

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

## Rat Heat Shock Proteins & Chaperones

Cat. no. 249955 UPRN-076ZR

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Aif6	Bag1	Bag3	Bag4	Bag5	Coq8a	Ccs	Cct2	Cct3	Cct4	Cct5	Cct6a
B	Cct7	Cct8	Cryaa	Cryab	Dnajc1	Dnajc2	Dnajc3	Dnajc4	Dnajb1	Dnajb11	Dnajb12	Dnajb13
C	Dnajb4	Dnajb5	Dnajb6	Dnajb8	Dnajb9	Dnajc1	Dnajc10	Dnajc11	Dnajc13	Dnajc14	Dnajc15	Dnajc16
D	Dnajc17	Dnajc18	Dnajc2	Dnajc21	Dnajc22	Dnajc3	Dnajc4	Dnajc5	Dnajc5b	Dnajc5g	Dnajc6	Dnajc7
E	Dnajc8	Dnajc9	Tor1a	Hsf1	Hsf2	Hsf4	Hsp90aa1	Hsp90ab1	Hsp90b1	Hspa12a	Hspa12b	Hspa13
F	Hspa14	Hspa1a	Hspa11	Hspa2	Hspa4	Hspa4l	Hspa5	Hspa9	Hspb1	Hspb2	Hspb3	Hspb6
G	Hspb7	Hspb8	Hspb9	Hspd1	Hspe1	Hsph1	Pfdn1	Pfdn5	Pfdn6	Serpinh1	Sil1	Tcp1
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1113100	ENSRNOT00000029202.5	Atf6	ENSRNOG0000024632	activating transcription factor 6 Source RGD Symbol Acc 1305471
A02	UPFR1065096	ENSRNOT00000011455.6	Bag1	ENSRNOG0000008277	Bcl2 associated athanogene 1 Source RGD Symbol Acc 1305203
A03	UPFR1093465	ENSRNOT00000027616.6	Bag3	ENSRNOG0000020298	Bcl2-associated athanogene 3 Source RGD Symbol Acc 1307794
A04	UPFR1030593	ENSRNOT00000066901.3	Bag4	ENSRNOG0000042560	BCL2-associated athanogene 4 Source MGI Symbol Acc MGI 1914634
A05	UPFR1088439	ENSRNOT00000085594.1	Bag5	ENSRNOG0000058841	BCL2-associated athanogene 5-like 1 Source RGD Symbol Acc 9457021
A06	UPFR1054734	ENSRNOT00000086306.1	Coq8a	ENSRNOG0000043201	coenzyme Q8A Source RGD Symbol Acc 1308245
A07	UPFR1035526	ENSRNOT00000073983.2	Ccs	ENSRNOG0000047816	copper chaperone for superoxide dismutase Source RGD Symbol Acc 620403
A08	UPFR1014516	ENSRNOT00000037946.5	Cct2	ENSRNOG0000021317	chaperonin containing TCP1 subunit 2 Source RGD Symbol Acc 1359143
A09	UPFR1097743	ENSRNOT00000025824.6	Cct3	ENSRNOG0000019090	chaperonin containing TCP1 subunit 3 Source RGD Symbol Acc 735038
A10	UPFR1105932	ENSRNOT00000012847.3	Cct4	ENSRNOG0000009642	chaperonin containing TCP1 subunit 4 Source RGD Symbol Acc 727937
A11	UPFR1070717	ENSRNOT00000015886.6	Cct5	ENSRNOG0000011632	chaperonin containing TCP1 subunit 5 Source RGD Symbol Acc 735161
A12	UPFR1058242	ENSRNOT00000001227.7	Cct6a	ENSRNOG0000000923	chaperonin containing TCP1 subunit 6A Source RGD Symbol Acc 1304763
B01	UPFR1021131	ENSRNOT00000021030.5	Cct7	ENSRNOG0000015630	chaperonin containing TCP1 subunit 7 Source RGD Symbol Acc 1306422
B02	UPFR1051988	ENSRNOT00000002169.6	Cct8	ENSRNOG0000001592	chaperonin containing TCP1 subunit 8 Source RGD Symbol Acc 1305452
B03	UPFR1122088	ENSRNOT00000071248.2	Cryaa	ENSRNOG0000047175	crystallin, alpha A Source RGD Symbol Acc 2413
B04	UPFR1023967	ENSRNOT00000059127.3	Cryab	ENSRNOG0000010524	crystallin, alpha B Source RGD Symbol Acc 2414
B05	UPFR1100143	ENSRNOT00000010061.3	Dnaja1	ENSRNOG0000007029	DnaJ heat shock protein family (Hsp40) member A1 Source RGD Symbol Acc 620942
B06	UPFR1042683	ENSRNOT00000022573.5	Dnaja2	ENSRNOG0000016251	DnaJ heat shock protein family (Hsp40) member A2 Source RGD Symbol Acc 71001
B07	UPFR1067066	ENSRNOT00000085230.1	Dnaja3	ENSRNOG0000003855	DnaJ heat shock protein family (Hsp40) member A3 Source RGD Symbol Acc 1306527
B08	UPFR1038059	ENSRNOT00000017053.4	Dnaja4	ENSRNOG0000012106	DnaJ heat shock protein family (Hsp40) member A4 Source RGD Symbol Acc 1310035
B09	UPFR1097359	ENSRNOT00000079106.1	Dnajb1	ENSRNOG0000021824	DnaJ heat shock protein family (Hsp40) member B1 Source RGD Symbol Acc 1304725
B10	UPFR1027679	ENSRNOT00000002462.6	Dnajb11	ENSRNOG0000001803	DnaJ heat shock protein family (Hsp40) member B11 Source RGD Symbol Acc 1307373
B11	UPFR1027289	ENSRNOT00000044805.3	Dnajb12	ENSRNOG0000030408	DnaJ heat shock protein family (Hsp40) member B12 Source RGD Symbol Acc 1359677
B12	UPFR1053434	ENSRNOT00000024256.5	Dnajb13	ENSRNOG0000017975	DnaJ heat shock protein family (Hsp40) member B13 Source RGD Symbol Acc 1359131
C01	UPFR1094647	ENSRNOT00000086878.1	Dnajb4	ENSRNOG0000013011	DnaJ heat shock protein family (Hsp40) member B4 Source RGD Symbol Acc 1305826
C02	UPFR1061406	ENSRNOT00000000142.7	Dnajb5	ENSRNOG0000000130	DnaJ heat shock protein family (Hsp40) member B5 Source RGD Symbol Acc 1307453
C03	UPFR1048407	ENSRNOT00000035996.3	Dnajb6	ENSRNOG0000010353	DnaJ heat shock protein family (Hsp40) member B6 Source RGD Symbol Acc 1308207
C04	UPFR1063139	ENSRNOT00000050584.4	Dnajb8	ENSRNOG0000034088	DnaJ heat shock protein family (Hsp40) member B8 Source RGD Symbol Acc 1561981
C05	UPFR1035857	ENSRNOT00000005363.5	Dnajb9	ENSRNOG0000004006	DnaJ heat shock protein family (Hsp40) member B9 Source RGD Symbol Acc 3070
C06	UPFR1114589	ENSRNOT00000000162.7	Dnajc1	ENSRNOG0000000150	DnaJ heat shock protein family (Hsp40) member C1 Source RGD Symbol Acc 2322144
C07	UPFR1088801	ENSRNOT00000009839.4	Dnajc10	ENSRNOG0000006803	DnaJ heat shock protein family (Hsp40) member C10 Source RGD Symbol Acc 1307813
C08	UPFR1053131	ENSRNOT00000011960.6	Dnajc11	ENSRNOG0000008802	DnaJ heat shock protein family (Hsp40) member C11 Source RGD Symbol Acc 1307731
C09	UPFR1061240	ENSRNOT00000015344.7	Dnajc13	ENSRNOG0000011491	DnaJ heat shock protein family (Hsp40) member C13 Source RGD Symbol Acc 1308046
C10	UPFR1058926	ENSRNOT00000037332.3	Dnajc14	ENSRNOG0000006844	DnaJ heat shock protein family (Hsp40) member C14 Source RGD Symbol Acc 620489
		ENSRNOT000000		ENSRNOG00	DnaJ heat shock protein family (Hsp40) member C15 Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1022669	012530.5	Dnajc15	000009063	1307154
C12	UPFR1089999	ENSRNOT00000 017247.4	Dnajc16	ENSRNOG00 000012503	DnaJ heat shock protein family (Hsp40) member C16 Source RGD Symbol Acc 1359395
D01	UPFR1076786	ENSRNOT00000 016692.7	Dnajc17	ENSRNOG00 000012368	DnaJ heat shock protein family (Hsp40) member C17 Source RGD Symbol Acc 1308015
D02	UPFR1059946	ENSRNOT00000 027194.6	Dnajc18	ENSRNOG00 000019995	DnaJ heat shock protein family (Hsp40) member C18 Source RGD Symbol Acc 1310237
D03	UPFR1104557	ENSRNOT00000 016909.7	Dnajc2	ENSRNOG00 000012392	DnaJ heat shock protein family (Hsp40) member C2 Source RGD Symbol Acc 620524
D04	UPFR1036018	ENSRNOT00000 024218.6	Dnajc21	ENSRNOG00 000017876	DnaJ heat shock protein family (Hsp40) member C21 Source RGD Symbol Acc 621729
D05	UPFR1083385	ENSRNOT00000 087932.1	Dnajc22	ENSRNOG00 000053498	DnaJ heat shock protein family (Hsp40) member C22 Source RGD Symbol Acc 1311098
D06	UPFR1032628	ENSRNOT00000 014182.5	Dnajc3	ENSRNOG00 000010352	DnaJ heat shock protein family (Hsp40) member C3 Source RGD Symbol Acc 708518
D07	UPFR1062488	ENSRNOT00000 028731.5	Dnajc4	ENSRNOG00 000043060	DnaJ heat shock protein family (Hsp40) member C4 Source RGD Symbol Acc 1308693
D08	UPFR1111951	ENSRNOT00000 020581.3	Dnajc5	ENSRNOG00 000015202	DnaJ heat shock protein family (Hsp40) member C5 Source RGD Symbol Acc 620516
D09	UPFR1058066	ENSRNOT00000 017387.5	Dnajc5b	ENSRNOG00 000012851	DnaJ heat shock protein family (Hsp40) member C5 beta Source RGD Symbol Acc 1562486
D10	UPFR1080821	ENSRNOT00000 031244.5	Dnajc5g	ENSRNOG00 000026578	DnaJ heat shock protein family (Hsp40) member C5 gamma Source RGD Symbol Acc 1307426
D11	UPFR1096258	ENSRNOT00000 086259.1	Dnajc6	ENSRNOG00 000052887	DnaJ heat shock protein family (Hsp40) member C6 Source RGD Symbol Acc 1309900
D12	UPFR1018382	ENSRNOT00000 024321.6	Dnajc7	ENSRNOG00 000017781	DnaJ heat shock protein family (Hsp40) member C7 Source RGD Symbol Acc 1303226
E01	UPFR1093146	ENSRNOT00000 089852.1	Dnajc8	ENSRNOG00 000013255	DnaJ heat shock protein family (Hsp40) member C8 Source RGD Symbol Acc 1306024
E02	UPFR1059752	ENSRNOT00000 009009.5	Dnajc9	ENSRNOG00 000006619	DnaJ heat shock protein family (Hsp40) member C9 Source RGD Symbol Acc 1305009
E03	UPFR1093419	ENSRNOT00000 064660.3	Tor1a	ENSRNOG00 000006894	torsin family 1, member A Source RGD Symbol Acc 628863
E04	UPFR1025762	ENSRNOT00000 050108.3	Hsf1	ENSRNOG00 000021732	heat shock transcription factor 1 Source RGD Symbol Acc 620913
E05	UPFR1101311	ENSRNOT00000 001059.4	Hsf2	ENSRNOG00 000008088	heat shock transcription factor 2 Source RGD Symbol Acc 68395
E06	UPFR1053906	ENSRNOT00000 075933.2	Hsf4	ENSRNOG00 000015253	heat shock transcription factor 4 Source RGD Symbol Acc 1310808
E07	UPFR1014170	ENSRNOT00000 086310.1	Hsp90aa1	ENSRNOG00 000059714	heat shock protein 90 alpha family class A member 1 Source RGD Symbol Acc 631409
E08	UPFR1172895	ENSRNOT00000 086986.1	Hsp90ab1	ENSRNOG00 000019834	heat shock protein 90 alpha family class B member 1 Source RGD Symbol Acc 1303075
E09	UPFR1020204	ENSRNOT00000 079731.1	Hsp90b1	ENSRNOG00 000026963	heat shock protein 90 beta family member 1 Source RGD Symbol Acc 1310482
E10	UPFR1116933	ENSRNOT00000 024548.5	Hspa12a	ENSRNOG00 000018019	heat shock protein family A (Hsp70) member 12A Source RGD Symbol Acc 1305531
E11	UPFR1032343	ENSRNOT00000 028856.7	Hspa12b	ENSRNOG00 000021244	heat shock protein family A (Hsp70) member 12B Source RGD Symbol Acc 1312004
E12	UPFR1121462	ENSRNOT00000 081096.1	Hspa13	ENSRNOG00 000060979	heat shock protein family A (Hsp70) member 13 Source RGD Symbol Acc 3775
F01	UPFR1021275	ENSRNOT00000 020854.5	Hspa14	ENSRNOG00 000015212	heat shock protein family A, member 14 Source RGD Symbol Acc 1303296
F02	UPFR1057108	ENSRNOT00000 081924.1	Hspa1a	ENSRNOG00 000050647	heat shock protein family A (Hsp70) member 1B Source RGD Symbol Acc 2840
F03	UPFR1120774	ENSRNOT00000 074223.2	Hspa1l	ENSRNOG00 000047966	heat shock protein family A (Hsp70) member 1 like Source RGD Symbol Acc 1595925
F04	UPFR1042960	ENSRNOT00000 008504.5	Hspa2	ENSRNOG00 000006472	heat shock protein family A member 2 Source RGD Symbol Acc 620664
F05	UPFR1042317	ENSRNOT00000 023628.3	Hspa4	ENSRNOG00 000016596	heat shock protein family A member 4 Source RGD Symbol Acc 628878
F06	UPFR1106328	ENSRNOT00000 015474.6	Hspa4l	ENSRNOG00 000010819	heat shock protein family A (Hsp70) member 4 like Source RGD Symbol Acc 1306528
F07	UPFR1074347	ENSRNOT00000 025067.6	Hspa5	ENSRNOG00 000018294	heat shock protein family A member 5 Source RGD Symbol Acc 2843
F08	UPFR1066449	ENSRNOT00000 026696.6	Hspa9	ENSRNOG00 000019525	heat shock protein family A member 9 Source RGD Symbol Acc 1311806
F09	UPFR1030516	ENSRNOT00000 031555.5	Hspb1	ENSRNOG00 000023546	heat shock protein family B (small) member 1 Source RGD Symbol Acc 61306
F10	UPFR1053177	ENSRNOT00000 013960.2	Hspb2	ENSRNOG00 000010402	heat shock protein family B (small) member 2 Source RGD Symbol Acc 70914

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1095047	ENSRNOT00000014627.3	Hspb3	ENSRNOG0000010992	heat shock protein family B (small) member 3 Source RGD Symbol Acc 68345
F12	UPFR1027616	ENSRNOT00000028401.4	Hspb6	ENSRNOG0000020922	heat shock protein family B (small) member 6 Source RGD Symbol Acc 621554
G01	UPFR1095213	ENSRNOT00000051317.3	Hspb7	ENSRNOG0000029079	heat shock protein family B (small) member 7 Source RGD Symbol Acc 62021
G02	UPFR1103478	ENSRNOT00000039275.3	Hspb8	ENSRNOG0000022392	heat shock protein family B (small) member 8 Source RGD Symbol Acc 71003
G03	UPFR1033263	ENSRNOT00000055248.2	Hspb9	ENSRNOG0000036819	heat shock protein family B (small) member 9 Source RGD Symbol Acc 1309122
G04	UPFR1095647	ENSRNOT00000066589.2	Hspd1	ENSRNOG0000014525	heat shock protein family D member 1 Source RGD Symbol Acc 621314
G05	UPFR1109905	ENSRNOT00000082300.1	Hspe1	ENSRNOG0000051624	heat shock protein family E member 1 Source RGD Symbol Acc 2844
G06	UPFR1059645	ENSRNOT00000001201.7	Hsph1	ENSRNOG0000000902	heat shock protein family H (Hsp110) member 1 Source RGD Symbol Acc 1311609
G07	UPFR1111458	ENSRNOT00000025353.5	Pfdn1	ENSRNOG0000018653	prefoldin subunit 1 Source RGD Symbol Acc 1305603
G08	UPFR1033846	ENSRNOT00000017794.5	Pfdn5	ENSRNOG0000012985	prefoldin subunit 5 Source RGD Symbol Acc 1311436
G09	UPFR1039148	ENSRNOT00000092555.1	Pfdn6	ENSRNOG0000000473	prefoldin subunit 6 Source RGD Symbol Acc 1303006
G10	UPFR1044270	ENSRNOT00000086091.1	Serpinh1	ENSRNOG0000016831	serpin family H member 1 Source RGD Symbol Acc 69302
G11	UPFR1033396	ENSRNOT00000026895.5	Sil1	ENSRNOG0000019826	SIL1 nucleotide exchange factor Source RGD Symbol Acc 735103
G12	UPFR1028029	ENSRNOT00000019531.4	Tcp1	ENSRNOG0000014160	t-complex 1 Source RGD Symbol Acc 3832
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat 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 $\mu$ 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 Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe 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	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l 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.

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