

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

Human Telomeres & Telomerase

Cat. no. 249950 SBHS-010ZA

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	ABL1	ACD	AKT1	ATM	ATP5F1C	BCL2	BLM	CDK2	CHEK1	CHEK2	DCLRE1B	DCLRE1C
B	DKC1	EGF	EME1	ERCC1	ERCC4	GAR1	HAT1	HNRNP2B1	HNRNPD	HSP90AA1	HSPA1L	IGF1
C	KRAS	KRIT1	MEN1	MRE11	MSH2	MSH3	MUS81	MYC	NBN	NCL	NHP2	NOP10
D	STN1	PARP1	PAX8	PIF1	PINK1	PLK1	POT1	PPARG	PPP2R1A	PPP2R1B	PRKCA	PRKCB
E	PRKDC	PTGES3	PURA	RAD17	RAD50	RAP1A	RAPGEF1	RASSF1	RB1	RFC1	RIF1	RTEL1
F	SART1	SIRT2	SIRT6	SLX4	SMAD3	SMG6	SP1	SSB	SUN1	TEP1	TERF1	TERF2
G	TERF2IP	TERT	TGFB1	TINF2	TNKS	TNKS2	TP53	TP53BP1	TPP1	WRAP53	XRCC5	XRCC6
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	SBH1219716	ENST00000372348.6	ABL1	ENSG00000097007	ABL proto-oncogene 1, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 76
A02	SBH0096408	ENST00000620761.6	ACD	ENSG00000102977	ACD, shelterin complex subunit and telomerase recruitment factor Source HGNC Symbol Acc HGNC 25070
A03	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A04	SBH1219763	ENST00000452508.6	ATM	ENSG00000149311	ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795
A05	SBH0249503	ENST00000335698.4	ATP5F1C	ENSG00000165629	ATP synthase F1 subunit gamma Source HGNC Symbol Acc HGNC 833
A06	SBH1219786	ENST00000398117.1	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A07	SBH1219799	ENST00000355112.8	BLM	ENSG00000197299	BLM RecQ like helicase Source HGNC Symbol Acc HGNC 1058
A08	SBH1219872	ENST00000553376.5	CDK2	ENSG00000123374	cyclin dependent kinase 2 Source HGNC Symbol Acc HGNC 1771
A09	SBH1219885	ENST00000534070.5	CHEK1	ENSG00000149554	checkpoint kinase 1 Source HGNC Symbol Acc HGNC 1925
A10	SBH0661120	ENST00000416671.5	CHEK2	ENSG00000183765	checkpoint kinase 2 Source HGNC Symbol Acc HGNC 16627
A11	SBH0639189	ENST00000369563.3	DCLRE1B	ENSG00000118655	DNA cross-link repair 1B Source HGNC Symbol Acc HGNC 17641
A12	SBH0219270	ENST00000489161.1	DCLRE1C	ENSG00000152457	DNA cross-link repair 1C Source HGNC Symbol Acc HGNC 17642
B01	SBH1219951	ENST00000369550.10	DKC1	ENSG00000130826	dyskerin pseudouridine synthase 1 Source HGNC Symbol Acc HGNC 2890
B02	SBH0321686	ENST00000265171.9	EGF	ENSG00000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
B03	SBH0024545	ENST00000510246.1	EME1	ENSG00000154920	essential meiotic structure-specific endonuclease 1 Source HGNC Symbol Acc HGNC 24965
B04	SBH1219982	ENST00000300853.7	ERCC1	ENSG00000102061	ERCC excision repair 1, endonuclease non-catalytic subunit Source HGNC Symbol Acc HGNC 3433
B05	SBH0206950	ENST00000574194.1	ERCC4	ENSG00000175595	ERCC excision repair 4, endonuclease catalytic subunit Source HGNC Symbol Acc HGNC 3436
B06	SBH0226346	ENST00000503671.2	GAR1	ENSG00000109534	GAR1 ribonucleoprotein Source HGNC Symbol Acc HGNC 14264
B07	SBH1220047	ENST00000264108.5	HAT1	ENSG00000128708	histone acetyltransferase 1 Source HGNC Symbol Acc HGNC 4821
B08	SBH0271357	ENST00000360787.8	HNRNPA2B1	ENSG00000122566	heterogeneous nuclear ribonucleoprotein A2/B1 Source HGNC Symbol Acc HGNC 5033
B09	SBH0302681	ENST00000503822.1	HNRNPD	ENSG00000138668	heterogeneous nuclear ribonucleoprotein D Source HGNC Symbol Acc HGNC 5036
B10	SBH0323386	ENST00000334701.11	HSP90AA1	ENSG00000080824	heat shock protein 90 alpha family class A member 1 Source HGNC Symbol Acc HGNC 5253
B11	SBH0418033	ENST00000375654.5	HSPA1L	ENSG00000204390	heat shock protein family A (Hsp70) member 1 like Source HGNC Symbol Acc HGNC 5234
B12	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
C01	SBH0300474	ENST00000556131.1	KRAS	ENSG00000133703	KRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 6407
C02	SBH0557737	ENST00000394507.5	KRIT1	ENSG00000001631	KRIT1, ankyrin repeat containing Source HGNC Symbol Acc HGNC 1573
C03	SBH0088177	ENST00000377313.5	MEN1	ENSG00000133895	menin 1 Source HGNC Symbol Acc HGNC 7010
C04	SBH0627154	ENST00000323977.7	MRE11	ENSG00000020922	MRE11 homolog, double strand break repair nuclease Source HGNC Symbol Acc HGNC 7230
C05	SBH1220228	ENST00000233146.6	MSH2	ENSG00000095002	mutS homolog 2 Source HGNC Symbol Acc HGNC 7325
C06	SBH1220229	ENST00000265081.7	MSH3	ENSG00000113318	mutS homolog 3 Source HGNC Symbol Acc HGNC 7326
C07	SBH0149092	ENST00000533035.5	MUS81	ENSG00000172732	MUS81 structure-specific endonuclease subunit Source HGNC Symbol Acc HGNC 29814
C08	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
C09	SBH0220644	ENST00000265433.7	NBN	ENSG00000104320	nibrin Source HGNC Symbol Acc HGNC 7652
C10	SBH0569167	ENST00000322723.9	NCL	ENSG00000115053	nucleolin Source HGNC Symbol Acc HGNC 7667
		ENST00000274		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0263016	606.7	NHP2	145912	NHP2 ribonucleoprotein Source HGNC Symbol Acc HGNC 14377
C12	SBH0393319	ENST00000328848.5	NOP10	ENSG00000182117	NOP10 ribonucleoprotein Source HGNC Symbol Acc HGNC 14378
D01	SBH0522196	ENST00000224950.8	STN1	ENSG00000107960	STN1, CST complex subunit Source HGNC Symbol Acc HGNC 26200
D02	SBH1220289	ENST00000366794.10	PARP1	ENSG00000143799	poly(ADP-ribose) polymerase 1 Source HGNC Symbol Acc HGNC 270
D03	SBH0425438	ENST00000429538.8	PAX8	ENSG00000125618	paired box 8 Source HGNC Symbol Acc HGNC 8622
D04	SBH0338376	ENST00000559872.1	PIF1	ENSG00000140451	PIF1 5'-to-3' DNA helicase Source HGNC Symbol Acc HGNC 26220
D05	SBH1220548	ENST00000519088.5	PINX1	ENSG00000254093	PIN2 (TERF1) interacting telomerase inhibitor 1 Source HGNC Symbol Acc HGNC 30046
D06	SBH0192284	ENST00000562272.5	PLK1	ENSG00000166851	polo like kinase 1 Source HGNC Symbol Acc HGNC 9077
D07	SBH0487114	ENST00000609106.5	POT1	ENSG00000128513	protection of telomeres 1 Source HGNC Symbol Acc HGNC 17284
D08	SBH0521265	ENST00000652522.1	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
D09	SBH0592683	ENST00000454220.6	PPP2R1A	ENSG00000105568	protein phosphatase 2 scaffold subunit Aalpha Source HGNC Symbol Acc HGNC 9302
D10	SBH0598427	ENST00000341980.10	PPP2R1B	ENSG00000137713	protein phosphatase 2 scaffold subunit Abeta Source HGNC Symbol Acc HGNC 9303
D11	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
D12	SBH0521170	ENST00000472066.1	PRKCB	ENSG00000166501	protein kinase C beta Source HGNC Symbol Acc HGNC 9395
E01	SBH0182228	ENST00000314191.6	PRKDC	ENSG00000253729	protein kinase, DNA-activated, catalytic subunit Source HGNC Symbol Acc HGNC 9413
E02	SBH0469595	ENST00000456859.2	PTGES3	ENSG00000110958	prostaglandin E synthase 3 Source HGNC Symbol Acc HGNC 16049
E03	SBH0447104	ENST00000331327.4	PURA	ENSG00000185129	purine rich element binding protein A Source HGNC Symbol Acc HGNC 9701
E04	SBH0068778	ENST00000305138.8	RAD17	ENSG00000152942	RAD17 checkpoint clamp loader component Source HGNC Symbol Acc HGNC 9807
E05	SBH1220354	ENST00000651541.1	RAD50	ENSG00000113522	RAD50 double strand break repair protein Source HGNC Symbol Acc HGNC 9816
E06	SBH0176409	ENST00000356415.5	RAP1A	ENSG00000116473	RAP1A, member of RAS oncogene family Source HGNC Symbol Acc HGNC 9855
E07	SBH0395905	ENST00000372195.5	RAPGEF1	ENSG00000107263	Rap guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 4568
E08	SBH0462049	ENST00000359365.8	RASSF1	ENSG00000068028	Ras association domain family member 1 Source HGNC Symbol Acc HGNC 9882
E09	SBH0093533	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
E10	SBH0414080	ENST00000639695.1	RFC1	ENSG00000035928	replication factor C subunit 1 Source HGNC Symbol Acc HGNC 9969
E11	SBH0244509	ENST00000414861.6	RIF1	ENSG00000080345	replication timing regulatory factor 1 Source HGNC Symbol Acc HGNC 23207
E12	SBH0125731	ENST00000508582.6	RTEL1	ENSG00000258366	regulator of telomere elongation helicase 1 Source HGNC Symbol Acc HGNC 15888
F01	SBH0304771	ENST00000530251.1	SART1	ENSG00000175467	spliceosome associated factor 1, recruiter of U4/U6.U5 tri-snRNP Source HGNC Symbol Acc HGNC 10538
F02	SBH1220399	ENST00000414941.5	SIRT2	ENSG00000068903	sirtuin 2 Source HGNC Symbol Acc HGNC 10886
F03	SBH0167793	ENST00000601571.1	SIRT6	ENSG00000077463	sirtuin 6 Source HGNC Symbol Acc HGNC 14934
F04	SBH0337044	ENST00000486524.1	SLX4	ENSG00000188827	SLX4 structure-specific endonuclease subunit Source HGNC Symbol Acc HGNC 23845
F05	SBH0216540	ENST00000558428.5	SMAD3	ENSG00000166949	SMAD family member 3 Source HGNC Symbol Acc HGNC 6769
F06	SBH0333107	ENST00000570659.5	SMG6	ENSG00000070366	SMG6, nonsense mediated mRNA decay factor Source HGNC Symbol Acc HGNC 17809
F07	SBH1220419	ENST00000426431.2	SP1	ENSG00000185591	Sp1 transcription factor Source HGNC Symbol Acc HGNC 11205
F08	SBH0043264	ENST00000465871.1	SSB	ENSG00000138385	Sjogren syndrome antigen B Source HGNC Symbol Acc HGNC 11316
F09	SBH0092096	ENST00000413171.6	SUN1	ENSG00000164828	Sad1 and UNC84 domain containing 1 Source HGNC Symbol Acc HGNC 18587
F10	SBH1220438	ENST00000556935.5	TEP1	ENSG00000129566	telomerase associated protein 1 Source HGNC Symbol Acc HGNC 11726

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220439	ENST00000276603.10	TERF1	ENSG00000147601	telomeric repeat binding factor 1 Source HGNC Symbol Acc HGNC 11728
F12	SBH0165409	ENST00000567296.6	TERF2	ENSG00000132604	telomeric repeat binding factor 2 Source HGNC Symbol Acc HGNC 11729
G01	SBH0277729	ENST00000300086.5	TERF2IP	ENSG00000166848	TERF2 interacting protein Source HGNC Symbol Acc HGNC 19246
G02	SBH0606096	ENST00000334602.10	TERT	ENSG00000164362	telomerase reverse transcriptase Source HGNC Symbol Acc HGNC 11730
G03	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G04	SBH0207369	ENST00000399423.8	TINF2	ENSG00000092330	TERF1 interacting nuclear factor 2 Source HGNC Symbol Acc HGNC 11824
G05	SBH1220482	ENST00000310430.11	TNKS	ENSG00000173273	tankyrase Source HGNC Symbol Acc HGNC 11941
G06	SBH1220483	ENST00000371627.5	TNKS2	ENSG00000107854	tankyrase 2 Source HGNC Symbol Acc HGNC 15677
G07	SBH1220486	ENST00000445888.6	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G08	SBH0344481	ENST00000263801.7	TP53BP1	ENSG00000067369	tumor protein p53 binding protein 1 Source HGNC Symbol Acc HGNC 11999
G09	SBH0302755	ENST00000428886.7	TPP1	ENSG00000166340	tripeptidyl peptidase 1 Source HGNC Symbol Acc HGNC 2073
G10	SBH0151700	ENST00000431639.6	WRAP53	ENSG00000141499	WD repeat containing antisense to TP53 Source HGNC Symbol Acc HGNC 25522
G11	SBH0094175	ENST00000429133.5	XRCC5	ENSG00000079246	X-ray repair cross complementing 5 Source HGNC Symbol Acc HGNC 12833
G12	SBH0066094	ENST00000360079.7	XRCC6	ENSG00000196419	X-ray repair cross complementing 6 Source HGNC Symbol Acc HGNC 4055
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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