219869	ENST00000261769.10	CDH1	ENSG00000039068	cadherin 1 Source HGNC Symbol Acc HGNC 1748
B06	SBH0542083	ENST00000268613.14	CDH13	ENSG00000140945	cadherin 13 Source HGNC Symbol Acc HGNC 1753
B07	SBH1219872	ENST00000553376.5	CDK2	ENSG00000123374	cyclin dependent kinase 2 Source HGNC Symbol Acc HGNC 1771
B08	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B09	SBH0517353	ENST00000440480.7	CDKN1C	ENSG00000129757	cyclin dependent kinase inhibitor 1C Source HGNC Symbol Acc HGNC 1786
B10	SBH0349548	ENST00000304494.9	CDKN2A	ENSG00000147889	cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787
B11	SBH1219913	ENST00000420111.6	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
B12	SBH0183860	ENST00000312134.3	CST6	ENSG00000175315	cystatin E/M Source HGNC Symbol Acc HGNC 2478
C01	SBH0588482	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
C02	SBH1219922	ENST00000637815.1	CTSD	ENSG00000117984	cathepsin D Source HGNC Symbol Acc HGNC 2529
C03	SBH0321686	ENST00000265171.9	EGF	ENSG00000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
C04	SBH1219970	ENST00000454757.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
C05	SBH0056013	ENST00000269571.9	ERBB2	ENSG00000141736	erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430
C06	SBH0125383	ENST00000206249.7	ESR1	ENSG00000091831	estrogen receptor 1 Source HGNC Symbol Acc HGNC 3467
C07	SBH0203246	ENST00000554572.5	ESR2	ENSG00000140009	estrogen receptor 2 Source HGNC Symbol Acc HGNC 3468
C08	SBH0233971	ENST00000545425.2	FOXA1	ENSG00000129514	forkhead box A1 Source HGNC Symbol Acc HGNC 5021
C09	SBH0349339	ENST00000346208.4	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
C10	SBH0169622	ENST00000528467.1	GLI1	ENSG00000111087	GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317
		ENST00000394		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0626314	209.6	GRB7	141738	growth factor receptor bound protein 7 Source HGNC Symbol Acc HGNC 4567
C12	SBH1220043	ENST0000064244.1	GSTP1	ENSG00000084207	glutathione S-transferase pi 1 Source HGNC Symbol Acc HGNC 4638
D01	SBH0170404	ENST00000571875.2	HIC1	ENSG000000177374	HIC ZBTB transcriptional repressor 1 Source HGNC Symbol Acc HGNC 4909
D02	SBH1220077	ENST00000376112.4	ID1	ENSG000000125968	inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360
D03	SBH1220091	ENST00000337514.10	IGF1	ENSG000000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D04	SBH0201042	ENST00000650285.1	IGF1R	ENSG000000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
D05	SBH1220092	ENST00000275521.10	IGFBP3	ENSG000000146674	insulin like growth factor binding protein 3 Source HGNC Symbol Acc HGNC 5472
D06	SBH1220111	ENST00000401630.7	IL6	ENSG000000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D07	SBH0613340	ENST00000371222.3	JUN	ENSG000000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D08	SBH0247700	ENST00000550600.5	KRT18	ENSG000000111057	keratin 18 Source HGNC Symbol Acc HGNC 6430
D09	SBH1220159	ENST00000361566.7	KRT19	ENSG000000171345	keratin 19 Source HGNC Symbol Acc HGNC 6436
D10	SBH0505202	ENST00000549511.5	KRT5	ENSG000000186081	keratin 5 Source HGNC Symbol Acc HGNC 6442
D11	SBH0594835	ENST00000547176.3	KRT8	ENSG000000170421	keratin 8 Source HGNC Symbol Acc HGNC 6446
D12	SBH1220192	ENST00000544786.1	MAPK1	ENSG000000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
E01	SBH1220194	ENST00000478356.5	MAPK3	ENSG000000102882	mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877
E02	SBH0294318	ENST00000395611.7	MAPK8	ENSG000000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
E03	SBH0587302	ENST00000306010.8	MGMT	ENSG000000170430	O-6-methylguanine-DNA methyltransferase Source HGNC Symbol Acc HGNC 7059
E04	SBH1220213	ENST00000368654.8	MKI67	ENSG000000148773	marker of proliferation Ki-67 Source HGNC Symbol Acc HGNC 7107
E05	SBH0236577	ENST00000231790.6	MLH1	ENSG000000076242	mutL homolog 1 Source HGNC Symbol Acc HGNC 7127
E06	SBH1220222	ENST00000570308.5	MMP2	ENSG000000087245	matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166
E07	SBH0471278	ENST00000372330.3	MMP9	ENSG000000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
E08	SBH0571256	ENST00000438413.5	MUC1	ENSG000000185499	mucin 1, cell surface associated Source HGNC Symbol Acc HGNC 7508
E09	SBH0426145	ENST00000524013.1	MYC	ENSG000000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E10	SBH0310094	ENST00000512768.1	NME1	ENSG000000239672	NME/NM23 nucleoside diphosphate kinase 1 Source HGNC Symbol Acc HGNC 7849
E11	SBH0615258	ENST00000277541.7	NOTCH1	ENSG000000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
E12	SBH1220280	ENST00000652686.1	NR3C1	ENSG000000113580	nuclear receptor subfamily 3 group C member 1 Source HGNC Symbol Acc HGNC 7978
F01	SBH0508179	ENST00000534780.5	PGR	ENSG000000082175	progesterone receptor Source HGNC Symbol Acc HGNC 8910
F02	SBH1220315	ENST00000446342.5	PLAU	ENSG000000122861	plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052
F03	SBH0339523	ENST00000491815.1	PRDM2	ENSG000000116731	PR/SET domain 2 Source HGNC Symbol Acc HGNC 9347
F04	SBH1225378	ENST00000371953.8	PTEN	ENSG000000171862	phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588
F05	SBH1220344	ENST00000367468.10	PTGS2	ENSG000000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
F06	SBH1220348	ENST00000247470.10	PYCARD	ENSG000000103490	PYD and CARD domain containing Source HGNC Symbol Acc HGNC 16608
F07	SBH0264791	ENST00000458646.1	RARB	ENSG000000077092	retinoic acid receptor beta Source HGNC Symbol Acc HGNC 9865
F08	SBH0462049	ENST00000359365.8	RASSF1	ENSG000000068028	Ras association domain family member 1 Source HGNC Symbol Acc HGNC 9882
F09	SBH0093533	ENST00000267163.5	RB1	ENSG000000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
F10	SBH1220389	ENST00000223095.4	SERPINE1	ENSG000000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0603665	ENST00000339276.6	SFN	ENSG00000175793	stratifin Source HGNC Symbol Acc HGNC 10773
F12	SBH1220394	ENST00000220772.8	SFRP1	ENSG00000104332	secreted frizzled related protein 1 Source HGNC Symbol Acc HGNC 10776
G01	SBH0662313	ENST00000586829.1	SLC39A6	ENSG00000141424	solute carrier family 39 member 6 Source HGNC Symbol Acc HGNC 18607
G02	SBH0363286	ENST00000504154.6	SLIT2	ENSG00000145147	slit guidance ligand 2 Source HGNC Symbol Acc HGNC 11086
G03	SBH1220410	ENST00000642303.1	SNAI2	ENSG00000019549	snail family transcriptional repressor 2 Source HGNC Symbol Acc HGNC 11094
G04	SBH0514958	ENST00000489153.1	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
G05	SBH0361182	ENST00000398431.2	TFF3	ENSG00000160180	trefoil factor 3 Source HGNC Symbol Acc HGNC 11757
G06	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G07	SBH1220450	ENST00000260356.5	THBS1	ENSG00000137801	thrombospondin 1 Source HGNC Symbol Acc HGNC 11785
G08	SBH1220486	ENST00000445888.6	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G09	SBH1220488	ENST00000346387.8	TP73	ENSG00000078900	tumor protein p73 Source HGNC Symbol Acc HGNC 12003
G10	SBH1220496	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G11	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G12	SBH0036122	ENST00000403532.7	XBP1	ENSG00000100219	X-box binding protein 1 Source HGNC Symbol Acc HGNC 12801
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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