

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

## Human Heat Shock Proteins & Chaperones

Cat. no. 249950 SBHS-076ZA

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	COQ8A	ATF6	BAG1	BAG2	BAG3	BAG4	BAG5	CCS	CCT2	CCT3	CCT4	CCT5
B	CCT6A	CCT6B	CCT7	CRYAA	CRYAB	DNAJA1	DNAJA2	DNAJA3	DNAJA4	DNAJB1	DNAJB11	DNAJB12
C	DNAJB13	DNAJB14	DNAJB2	DNAJB5	DNAJB6	DNAJB7	DNAJB8	DNAJB9	DNAJC1	DNAJC10	DNAJC11	DNAJC12
D	DNAJC13	DNAJC14	DNAJC15	DNAJC16	DNAJC17	DNAJC18	DNAJC21	DNAJC3	DNAJC4	DNAJC5	DNAJC5B	DNAJC5G
E	DNAJC6	DNAJC7	DNAJC8	DNAJC9	HSF1	HSF2	HSF4	HSP90AA1	HSP90AB1	HSP90B1	HSPA14	HSPA1A
F	HSPA1B	HSPA1L	HSPA2	HSPA4	HSPA4L	HSPA5	HSPA6	HSPA8	HSPA9	HSPB1	HSPB2	HSPB3
G	HSPB6	HSPB7	HSPB8	HSPD1	HSPE1	HSPH1	PFDN1	PFDN2	SERPINH1	SIL1	TCP1	TOR1A
H	ACTB	B2M	GAPDH	HRPT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0255843	ENST00000366779.5	COQ8A	ENSG00000163050	coenzyme Q8A Source HGNC Symbol Acc HGNC 16812
A02	SBH1219755	ENST00000367942.4	ATF6	ENSG00000118217	activating transcription factor 6 Source HGNC Symbol Acc HGNC 791
A03	SBH1219779	ENST00000379704.7	BAG1	ENSG00000107262	BCL2 associated athanogene 1 Source HGNC Symbol Acc HGNC 937
A04	SBH0097890	ENST00000370693.5	BAG2	ENSG00000112208	BCL2 associated athanogene 2 Source HGNC Symbol Acc HGNC 938
A05	SBH0474041	ENST00000369085.7	BAG3	ENSG00000151929	BCL2 associated athanogene 3 Source HGNC Symbol Acc HGNC 939
A06	SBH0608711	ENST00000432471.6	BAG4	ENSG00000156735	BCL2 associated athanogene 4 Source HGNC Symbol Acc HGNC 940
A07	SBH0223011	ENST00000337322.4	BAG5	ENSG00000166170	BCL2 associated athanogene 5 Source HGNC Symbol Acc HGNC 941
A08	SBH1219856	ENST00000310190.8	CCS	ENSG00000173992	copper chaperone for superoxide dismutase Source HGNC Symbol Acc HGNC 1613
A09	SBH0487388	ENST00000546859.5	CCT2	ENSG00000166226	chaperonin containing TCP1 subunit 2 Source HGNC Symbol Acc HGNC 1615
A10	SBH0648709	ENST00000368262.7	CCT3	ENSG00000163468	chaperonin containing TCP1 subunit 3 Source HGNC Symbol Acc HGNC 1616
A11	SBH0656118	ENST00000394440.8	CCT4	ENSG00000115484	chaperonin containing TCP1 subunit 4 Source HGNC Symbol Acc HGNC 1617
A12	SBH0482048	ENST00000625723.1	CCT5	ENSG00000150753	chaperonin containing TCP1 subunit 5 Source HGNC Symbol Acc HGNC 1618
B01	SBH0202486	ENST00000482776.1	CCT6A	ENSG00000146731	chaperonin containing TCP1 subunit 6A Source HGNC Symbol Acc HGNC 1620
B02	SBH0145103	ENST00000421975.7	CCT6B	ENSG00000132141	chaperonin containing TCP1 subunit 6B Source HGNC Symbol Acc HGNC 1621
B03	SBH0058753	ENST00000626868.1	CCT7	ENSG00000135624	chaperonin containing TCP1 subunit 7 Source HGNC Symbol Acc HGNC 1622
B04	SBH0471707	ENST00000398133.5	CRYAA	ENSG00000160202	crystallin alpha A Source HGNC Symbol Acc HGNC 2388
B05	SBH0502900	ENST00000531198.5	CRYAB	ENSG00000109846	crystallin alpha B Source HGNC Symbol Acc HGNC 2389
B06	SBH0127774	ENST00000330899.5	DNAJA1	ENSG00000086061	DnaJ heat shock protein family (Hsp40) member A1 Source HGNC Symbol Acc HGNC 5229
B07	SBH0584615	ENST00000317089.10	DNAJA2	ENSG00000069345	DnaJ heat shock protein family (Hsp40) member A2 Source HGNC Symbol Acc HGNC 14884
B08	SBH0294009	ENST00000575106.5	DNAJA3	ENSG00000103423	DnaJ heat shock protein family (Hsp40) member A3 Source HGNC Symbol Acc HGNC 11808
B09	SBH0111208	ENST00000394852.7	DNAJA4	ENSG00000140403	DnaJ heat shock protein family (Hsp40) member A4 Source HGNC Symbol Acc HGNC 14885
B10	SBH0562621	ENST00000595992.5	DNAJB1	ENSG00000132002	DnaJ heat shock protein family (Hsp40) member B1 Source HGNC Symbol Acc HGNC 5270
B11	SBH0561581	ENST00000265028.7	DNAJB11	ENSG00000090520	DnaJ heat shock protein family (Hsp40) member B11 Source HGNC Symbol Acc HGNC 14889
B12	SBH0201898	ENST00000461919.5	DNAJB12	ENSG00000148719	DnaJ heat shock protein family (Hsp40) member B12 Source HGNC Symbol Acc HGNC 14891
C01	SBH0557101	ENST00000543947.1	DNAJB13	ENSG00000187726	DnaJ heat shock protein family (Hsp40) member B13 Source HGNC Symbol Acc HGNC 30718
C02	SBH0125312	ENST00000474664.5	DNAJB14	ENSG00000164031	DnaJ heat shock protein family (Hsp40) member B14 Source HGNC Symbol Acc HGNC 25881
C03	SBH0647336	ENST00000463463.5	DNAJB2	ENSG00000135924	DnaJ heat shock protein family (Hsp40) member B2 Source HGNC Symbol Acc HGNC 5228
C04	SBH0582835	ENST00000545841.5	DNAJB5	ENSG00000137094	DnaJ heat shock protein family (Hsp40) member B5 Source HGNC Symbol Acc HGNC 14887
C05	SBH0009112	ENST00000429029.6	DNAJB6	ENSG00000105993	DnaJ heat shock protein family (Hsp40) member B6 Source HGNC Symbol Acc HGNC 14888
C06	SBH0144842	ENST00000307221.4	DNAJB7	ENSG00000172404	DnaJ heat shock protein family (Hsp40) member B7 Source HGNC Symbol Acc HGNC 24986
C07	SBH0306621	ENST00000319153.3	DNAJB8	ENSG00000179407	DnaJ heat shock protein family (Hsp40) member B8 Source HGNC Symbol Acc HGNC 23699
C08	SBH0454356	ENST00000249356.4	DNAJB9	ENSG00000128590	DnaJ heat shock protein family (Hsp40) member B9 Source HGNC Symbol Acc HGNC 6968
C09	SBH0659457	ENST00000447548.5	DNAJC1	ENSG00000136770	DnaJ heat shock protein family (Hsp40) member C1 Source HGNC Symbol Acc HGNC 20090
C10	SBH0254101	ENST00000494462.1	DNAJC10	ENSG00000077232	DnaJ heat shock protein family (Hsp40) member C10 Source HGNC Symbol Acc HGNC 24637
		ENST00000426		ENSG000000	DnaJ heat shock protein family (Hsp40) member C11 Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0518646	784.1	DNAJC11	007923	Acc HGNC 25570
C12	SBH0086937	ENST00000480963.5	DNAJC12	ENSG00000108176	DnaJ heat shock protein family (Hsp40) member C12 Source HGNC Symbol Acc HGNC 28908
D01	SBH0505888	ENST00000464766.1	DNAJC13	ENSG00000138246	DnaJ heat shock protein family (Hsp40) member C13 Source HGNC Symbol Acc HGNC 30343
D02	SBH0456577	ENST00000546957.1	DNAJC14	ENSG00000135392	DnaJ heat shock protein family (Hsp40) member C14 Source HGNC Symbol Acc HGNC 24581
D03	SBH0420410	ENST00000474320.1	DNAJC15	ENSG00000120675	DnaJ heat shock protein family (Hsp40) member C15 Source HGNC Symbol Acc HGNC 20325
D04	SBH0220793	ENST00000616884.4	DNAJC16	ENSG00000116138	DnaJ heat shock protein family (Hsp40) member C16 Source HGNC Symbol Acc HGNC 29157
D05	SBH0643317	ENST00000560301.5	DNAJC17	ENSG00000104129	DnaJ heat shock protein family (Hsp40) member C17 Source HGNC Symbol Acc HGNC 25556
D06	SBH0182965	ENST00000506870.5	DNAJC18	ENSG00000170464	DnaJ heat shock protein family (Hsp40) member C18 Source HGNC Symbol Acc HGNC 28429
D07	SBH0658131	ENST00000648817.1	DNAJC21	ENSG00000168724	DnaJ heat shock protein family (Hsp40) member C21 Source HGNC Symbol Acc HGNC 27030
D08	SBH1219956	ENST00000602402.6	DNAJC3	ENSG00000102580	DnaJ heat shock protein family (Hsp40) member C3 Source HGNC Symbol Acc HGNC 9439
D09	SBH0605021	ENST00000355040.8	DNAJC4	ENSG00000110011	DnaJ heat shock protein family (Hsp40) member C4 Source HGNC Symbol Acc HGNC 5271
D10	SBH0270601	ENST00000360864.9	DNAJC5	ENSG00000101152	DnaJ heat shock protein family (Hsp40) member C5 Source HGNC Symbol Acc HGNC 16235
D11	SBH0036000	ENST00000519330.1	DNAJC5B	ENSG00000147570	DnaJ heat shock protein family (Hsp40) member C5 beta Source HGNC Symbol Acc HGNC 24138
D12	SBH0614485	ENST00000420191.5	DNAJC5G	ENSG00000163793	DnaJ heat shock protein family (Hsp40) member C5 gamma Source HGNC Symbol Acc HGNC 24844
E01	SBH0266599	ENST00000395325.7	DNAJC6	ENSG00000116675	DnaJ heat shock protein family (Hsp40) member C6 Source HGNC Symbol Acc HGNC 15469
E02	SBH0261156	ENST00000588641.5	DNAJC7	ENSG00000168259	DnaJ heat shock protein family (Hsp40) member C7 Source HGNC Symbol Acc HGNC 12392
E03	SBH0310005	ENST00000489277.5	DNAJC8	ENSG00000126698	DnaJ heat shock protein family (Hsp40) member C8 Source HGNC Symbol Acc HGNC 15470
E04	SBH0450749	ENST00000469143.1	DNAJC9	ENSG00000213551	DnaJ heat shock protein family (Hsp40) member C9 Source HGNC Symbol Acc HGNC 19123
E05	SBH0562949	ENST00000528199.5	HSF1	ENSG00000185122	heat shock transcription factor 1 Source HGNC Symbol Acc HGNC 5224
E06	SBH0593510	ENST00000465214.2	HSF2	ENSG00000025156	heat shock transcription factor 2 Source HGNC Symbol Acc HGNC 5225
E07	SBH0120051	ENST00000521374.5	HSF4	ENSG00000102878	heat shock transcription factor 4 Source HGNC Symbol Acc HGNC 5227
E08	SBH0323386	ENST00000334701.11	HSP90AA1	ENSG00000080824	heat shock protein 90 alpha family class A member 1 Source HGNC Symbol Acc HGNC 5253
E09	SBH1220555	ENST00000371646.10	HSP90AB1	ENSG00000096384	heat shock protein 90 alpha family class B member 1 Source HGNC Symbol Acc HGNC 5258
E10	SBH1220070	ENST00000299767.10	HSP90B1	ENSG00000166598	heat shock protein 90 beta family member 1 Source HGNC Symbol Acc HGNC 12028
E11	SBH0612547	ENST00000378372.8	HSPA14	ENSG00000187522	heat shock protein family A (Hsp70) member 14 Source HGNC Symbol Acc HGNC 29526
E12	SBH0315359	ENST00000375651.6	HSPA1A	ENSG00000204389	heat shock protein family A (Hsp70) member 1A Source HGNC Symbol Acc HGNC 5232
F01	SBH0574947	ENST00000375650.5	HSPA1B	ENSG00000204388	heat shock protein family A (Hsp70) member 1B Source HGNC Symbol Acc HGNC 5233
F02	SBH0418033	ENST00000375654.5	HSPA1L	ENSG00000204390	heat shock protein family A (Hsp70) member 1 like Source HGNC Symbol Acc HGNC 5234
F03	SBH0647573	ENST00000394709.2	HSPA2	ENSG00000126803	heat shock protein family A (Hsp70) member 2 Source HGNC Symbol Acc HGNC 5235
F04	SBH1220071	ENST00000617074.4	HSPA4	ENSG00000170606	heat shock protein family A (Hsp70) member 4 Source HGNC Symbol Acc HGNC 5237
F05	SBH0513684	ENST00000515262.1	HSPA4L	ENSG00000164070	heat shock protein family A (Hsp70) member 4 like Source HGNC Symbol Acc HGNC 17041
F06	SBH1220072	ENST00000324460.7	HSPA5	ENSG00000044574	heat shock protein family A (Hsp70) member 5 Source HGNC Symbol Acc HGNC 5238
F07	SBH0555156	ENST00000309758.6	HSPA6	ENSG00000173110	heat shock protein family A (Hsp70) member 6 Source HGNC Symbol Acc HGNC 5239
F08	SBH1220073	ENST00000534319.5	HSPA8	ENSG00000109971	heat shock protein family A (Hsp70) member 8 Source HGNC Symbol Acc HGNC 5241
F09	SBH0281690	ENST00000649126.1	HSPA9	ENSG00000113013	heat shock protein family A (Hsp70) member 9 Source HGNC Symbol Acc HGNC 5244
F10	SBH0474094	ENST00000429938.1	HSPB1	ENSG00000106211	heat shock protein family B (small) member 1 Source HGNC Symbol Acc HGNC 5246

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0237212	ENST00000304298.4	HSPB2	ENSG00000170276	heat shock protein family B (small) member 2 Source HGNC Symbol Acc HGNC 5247
F12	SBH0301932	ENST00000302005.3	HSPB3	ENSG00000169271	heat shock protein family B (small) member 3 Source HGNC Symbol Acc HGNC 5248
G01	SBH0149059	ENST00000587965.1	HSPB6	ENSG00000004776	heat shock protein family B (small) member 6 Source HGNC Symbol Acc HGNC 26511
G02	SBH0654649	ENST00000463576.5	HSPB7	ENSG00000173641	heat shock protein family B (small) member 7 Source HGNC Symbol Acc HGNC 5249
G03	SBH0487845	ENST00000542496.1	HSPB8	ENSG00000152137	heat shock protein family B (small) member 8 Source HGNC Symbol Acc HGNC 30171
G04	SBH1220074	ENST00000388968.8	HSPD1	ENSG00000144381	heat shock protein family D (Hsp60) member 1 Source HGNC Symbol Acc HGNC 5261
G05	SBH0341745	ENST00000409729.1	HSPE1	ENSG00000115541	heat shock protein family E (Hsp10) member 1 Source HGNC Symbol Acc HGNC 5269
G06	SBH0198871	ENST00000445273.6	HSPH1	ENSG00000120694	heat shock protein family H (Hsp110) member 1 Source HGNC Symbol Acc HGNC 16969
G07	SBH0044064	ENST00000507185.1	PFDN1	ENSG00000113068	prefoldin subunit 1 Source HGNC Symbol Acc HGNC 8866
G08	SBH0515881	ENST00000368010.4	PFDN2	ENSG00000143256	prefoldin subunit 2 Source HGNC Symbol Acc HGNC 8867
G09	SBH0596911	ENST00000358171.7	SERPINH1	ENSG00000149257	serpin family H member 1 Source HGNC Symbol Acc HGNC 1546
G10	SBH0471339	ENST00000508639.5	SIL1	ENSG00000120725	SIL1 nucleotide exchange factor Source HGNC Symbol Acc HGNC 24624
G11	SBH0165501	ENST00000538128.5	TCP1	ENSG00000120438	t-complex 1 Source HGNC Symbol Acc HGNC 11655
G12	SBH0522359	ENST00000351698.5	TOR1A	ENSG00000136827	torsin family 1 member A Source HGNC Symbol Acc HGNC 3098
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 $\mu$ 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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