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

Human Unfolded Protein Response

Cat. no. 249950 SBHS-089ZR

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	AMFR	ATF4	ATF6	ATF6B	ATXN3	BAX	CALR	CANX	CCT4	CCT7	CEBPB	CREB3
B	CREB3L3	DDIT3	DERL1	DERL2	DNAJB2	DNAJB9	DNAJC10	DNAJC3	DNAJC4	EDEM1	EDEM3	EIF2A
C	EIF2AK3	ERN1	ERN2	ERO1A	ERO1B	ERP44	FBXO6	GANAB	GANC	HERPUD1	HSPA1B	HSPA1L
D	HSPA2	HSPA4	HSPA4L	HSPA5	HSPH1	HTRA2	HTRA4	INSIG1	INSIG2	MANF	MAPK10	MAPK8
E	MAPK9	MBTPS1	MBTPS2	NPLOC4	NUCB1	OS9	PDIA3	PFDN2	PFDN5	PPIA	PPP1R15A	PRKCSH
F	RNF139	RNF5	RPN1	SCAP	SEC62	SEC63	SEL1L	SELENOS	SERP1	SIL1	SREBF1	SREBF2
G	SYVN1	TCP1	TOR1A	UBE2G2	UBE2J2	UBXN4	UFD1	UGGT1	UGGT2	USP14	VCP	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	SBH0578186	ENST00000568325.1	AMFR	ENSG00000159461	autocrine motility factor receptor Source HGNC Symbol Acc HGNC 463
A02	SBH1219754	ENST00000404241.6	ATF4	ENSG00000128272	activating transcription factor 4 Source HGNC Symbol Acc HGNC 786
A03	SBH1219755	ENST00000367942.4	ATF6	ENSG00000118217	activating transcription factor 6 Source HGNC Symbol Acc HGNC 791
A04	SBH0019495	ENST00000495579.5	ATF6B	ENSG00000213676	activating transcription factor 6 beta Source HGNC Symbol Acc HGNC 2349
A05	SBH0024290	ENST00000558190.6	ATXN3	ENSG00000066427	ataxin 3 Source HGNC Symbol Acc HGNC 7106
A06	SBH1219783	ENST00000391871.4	BAX	ENSG00000087088	BCL2 associated X, apoptosis regulator Source HGNC Symbol Acc HGNC 959
A07	SBH0031560	ENST00000316448.9	CALR	ENSG00000179218	calreticulin Source HGNC Symbol Acc HGNC 1455
A08	SBH0265983	ENST00000502673.5	CANX	ENSG00000127022	calnexin Source HGNC Symbol Acc HGNC 1473
A09	SBH0656118	ENST00000394440.8	CCT4	ENSG00000115484	chaperonin containing TCP1 subunit 4 Source HGNC Symbol Acc HGNC 1617
A10	SBH0058753	ENST00000626868.1	CCT7	ENSG00000135624	chaperonin containing TCP1 subunit 7 Source HGNC Symbol Acc HGNC 1622
A11	SBH0569983	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
A12	SBH0523698	ENST00000486056.1	CREB3	ENSG00000107175	cAMP responsive element binding protein 3 Source HGNC Symbol Acc HGNC 2347
B01	SBH0556037	ENST00000602147.1	CREB3L3	ENSG00000060566	cAMP responsive element binding protein 3 like 3 Source HGNC Symbol Acc HGNC 18855
B02	SBH0602366	ENST00000346473.7	DDIT3	ENSG00000175197	DNA damage inducible transcript 3 Source HGNC Symbol Acc HGNC 2726
B03	SBH0600537	ENST00000524119.1	DERL1	ENSG00000136986	derlin 1 Source HGNC Symbol Acc HGNC 28454
B04	SBH0452124	ENST00000572834.5	DERL2	ENSG00000072849	derlin 2 Source HGNC Symbol Acc HGNC 17943
B05	SBH0647336	ENST00000463463.5	DNAJB2	ENSG00000135924	DnaJ heat shock protein family (Hsp40) member B2 Source HGNC Symbol Acc HGNC 5228
B06	SBH0454356	ENST00000249356.4	DNAJB9	ENSG00000128590	DnaJ heat shock protein family (Hsp40) member B9 Source HGNC Symbol Acc HGNC 6968
B07	SBH0254101	ENST00000494462.1	DNAJC10	ENSG00000077232	DnaJ heat shock protein family (Hsp40) member C10 Source HGNC Symbol Acc HGNC 24637
B08	SBH1219956	ENST00000602402.6	DNAJC3	ENSG00000102580	DnaJ heat shock protein family (Hsp40) member C3 Source HGNC Symbol Acc HGNC 9439
B09	SBH0605021	ENST00000355040.8	DNAJC4	ENSG00000110011	DnaJ heat shock protein family (Hsp40) member C4 Source HGNC Symbol Acc HGNC 5271
B10	SBH0630231	ENST00000434243.5	EDEM1	ENSG00000134109	ER degradation enhancing alpha-mannosidase like protein 1 Source HGNC Symbol Acc HGNC 18967
B11	SBH0002655	ENST00000367512.7	EDEM3	ENSG00000116406	ER degradation enhancing alpha-mannosidase like protein 3 Source HGNC Symbol Acc HGNC 16787
B12	SBH0026171	ENST00000494558.5	EIF2A	ENSG00000144895	eukaryotic translation initiation factor 2A Source HGNC Symbol Acc HGNC 3254
C01	SBH1219972	ENST00000303236.8	EIF2AK3	ENSG00000172071	eukaryotic translation initiation factor 2 alpha kinase 3 Source HGNC Symbol Acc HGNC 3255
C02	SBH0314418	ENST00000433197.4	ERN1	ENSG00000178607	endoplasmic reticulum to nucleus signaling 1 Source HGNC Symbol Acc HGNC 3449
C03	SBH0595178	ENST00000256797.9	ERN2	ENSG00000134398	endoplasmic reticulum to nucleus signaling 2 Source HGNC Symbol Acc HGNC 16942
C04	SBH0370090	ENST00000395686.8	ERO1A	ENSG00000197930	endoplasmic reticulum oxidoreductase 1 alpha Source HGNC Symbol Acc HGNC 13280
C05	SBH0664145	ENST00000264181.6	ERO1B	ENSG00000086619	endoplasmic reticulum oxidoreductase 1 beta Source HGNC Symbol Acc HGNC 14355
C06	SBH0001639	ENST00000262455.7	ERP44	ENSG00000023318	endoplasmic reticulum protein 44 Source HGNC Symbol Acc HGNC 18311
C07	SBH0215599	ENST00000449067.1	FBXO6	ENSG00000116663	F-box protein 6 Source HGNC Symbol Acc HGNC 13585
C08	SBH0041525	ENST00000534613.5	GANAB	ENSG00000089597	glucosidase II alpha subunit Source HGNC Symbol Acc HGNC 4138
C09	SBH0414008	ENST00000566442.5	GANC	ENSG00000214013	glucosidase alpha, neutral C Source HGNC Symbol Acc HGNC 4139
C10	SBH1220053	ENST00000563343.5	HERPUD1	ENSG00000051108	homocysteine inducible ER protein with ubiquitin like domain 1 Source HGNC Symbol Acc HGNC 13744
		ENST00000375		ENSG00000	heat shock protein family A (Hsp70) member 1B Source HGNC Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0574947	650.5	HSPA1B	204388	HGNC 5233
C12	SBH0418033	ENST00000375654.5	HSPA1L	ENSG00000204390	heat shock protein family A (Hsp70) member 1 like Source HGNC Symbol Acc HGNC 5234
D01	SBH0647573	ENST00000394709.2	HSPA2	ENSG00000126803	heat shock protein family A (Hsp70) member 2 Source HGNC Symbol Acc HGNC 5235
D02	SBH1220071	ENST00000617074.4	HSPA4	ENSG00000170606	heat shock protein family A (Hsp70) member 4 Source HGNC Symbol Acc HGNC 5237
D03	SBH0513684	ENST00000515262.1	HSPA4L	ENSG00000164070	heat shock protein family A (Hsp70) member 4 like Source HGNC Symbol Acc HGNC 17041
D04	SBH1220072	ENST00000324460.7	HSPA5	ENSG00000044574	heat shock protein family A (Hsp70) member 5 Source HGNC Symbol Acc HGNC 5238
D05	SBH0198871	ENST00000445273.6	HSPH1	ENSG00000120694	heat shock protein family H (Hsp110) member 1 Source HGNC Symbol Acc HGNC 16969
D06	SBH0253615	ENST00000437202.1	HTRA2	ENSG00000115317	HtrA serine peptidase 2 Source HGNC Symbol Acc HGNC 14348
D07	SBH0391929	ENST00000302495.5	HTRA4	ENSG00000169495	HtrA serine peptidase 4 Source HGNC Symbol Acc HGNC 26909
D08	SBH0221610	ENST00000344756.8	INSIG1	ENSG00000186480	insulin induced gene 1 Source HGNC Symbol Acc HGNC 6083
D09	SBH0239121	ENST00000467223.5	INSIG2	ENSG00000125629	insulin induced gene 2 Source HGNC Symbol Acc HGNC 20452
D10	SBH0332467	ENST00000649711.1	MANF	ENSG00000145050	mesencephalic astrocyte derived neurotrophic factor Source HGNC Symbol Acc HGNC 15461
D11	SBH0213234	ENST00000641208.1	MAPK10	ENSG00000109339	mitogen-activated protein kinase 10 Source HGNC Symbol Acc HGNC 6872
D12	SBH0294318	ENST00000395611.7	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
E01	SBH0380071	ENST00000343111.10	MAPK9	ENSG00000050748	mitogen-activated protein kinase 9 Source HGNC Symbol Acc HGNC 6886
E02	SBH0172798	ENST00000565863.1	MBTPS1	ENSG00000140943	membrane bound transcription factor peptidase, site 1 Source HGNC Symbol Acc HGNC 15456
E03	SBH0040692	ENST00000365779.2	MBTPS2	ENSG00000012174	membrane bound transcription factor peptidase, site 2 Source HGNC Symbol Acc HGNC 15455
E04	SBH0148382	ENST00000576940.1	NPLOC4	ENSG00000182446	NPL4 homolog, ubiquitin recognition factor Source HGNC Symbol Acc HGNC 18261
E05	SBH0454997	ENST00000411700.5	NUCB1	ENSG00000104805	nucleobindin 1 Source HGNC Symbol Acc HGNC 8043
E06	SBH0562012	ENST00000439210.6	OS9	ENSG00000135506	OS9, endoplasmic reticulum lectin Source HGNC Symbol Acc HGNC 16994
E07	SBH0339629	ENST00000300289.10	PDIA3	ENSG00000167004	protein disulfide isomerase family A member 3 Source HGNC Symbol Acc HGNC 4606
E08	SBH0515881	ENST00000368010.4	PFDN2	ENSG00000143256	prefoldin subunit 2 Source HGNC Symbol Acc HGNC 8867
E09	SBH0006482	ENST00000552341.5	PFDN5	ENSG00000123349	prefoldin subunit 5 Source HGNC Symbol Acc HGNC 8869
E10	SBH1220552	ENST00000468812.6	PPIA	ENSG00000196262	peptidylprolyl isomerase A Source HGNC Symbol Acc HGNC 9253
E11	SBH1220326	ENST00000200453.6	PPP1R15A	ENSG00000087074	protein phosphatase 1 regulatory subunit 15A Source HGNC Symbol Acc HGNC 14375
E12	SBH0313432	ENST00000592741.5	PRKCSH	ENSG00000130175	protein kinase C substrate 80K-H Source HGNC Symbol Acc HGNC 9411
F01	SBH0441730	ENST00000303545.3	RNF139	ENSG00000170881	ring finger protein 139 Source HGNC Symbol Acc HGNC 17023
F02	SBH0549522	ENST00000487940.1	RNF5	ENSG00000204308	ring finger protein 5 Source HGNC Symbol Acc HGNC 10068
F03	SBH0041710	ENST00000495462.5	RPN1	ENSG00000163902	ribophorin I Source HGNC Symbol Acc HGNC 10381
F04	SBH0292378	ENST00000485967.1	SCAP	ENSG00000114650	SREBF chaperone Source HGNC Symbol Acc HGNC 30634
F05	SBH0208396	ENST00000469515.6	SEC62	ENSG00000008952	SEC62 homolog, preprotein translocation factor Source HGNC Symbol Acc HGNC 11846
F06	SBH0014596	ENST00000429168.1	SEC63	ENSG00000025796	SEC63 homolog, protein translocation regulator Source HGNC Symbol Acc HGNC 21082
F07	SBH0304363	ENST00000557372.1	SEL1L	ENSG00000071537	SEL1L, ERAD E3 ligase adaptor subunit Source HGNC Symbol Acc HGNC 10717
F08	SBH1220519	ENST00000528346.1	SELENOS	ENSG00000131871	selenoprotein S Source HGNC Symbol Acc HGNC 30396
F09	SBH0554596	ENST00000479209.1	SERP1	ENSG00000120742	stress associated endoplasmic reticulum protein 1 Source HGNC Symbol Acc HGNC 10759
F10	SBH0471339	ENST00000508639.5	SIL1	ENSG00000120725	SIL1 nucleotide exchange factor Source HGNC Symbol Acc HGNC 24624

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0652491	ENST00000423161.3	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
F12	SBH0331510	ENST00000424354.5	SREBF2	ENSG00000198911	sterol regulatory element binding transcription factor 2 Source HGNC Symbol Acc HGNC 11290
G01	SBH0347726	ENST00000307289.10	SYVN1	ENSG00000162298	synoviolin 1 Source HGNC Symbol Acc HGNC 20738
G02	SBH0165501	ENST00000538128.5	TCP1	ENSG00000120438	t-complex 1 Source HGNC Symbol Acc HGNC 11655
G03	SBH0522359	ENST00000351698.5	TOR1A	ENSG00000136827	torsin family 1 member A Source HGNC Symbol Acc HGNC 3098
G04	SBH0220204	ENST00000462569.5	UBE2G2	ENSG00000184787	ubiquitin conjugating enzyme E2 G2 Source HGNC Symbol Acc HGNC 12483
G05	SBH0445783	ENST00000471154.1	UBE2J2	ENSG00000160087	ubiquitin conjugating enzyme E2 J2 Source HGNC Symbol Acc HGNC 19268
G06	SBH0107161	ENST00000416538.5	UBXN4	ENSG00000144224	UBX domain protein 4 Source HGNC Symbol Acc HGNC 14860
G07	SBH0151110	ENST00000447868.5	UFD1	ENSG00000070010	ubiquitin recognition factor in ER associated degradation 1 Source HGNC Symbol Acc HGNC 12520
G08	SBH0200086	ENST00000376723.7	UGGT1	ENSG00000136731	UDP-glucose glycoprotein glucosyltransferase 1 Source HGNC Symbol Acc HGNC 15663
G09	SBH0537999	ENST00000638479.1	UGGT2	ENSG00000102595	UDP-glucose glycoprotein glucosyltransferase 2 Source HGNC Symbol Acc HGNC 15664
G10	SBH0350149	ENST00000582707.5	USP14	ENSG00000101557	ubiquitin specific peptidase 14 Source HGNC Symbol Acc HGNC 12612
G11	SBH0116312	ENST00000448530.5	VCP	ENSG00000165280	valosin containing protein Source HGNC Symbol Acc HGNC 12666
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 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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