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

Human Unfolded Protein Response

Cat. no. 249955 UPHS-089ZR

For study focus gene expression analysis

Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light 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 Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

Panel layout (Rotor-Gene): QuantiNova LNA Probe 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 Probe PCR 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 Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFH0449321	ENST00000492830.5	AMFR	ENSG00000159461	autocrine motility factor receptor Source HGNC Symbol Acc HGNC 463
A02	UPFH1132244	ENST00000404241.6	ATF4	ENSG00000128272	activating transcription factor 4 Source HGNC Symbol Acc HGNC 786
A03	UPFH1132245	ENST00000367942.4	ATF6	ENSG00000118217	activating transcription factor 6 Source HGNC Symbol Acc HGNC 791
A04	UPFH1132246	ENST00000375203.8	ATF6B	ENSG00000213676	activating transcription factor 6 beta Source HGNC Symbol Acc HGNC 2349
A05	UPFH0013942	ENST00000502250.5	ATXN3	ENSG00000066427	ataxin 3 Source HGNC Symbol Acc HGNC 7106
A06	UPFH0540159	ENST00000293288.12	BAX	ENSG00000087088	BCL2 associated X, apoptosis regulator Source HGNC Symbol Acc HGNC 959
A07	UPFH0025967	ENST00000316448.9	CALR	ENSG00000179218	calreticulin Source HGNC Symbol Acc HGNC 1455
A08	UPFH0114306	ENST00000504579.5	CANX	ENSG00000127022	calnexin Source HGNC Symbol Acc HGNC 1473
A09	UPFH0540146	ENST00000544079.2	CCT4	ENSG00000115484	chaperonin containing TCP1 subunit 4 Source HGNC Symbol Acc HGNC 1617
A10	UPFH0445135	ENST00000399032.2	CCT7	ENSG00000135624	chaperonin containing TCP1 subunit 7 Source HGNC Symbol Acc HGNC 1622
A11	UPFH0202295	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
A12	UPFH0611876	ENST00000486056.1	CREB3	ENSG00000107175	cAMP responsive element binding protein 3 Source HGNC Symbol Acc HGNC 2347
B01	UPFH0176510	ENST00000602147.1	CREB3L3	ENSG00000060566	cAMP responsive element binding protein 3 like 3 Source HGNC Symbol Acc HGNC 18855
B02	UPFH0523891	ENST00000346473.7	DDIT3	ENSG00000175197	DNA damage inducible transcript 3 Source HGNC Symbol Acc HGNC 2726
B03	UPFH0545061	ENST00000405944.7	DERL1	ENSG00000136986	derlin 1 Source HGNC Symbol Acc HGNC 28454
B04	UPFH0050037	ENST00000572834.5	DERL2	ENSG00000072849	derlin 2 Source HGNC Symbol Acc HGNC 17943
B05	UPFH1125221	ENST00000442681.5	DNAJB2	ENSG00000135924	DnaJ heat shock protein family (Hsp40) member B2 Source HGNC Symbol Acc HGNC 5228
B06	UPFH0227679	ENST00000249356.4	DNAJB9	ENSG00000128590	DnaJ heat shock protein family (Hsp40) member B9 Source HGNC Symbol Acc HGNC 6968
B07	UPFH0339095	ENST00000469118.5	DNAJC10	ENSG00000077232	DnaJ heat shock protein family (Hsp40) member C10 Source HGNC Symbol Acc HGNC 24637
B08	UPFH1132364	ENST00000602402.6	DNAJC3	ENSG00000102580	DnaJ heat shock protein family (Hsp40) member C3 Source HGNC Symbol Acc HGNC 9439
B09	UPFH0368905	ENST00000355040.8	DNAJC4	ENSG00000110011	DnaJ heat shock protein family (Hsp40) member C4 Source HGNC Symbol Acc HGNC 5271
B10	UPFH0169288	ENST00000465369.5	EDEM1	ENSG00000134109	ER degradation enhancing alpha-mannosidase like protein 1 Source HGNC Symbol Acc HGNC 18967
B11	UPFH0579202	ENST00000466606.1	EDEM3	ENSG00000116406	ER degradation enhancing alpha-mannosidase like protein 3 Source HGNC Symbol Acc HGNC 16787
B12	UPFH0607249	ENST00000462221.5	EIF2A	ENSG00000144895	eukaryotic translation initiation factor 2A Source HGNC Symbol Acc HGNC 3254
C01	UPFH1132382	ENST00000419748.6	EIF2AK3	ENSG00000172071	eukaryotic translation initiation factor 2 alpha kinase 3 Source HGNC Symbol Acc HGNC 3255
C02	UPFH0041062	ENST00000584041.1	ERN1	ENSG00000178607	endoplasmic reticulum to nucleus signaling 1 Source HGNC Symbol Acc HGNC 3449
C03	UPFH0289640	ENST00000256797.9	ERN2	ENSG00000134398	endoplasmic reticulum to nucleus signaling 2 Source HGNC Symbol Acc HGNC 16942
C04	UPFH0146044	ENST00000395686.8	ERO1A	ENSG00000197930	endoplasmic reticulum oxidoreductase 1 alpha Source HGNC Symbol Acc HGNC 13280
C05	UPFH0279758	ENST00000354619.9	ERO1B	ENSG00000086619	endoplasmic reticulum oxidoreductase 1 beta Source HGNC Symbol Acc HGNC 14355
C06	UPFH0129032	ENST00000262455.7	ERP44	ENSG00000023318	endoplasmic reticulum protein 44 Source HGNC Symbol Acc HGNC 18311
C07	UPFH0614176	ENST00000474239.1	FBXO6	ENSG00000116663	F-box protein 6 Source HGNC Symbol Acc HGNC 13585
C08	UPFH0275097	ENST00000534422.5	GANAB	ENSG00000089597	glucosidase II alpha subunit Source HGNC Symbol Acc HGNC 4138
C09	UPFH0412308	ENST00000566442.5	GANC	ENSG00000214013	glucosidase alpha, neutral C Source HGNC Symbol Acc HGNC 4139
C10	UPFH1132441	ENST00000379792.6	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	UPFH0038526	650.5	HSPA1B	204388	HGNC 5233
C12	UPFH0163270	ENST00000375654.5	HSPA1L	ENSG00000204390	heat shock protein family A (Hsp70) member 1 like Source HGNC Symbol Acc HGNC 5234
D01	UPFH0516049	ENST00000394709.2	HSPA2	ENSG00000126803	heat shock protein family A (Hsp70) member 2 Source HGNC Symbol Acc HGNC 5235
D02	UPFH1132457	ENST00000304858.7	HSPA4	ENSG00000170606	heat shock protein family A (Hsp70) member 4 Source HGNC Symbol Acc HGNC 5237
D03	UPFH1132458	ENST00000505726.1	HSPA4L	ENSG00000164070	heat shock protein family A (Hsp70) member 4 like Source HGNC Symbol Acc HGNC 17041
D04	UPFH1132459	ENST00000324460.7	HSPA5	ENSG00000044574	heat shock protein family A (Hsp70) member 5 Source HGNC Symbol Acc HGNC 5238
D05	UPFH0572447	ENST00000435381.5	HSPH1	ENSG00000120694	heat shock protein family H (Hsp110) member 1 Source HGNC Symbol Acc HGNC 16969
D06	UPFH0324644	ENST00000437202.1	HTRA2	ENSG00000115317	HtrA serine peptidase 2 Source HGNC Symbol Acc HGNC 14348
D07	UPFH0318165	ENST00000302495.5	HTRA4	ENSG00000169495	HtrA serine peptidase 4 Source HGNC Symbol Acc HGNC 26909
D08	UPFH0345810	ENST00000340368.9	INSIG1	ENSG00000186480	insulin induced gene 1 Source HGNC Symbol Acc HGNC 6083
D09	UPFH0593358	ENST00000467223.5	INSIG2	ENSG00000125629	insulin induced gene 2 Source HGNC Symbol Acc HGNC 20452
D10	UPFH0257014	ENST00000528157.5	MANF	ENSG00000145050	mesencephalic astrocyte derived neurotrophic factor Source HGNC Symbol Acc HGNC 15461
D11	UPFH0530550	ENST00000641563.1	MAPK10	ENSG00000109339	mitogen-activated protein kinase 10 Source HGNC Symbol Acc HGNC 6872
D12	UPFH1132535	ENST00000374179.8	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
E01	UPFH0148170	ENST00000397072.7	MAPK9	ENSG00000050748	mitogen-activated protein kinase 9 Source HGNC Symbol Acc HGNC 6886
E02	UPFH0535700	ENST00000570064.5	MBTPS1	ENSG00000140943	membrane bound transcription factor peptidase, site 1 Source HGNC Symbol Acc HGNC 15456
E03	UPFH0114075	ENST00000365779.2	MBTPS2	ENSG00000012174	membrane bound transcription factor peptidase, site 2 Source HGNC Symbol Acc HGNC 15455
E04	UPFH0564942	ENST00000576713.6	NPLOC4	ENSG00000182446	NPL4 homolog, ubiquitin recognition factor Source HGNC Symbol Acc HGNC 18261
E05	UPFH0512304	ENST00000424608.1	NUCB1	ENSG00000104805	nucleobindin 1 Source HGNC Symbol Acc HGNC 8043
E06	UPFH0116085	ENST00000257966.12	OS9	ENSG00000135506	OS9, endoplasmic reticulum lectin Source HGNC Symbol Acc HGNC 16994
E07	UPFH0455815	ENST00000455250.1	PDIA3	ENSG00000167004	protein disulfide isomerase family A member 3 Source HGNC Symbol Acc HGNC 4606
E08	UPFH0267668	ENST00000368010.4	PFDN2	ENSG00000143256	prefoldin subunit 2 Source HGNC Symbol Acc HGNC 8867
E09	UPFH0155911	ENST00000550880.5	PFDN5	ENSG00000123349	prefoldin subunit 5 Source HGNC Symbol Acc HGNC 8869
E10	UPFH1172937	ENST00000479021.1	PPIA	ENSG00000196262	peptidylprolyl isomerase A Source HGNC Symbol Acc HGNC 9253
E11	UPFH1132630	ENST00000600406.1	PPP1R15A	ENSG00000087074	protein phosphatase 1 regulatory subunit 15A Source HGNC Symbol Acc HGNC 14375
E12	UPFH0613378	ENST00000589126.5	PRKCSH	ENSG00000130175	protein kinase C substrate 80K-H Source HGNC Symbol Acc HGNC 9411
F01	UPFH0017585	ENST00000303545.3	RNF139	ENSG00000170881	ring finger protein 139 Source HGNC Symbol Acc HGNC 17023
F02	UPFH0180870	ENST00000375094.4	RNF5	ENSG00000204308	ring finger protein 5 Source HGNC Symbol Acc HGNC 10068
F03	UPFH0142221	ENST00000495462.5	RPN1	ENSG00000163902	ribophorin I Source HGNC Symbol Acc HGNC 10381
F04	UPFH0258441	ENST00000416208.5	SCAP	ENSG00000114650	SREBF chaperone Source HGNC Symbol Acc HGNC 30634
F05	UPFH0124539	ENST00000480708.5	SEC62	ENSG00000008952	SEC62 homolog, preprotein translocation factor Source HGNC Symbol Acc HGNC 11846
F06	UPFH0607301	ENST00000429168.1	SEC63	ENSG00000025796	SEC63 homolog, protein translocation regulator Source HGNC Symbol Acc HGNC 21082
F07	UPFH0592774	ENST00000555824.5	SEL1L	ENSG00000071537	SEL1L, ERAD E3 ligase adaptor subunit Source HGNC Symbol Acc HGNC 10717
F08	UPFH0392383	ENST00000398226.7	SELENOS	ENSG00000131871	selenoprotein S Source HGNC Symbol Acc HGNC 30396
F09	UPFH0297915	ENST00000487153.1	SERP1	ENSG00000120742	stress associated endoplasmic reticulum protein 1 Source HGNC Symbol Acc HGNC 10759
F10	UPFH0421264	ENST00000509534.5	SIL1	ENSG00000120725	SIL1 nucleotide exchange factor Source HGNC Symbol Acc HGNC 24624

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0380685	ENST00000490796.1	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
F12	UPFH0366862	ENST00000462539.1	SREBF2	ENSG00000198911	sterol regulatory element binding transcription factor 2 Source HGNC Symbol Acc HGNC 11290
G01	UPFH0460316	ENST00000529207.5	SYVN1	ENSG00000162298	synoviolin 1 Source HGNC Symbol Acc HGNC 20738
G02	UPFH0050568	ENST00000392168.6	TCP1	ENSG00000120438	t-complex 1 Source HGNC Symbol Acc HGNC 11655
G03	UPFH0518786	ENST00000473604.2	TOR1A	ENSG00000136827	torsin family 1 member A Source HGNC Symbol Acc HGNC 3098
G04	UPFH0108733	ENST00000462569.5	UBE2G2	ENSG00000184787	ubiquitin conjugating enzyme E2 G2 Source HGNC Symbol Acc HGNC 12483
G05	UPFH0431624	ENST00000435198.5	UBE2J2	ENSG00000160087	ubiquitin conjugating enzyme E2 J2 Source HGNC Symbol Acc HGNC 19268
G06	UPFH0555722	ENST00000471246.1	UBXN4	ENSG00000144224	UBX domain protein 4 Source HGNC Symbol Acc HGNC 14860
G07	UPFH0148406	ENST00000263202.15	UFD1	ENSG00000070010	ubiquitin recognition factor in ER associated degradation 1 Source HGNC Symbol Acc HGNC 12520
G08	UPFH0373200	ENST00000376723.7	UGGT1	ENSG00000136731	UDP-glucose glycoprotein glucosyltransferase 1 Source HGNC Symbol Acc HGNC 15663
G09	UPFH0528654	ENST00000376714.7	UGGT2	ENSG00000102595	UDP-glucose glycoprotein glucosyltransferase 2 Source HGNC Symbol Acc HGNC 15664
G10	UPFH0589655	ENST00000578942.5	USP14	ENSG00000101557	ubiquitin specific peptidase 14 Source HGNC Symbol Acc HGNC 12612
G11	UPFH0443267	ENST00000493886.5	VCP	ENSG00000165280	valosin containing protein Source HGNC Symbol Acc HGNC 12666
G12	UPFH0306026	ENST00000611155.4	XBP1	ENSG00000100219	X-box binding protein 1 Source HGNC Symbol Acc HGNC 12801
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	UPFH1126608	UPL_HGDC	HGDC	UPL_HGDC	Human Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control

Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
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 Probe RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 µl QuantiNova Probe RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl QN ROX Reference Dye, 1.9 ml Water	208252

*Larger kit sizes available.

The QuantiNova LNA Probe 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.