

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

## Mouse Cellular Stress Responses

Cat. no. 249950 SBMM-019ZR

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

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acadsb	Bag1	Calr	Conx	Cat	Cct2	Cct3	Cct4	Cct5	Cct7	Cct8	Ces1g
B	Clu	Cryaa	Cryab	Cyp11α1	Cyp11β2	Cyp17α1	Cyp1α1	Cyp1α2	Cyp1β1	Cyp2c29	Cyp2c38	Cyp2d22
C	Cyp2e1	Cyp2f2	Cyp4α10	Cyp4b1	Cyp7α1	Cyp7b1	Dnajc1	Dnajc2	Dnajc3	Dnajc4	Dnajb1	Dnajb11
D	Dnajb12	Dnajb2	Dnajb4	Dnajb5	Dnajb6	Dnajb9	Dnajc1	Dnajc4	Dnajc5	Dnajc6	Dnajc7	Dnajc8
E	Dnajc9	Ephx2	Fmo1	Fmo4	Fmo5	Gpx1	Gpx2	Gsr	Gstα1	Gstκ1	Gstm1	Gsto1
F	Hmox1	Hmox2	Hopx	Hspa12α	Hspa1α	Hspa11	Hspa2	Hspa4	Hspa5	Hspa8	Hspa9	Hspb1
G	Hspb2	Hspb3	Hspd1	Hspe1	Ppid	Serpinh1	Sod1	Sod2	Sod3	Srl3	Tcp1	Xdh
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	Q1C	Q1C	PPC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0949271	ENSMUST00000 117518.1	Acadsb	ENSMUSG00 000030861	acyl-Coenzyme A dehydrogenase, short/branched chain Source MGI Symbol Acc MGI 1914135
A02	SBM0738052	ENSMUST00000 030125.4	Bag1	ENSMUSG00 000028416	BCL2-associated athanogene 1 Source MGI Symbol Acc MGI 108047
A03	SBM0796075	ENSMUST00000 003912.6	Calr	ENSMUSG00 000003814	calreticulin Source MGI Symbol Acc MGI 88252
A04	SBM0689321	ENSMUST00000 155801.1	Canx	ENSMUSG00 000020368	calnexin Source MGI Symbol Acc MGI 88261
A05	SBM0711514	ENSMUST00000 111168.3	Cat	ENSMUSG00 000027187	catalase Source MGI Symbol Acc MGI 88271
A06	SBM0964436	ENSMUST00000 219036.1	Cct2	ENSMUSG00 000034024	chaperonin containing Tcp1, subunit 2 (beta) Source MGI Symbol Acc MGI 107186
A07	SBM0749494	ENSMUST00000 164166.7	Cct3	ENSMUSG00 000001416	chaperonin containing Tcp1, subunit 3 (gamma) Source MGI Symbol Acc MGI 104708
A08	SBM0703762	ENSMUST00000 173867.7	Cct4	ENSMUSG00 000007739	chaperonin containing Tcp1, subunit 4 (delta) Source MGI Symbol Acc MGI 104689
A09	SBM0809914	ENSMUST00000 161266.1	Cct5	ENSMUSG00 000022234	chaperonin containing Tcp1, subunit 5 (epsilon) Source MGI Symbol Acc MGI 107185
A10	SBM0777639	ENSMUST00000 205096.1	Cct7	ENSMUSG00 000003007	chaperonin containing Tcp1, subunit 7 (eta) Source MGI Symbol Acc MGI 107184
A11	SBM1011953	ENSMUST00000 175977.7	Cct8	ENSMUSG00 000025613	chaperonin containing Tcp1, subunit 8 (theta) Source MGI Symbol Acc MGI 107183
A12	SBM0810558	ENSMUST00000 044602.7	Ces1g	ENSMUSG00 000057074	carboxylesterase 1G Source MGI Symbol Acc MGI 88378
B01	SBM0933901	ENSMUST00000 153460.7	Clu	ENSMUSG00 000022037	clusterin Source MGI Symbol Acc MGI 88423
B02	SBM1041575	ENSMUST00000 019192.7	Cryaa	ENSMUSG00 000024041	crystallin, alpha A Source MGI Symbol Acc MGI 88515
B03	SBM1019697	ENSMUST00000 034562.8	Cryab	ENSMUSG00 000032060	crystallin, alpha B Source MGI Symbol Acc MGI 88516
B04	SBM1025581	ENSMUST00000 034874.13	Cyp11a1	ENSMUSG00 000032323	cytochrome P450, family 11, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88582
B05	SBM0983746	ENSMUST00000 167634.1	Cyp11b2	ENSMUSG00 000022589	cytochrome P450, family 11, subfamily b, polypeptide 2 Source MGI Symbol Acc MGI 88584
B06	SBM0719547	ENSMUST00000 236174.1	Cyp17a1	ENSMUSG00 000003555	cytochrome P450, family 17, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88586
B07	SBM0687229	ENSMUST00000 216433.1	Cyp1a1	ENSMUSG00 000032315	cytochrome P450, family 1, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88588
B08	SBM0864852	ENSMUST00000 034860.4	Cyp1a2	ENSMUSG00 000032310	cytochrome P450, family 1, subfamily a, polypeptide 2 Source MGI Symbol Acc MGI 88589
B09	SBM0735361	ENSMUST00000 234927.1	Cyp1b1	ENSMUSG00 000024087	cytochrome P450, family 1, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 88590
B10	SBM0759111	ENSMUST00000 176624.7	Cyp2c29	ENSMUSG00 000003053	cytochrome P450, family 2, subfamily c, polypeptide 29 Source MGI Symbol Acc MGI 103238
B11	SBM1048013	ENSMUST00000 035488.2	Cyp2c38	ENSMUSG00 000032808	cytochrome P450, family 2, subfamily c, polypeptide 38 Source MGI Symbol Acc MGI 1306819
B12	SBM0892868	ENSMUST00000 228986.1	Cyp2d22	ENSMUSG00 000061740	cytochrome P450, family 2, subfamily d, polypeptide 22 Source MGI Symbol Acc MGI 1929474
C01	SBM1037941	ENSMUST00000 209253.1	Cyp2e1	ENSMUSG00 000025479	cytochrome P450, family 2, subfamily e, polypeptide 1 Source MGI Symbol Acc MGI 88607
C02	SBM0712875	ENSMUST00000 206552.1	Cyp2f2	ENSMUSG00 000052974	cytochrome P450, family 2, subfamily f, polypeptide 2 Source MGI Symbol Acc MGI 88608
C03	SBM0792650	ENSMUST00000 058785.9	Cyp4a10	ENSMUSG00 000066072	cytochrome P450, family 4, subfamily a, polypeptide 10 Source MGI Symbol Acc MGI 88611
C04	SBM0839189	ENSMUST00000 143237.1	Cyp4b1	ENSMUSG00 000028713	cytochrome P450, family 4, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 103225
C05	SBM0922584	ENSMUST00000 147346.1	Cyp7a1	ENSMUSG00 000028240	cytochrome P450, family 7, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 106091
C06	SBM0824492	ENSMUST00000 035625.6	Cyp7b1	ENSMUSG00 000039519	cytochrome P450, family 7, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 104978
C07	SBM0967006	ENSMUST00000 125442.7	Dnaja1	ENSMUSG00 000028410	DnaJ heat shock protein family (Hsp40) member A1 Source MGI Symbol Acc MGI 1270129
C08	SBM1034568	ENSMUST00000 034138.6	Dnaja2	ENSMUSG00 000031701	DnaJ heat shock protein family (Hsp40) member A2 Source MGI Symbol Acc MGI 1931882
C09	SBM1005864	ENSMUST00000 115854.3	Dnaja3	ENSMUSG00 000004069	DnaJ heat shock protein family (Hsp40) member A3 Source MGI Symbol Acc MGI 1933786
C10	SBM1064089	ENSMUST00000 070070.7	Dnaja4	ENSMUSG00 000032285	DnaJ heat shock protein family (Hsp40) member A4 Source MGI Symbol Acc MGI 1927638
		ENSMUST00000		ENSMUSG00	DnaJ heat shock protein family (Hsp40) member B1 Source MGI Symbol Acc

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
C11	SBM0961660	005620.9	Dnajb1	ENSMUSG000005483	MGI 1931874
C12	SBM0727604	ENSMUST0000004574.13	Dnajb11	ENSMUSG000004460	DnaJ heat shock protein family (Hsp40) member B11 Source MGI Symbol Acc MGI 1915088
D01	SBM0856406	ENSMUST00000020309.6	Dnajb12	ENSMUSG0000020109	DnaJ heat shock protein family (Hsp40) member B12 Source MGI Symbol Acc MGI 1931881
D02	SBM0708068	ENSMUST00000055223.13	Dnajb2	ENSMUSG0000026203	DnaJ heat shock protein family (Hsp40) member B2 Source MGI Symbol Acc MGI 1928739
D03	SBM0687085	ENSMUST00000050073.12	Dnajb4	ENSMUSG0000028035	DnaJ heat shock protein family (Hsp40) member B4 Source MGI Symbol Acc MGI 1914285
D04	SBM1058796	ENSMUST000000107973.2	Dnajb5	ENSMUSG0000036052	DnaJ heat shock protein family (Hsp40) member B5 Source MGI Symbol Acc MGI 1930018
D05	SBM1054782	ENSMUST000000012734.9	Dnajb6	ENSMUSG0000029131	DnaJ heat shock protein family (Hsp40) member B6 Source MGI Symbol Acc MGI 1344381
D06	SBM0795008	ENSMUST000000015049.4	Dnajb9	ENSMUSG0000014905	DnaJ heat shock protein family (Hsp40) member B9 Source MGI Symbol Acc MGI 1351618
D07	SBM0726514	ENSMUST000000163130.7	Dnajc1	ENSMUSG0000026740	DnaJ heat shock protein family (Hsp40) member C1 Source MGI Symbol Acc MGI 103268
D08	SBM0875842	ENSMUST000000179118.1	Dnajc4	ENSMUSG0000024963	DnaJ heat shock protein family (Hsp40) member C4 Source MGI Symbol Acc MGI 1927346
D09	SBM0892808	ENSMUST000000152578.7	Dnajc5	ENSMUSG0000000826	DnaJ heat shock protein family (Hsp40) member C5 Source MGI Symbol Acc MGI 892995
D10	SBM0788298	ENSMUST000000149047.7	Dnajc6	ENSMUSG0000028528	DnaJ heat shock protein family (Hsp40) member C6 Source MGI Symbol Acc MGI 1919935
D11	SBM0743783	ENSMUST000000154972.7	Dnajc7	ENSMUSG0000014195	DnaJ heat shock protein family (Hsp40) member C7 Source MGI Symbol Acc MGI 1928373
D12	SBM0746465	ENSMUST000000105940.9	Dnajc8	ENSMUSG0000054405	DnaJ heat shock protein family (Hsp40) member C8 Source MGI Symbol Acc MGI 1915848
E01	SBM0929234	ENSMUST000000223889.1	Dnajc9	ENSMUSG0000021811	DnaJ heat shock protein family (Hsp40) member C9 Source MGI Symbol Acc MGI 1915326
E02	SBM1053432	ENSMUST000000225309.1	Ephx2	ENSMUSG000002040	epoxide hydrolase 2, cytoplasmic Source MGI Symbol Acc MGI 99500
E03	SBM0866045	ENSMUST000000131058.7	Fmo1	ENSMUSG0000040181	flavin containing monooxygenase 1 Source MGI Symbol Acc MGI 1310002
E04	SBM0807543	ENSMUST000000111525.7	Fmo4	ENSMUSG0000026692	flavin containing monooxygenase 4 Source MGI Symbol Acc MGI 2429497
E05	SBM0814021	ENSMUST000000107049.1	Fmo5	ENSMUSG0000028088	flavin containing monooxygenase 5 Source MGI Symbol Acc MGI 1310004
E06	SBM0858533	ENSMUST000000082429.6	Gpx1	ENSMUSG0000063856	glutathione peroxidase 1 Source MGI Symbol Acc MGI 104887
E07	SBM0899268	ENSMUST000000082431.3	Gpx2	ENSMUSG0000042808	glutathione peroxidase 2 Source MGI Symbol Acc MGI 106609
E08	SBM0942303	ENSMUST000000033992.8	Gsr	ENSMUSG0000031584	glutathione reductase Source MGI Symbol Acc MGI 95804
E09	SBM0760940	ENSMUST000000098537.3	Gsta1	ENSMUSG0000074183	glutathione S-transferase, alpha 1 (Ya) Source MGI Symbol Acc MGI 1095417
E10	SBM0975188	ENSMUST000000031897.7	Gstk1	ENSMUSG0000029864	glutathione S-transferase kappa 1 Source MGI Symbol Acc MGI 1923513
E11	SBM1066973	ENSMUST000000126593.2	Gstm1	ENSMUSG0000058135	glutathione S-transferase, mu 1 Source MGI Symbol Acc MGI 95860
E12	SBM0969929	ENSMUST000000236902.1	Gsto1	ENSMUSG0000025068	glutathione S-transferase omega 1 Source MGI Symbol Acc MGI 1342273
F01	SBM0936413	ENSMUST000000005548.7	Hmox1	ENSMUSG000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
F02	SBM0826858	ENSMUST000000120232.7	Hmox2	ENSMUSG000004070	heme oxygenase 2 Source MGI Symbol Acc MGI 109373
F03	SBM0833276	ENSMUST000000120827.8	Hopx	ENSMUSG0000059325	HOP homeobox Source MGI Symbol Acc MGI 1916782
F04	SBM0966719	ENSMUST000000236429.1	Hspa12a	ENSMUSG0000025092	heat shock protein 12A Source MGI Symbol Acc MGI 1920692
F05	SBM0945329	ENSMUST000000087328.3	Hspa1a	ENSMUSG0000091971	heat shock protein 1A Source MGI Symbol Acc MGI 96244
F06	SBM0763260	ENSMUST000000007248.4	Hspa1l	ENSMUSG000007033	heat shock protein 1-like Source MGI Symbol Acc MGI 96231
F07	SBM0946927	ENSMUST000000219555.1	Hspa2	ENSMUSG0000059970	heat shock protein 2 Source MGI Symbol Acc MGI 96243
F08	SBM0909157	ENSMUST000000020630.7	Hspa4	ENSMUSG0000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
F09	SBM1001113	ENSMUST000000145466.1	Hspa5	ENSMUSG0000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
F10	SBM0678268	ENSMUST000000215526.1	Hspa8	ENSMUSG0000015656	heat shock protein 8 Source MGI Symbol Acc MGI 105384

<b>Position</b>	<b>Assay</b>	<b>Name</b>	<b>Symbol</b>	<b>Ensembl ID</b>	<b>Description</b>
F11	SBM0858823	ENSMUST00000 025217.10	Hspa9	ENSMUSG00 000024359	heat shock protein 9 Source MGI Symbol Acc MGI 96245
F12	SBM1021618	ENSMUST00000 005077.6	Hspb1	ENSMUSG00 000004951	heat shock protein 1 Source MGI Symbol Acc MGI 96240
G01	SBM0706659	ENSMUST00000 042790.4	Hspb2	ENSMUSG00 000038086	heat shock protein 2 Source MGI Symbol Acc MGI 1916503
G02	SBM0984939	ENSMUST00000 054650.4	Hspb3	ENSMUSG00 000051456	heat shock protein 3 Source MGI Symbol Acc MGI 1928479
G03	SBM0789113	ENSMUST00000 027123.14	Hspd1	ENSMUSG00 000025980	heat shock protein 1 (chaperonin) Source MGI Symbol Acc MGI 96242
G04	SBM0877393	ENSMUST00000 134628.1	Hspe1	ENSMUSG00 000073676	heat shock protein 1 (chaperonin 10) Source MGI Symbol Acc MGI 104680
G05	SBM0932503	ENSMUST00000 159505.2	Ppid	ENSMUSG00 000027804	peptidylprolyl isomerase D (cyclophilin D) Source MGI Symbol Acc MGI 1914988
G06	SBM0790738	ENSMUST00000 169437.8	Serpinh1	ENSMUSG00 000070436	serine (or cysteine) peptidase inhibitor, clade H, member 1 Source MGI Symbol Acc MGI 88283
G07	SBM0946306	ENSMUST00000 023707.10	Sod1	ENSMUSG00 000022982	superoxide dismutase 1, soluble Source MGI Symbol Acc MGI 98351
G08	SBM1063571	ENSMUST00000 233791.1	Sod2	ENSMUSG00 000066818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352
G09	SBM1072491	ENSMUST00000 101208.5	Sod3	ENSMUSG00 000072941	superoxide dismutase 3, extracellular Source MGI Symbol Acc MGI 103181
G10	SBM1065380	ENSMUST00000 163382.1	St13	ENSMUSG00 000022403	suppression of tumorigenicity 13 Source MGI Symbol Acc MGI 1917606
G11	SBM0884405	ENSMUST00000 151715.1	Tcp1	ENSMUSG00 000068039	t-complex protein 1 Source MGI Symbol Acc MGI 98535
G12	SBM1090997	ENSMUST00000 233621.1	Xdh	ENSMUSG00 000024066	xanthine dehydrogenase Source MGI Symbol Acc MGI 98973
H01	SBM1220560	ENSMUST00000 100497.10	Actb	ENSMUSG00 000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000 102476.4	B2m	ENSMUSG00 000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000 117757.8	Gapdh	ENSMUSG00 000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000 026613.13	Gusb	ENSMUSG00 000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000 166469.7	Hsp90ab1	ENSMUSG00 000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	SBM1218554	Sybr_MGDC	MGDC	Sybr_MGDC	Mouse 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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