

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

## Mouse Cellular Stress Responses

Cat. no. 249950 SBMM-019ZA

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	Acad5b	Bag1	Calr	Canx	Cat	Cct2	Cct3	Cct4	Cct5	Cct7	Cct8	Ces1g
B	Clu	Cryaa	Cryab	Cyp11a1	Cyp11b2	Cyp17a1	Cyp1a1	Cyp1a2	Cyp1b1	Cyp2c29	Cyp2c38	Cyp2d22
C	Cyp2e1	Cyp2f2	Cyp4a10	Cyp4b1	Cyp7a1	Cyp7b1	Dnaja1	Dnaja2	Dnaja3	Dnaja4	Dnajb1	Dnajb11
D	Dnajb12	Dnajb2	Dnajb4	Dnajb5	Dnajb6	Dnajb9	Dnajc1	Dnajc4	Dnajc5	Dnajc6	Dnajc7	Dnajc8
E	Dnajc9	Ephx2	Fmo1	Fmo4	Fmo5	Gpx1	Gpx2	Gsr	Gsta1	Gstk1	Gstm1	Gsto1
F	Hmox1	Hmox2	Hopx	Hspa12a	Hspa1a	Hspa1l	Hspa2	Hspa4	Hspa5	Hspa8	Hspa9	Hspb1
G	Hspb2	Hspb3	Hspd1	Hspe1	Ppid	Serpinh1	Sod1	Sod2	Sod3	Stt3	Tcp1	Xdh
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0949271	ENSMUST00000117518.1	Acadsb	ENSMUSG0000030861	acyl-Coenzyme A dehydrogenase, short/branched chain Source MGI Symbol Acc MGI 1914135
A02	SBM0738052	ENSMUST0000030125.4	Bag1	ENSMUSG0000028416	BCL2-associated athanogene 1 Source MGI Symbol Acc MGI 108047
A03	SBM0796075	ENSMUST00000003912.6	Calr	ENSMUSG0000003814	calreticulin Source MGI Symbol Acc MGI 88252
A04	SBM0689321	ENSMUST00000155801.1	Canx	ENSMUSG0000020368	calnexin Source MGI Symbol Acc MGI 88261
A05	SBM0711514	ENSMUST00000111168.3	Cat	ENSMUSG0000027187	catalase Source MGI Symbol Acc MGI 88271
A06	SBM0964436	ENSMUST00000219036.1	Cct2	ENSMUSG0000034024	chaperonin containing Tcp1, subunit 2 (beta) Source MGI Symbol Acc MGI 107186
A07	SBM0749494	ENSMUST00000164166.7	Cct3	ENSMUSG0000001416	chaperonin containing Tcp1, subunit 3 (gamma) Source MGI Symbol Acc MGI 104708
A08	SBM0703762	ENSMUST00000173867.7	Cct4	ENSMUSG0000007739	chaperonin containing Tcp1, subunit 4 (delta) Source MGI Symbol Acc MGI 104689
A09	SBM0809914	ENSMUST00000161266.1	Cct5	ENSMUSG0000022234	chaperonin containing Tcp1, subunit 5 (epsilon) Source MGI Symbol Acc MGI 107185
A10	SBM0777639	ENSMUST00000205096.1	Cct7	ENSMUSG0000030007	chaperonin containing Tcp1, subunit 7 (eta) Source MGI Symbol Acc MGI 107184
A11	SBM1011953	ENSMUST00000175977.7	Cct8	ENSMUSG0000025613	chaperonin containing Tcp1, subunit 8 (theta) Source MGI Symbol Acc MGI 107183
A12	SBM0810558	ENSMUST00000044602.7	Ces1g	ENSMUSG0000057074	carboxylesterase 1G Source MGI Symbol Acc MGI 88378
B01	SBM0933901	ENSMUST00000153460.7	Clu	ENSMUSG0000022037	clusterin Source MGI Symbol Acc MGI 88423
B02	SBM1041575	ENSMUST00000019192.7	Cryaa	ENSMUSG0000024041	crystallin, alpha A Source MGI Symbol Acc MGI 88515
B03	SBM1019697	ENSMUST00000034562.8	Cryab	ENSMUSG0000032060	crystallin, alpha B Source MGI Symbol Acc MGI 88516
B04	SBM1025581	ENSMUST00000034874.13	Cyp11a1	ENSMUSG0000032323	cytochrome P450, family 11, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88582
B05	SBM0983746	ENSMUST00000167634.1	Cyp11b2	ENSMUSG0000022589	cytochrome P450, family 11, subfamily b, polypeptide 2 Source MGI Symbol Acc MGI 88584
B06	SBM0719547	ENSMUST00000236174.1	Cyp17a1	ENSMUSG0000033555	cytochrome P450, family 17, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88586
B07	SBM0687229	ENSMUST00000216433.1	Cyp1a1	ENSMUSG0000032315	cytochrome P450, family 1, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88588
B08	SBM0864852	ENSMUST00000034860.4	Cyp1a2	ENSMUSG0000032310	cytochrome P450, family 1, subfamily a, polypeptide 2 Source MGI Symbol Acc MGI 88589
B09	SBM0735361	ENSMUST00000234927.1	Cyp1b1	ENSMUSG0000024087	cytochrome P450, family 1, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 88590
B10	SBM0759111	ENSMUST00000176624.7	Cyp2c29	ENSMUSG0000003053	cytochrome P450, family 2, subfamily c, polypeptide 29 Source MGI Symbol Acc MGI 103238
B11	SBM1048013	ENSMUST00000035488.2	Cyp2c38	ENSMUSG0000032808	cytochrome P450, family 2, subfamily c, polypeptide 38 Source MGI Symbol Acc MGI 1306819
B12	SBM0892868	ENSMUST00000228986.1	Cyp2d22	ENSMUSG0000061740	cytochrome P450, family 2, subfamily d, polypeptide 22 Source MGI Symbol Acc MGI 1929474
C01	SBM1037941	ENSMUST00000209253.1	Cyp2e1	ENSMUSG0000025479	cytochrome P450, family 2, subfamily e, polypeptide 1 Source MGI Symbol Acc MGI 88607
C02	SBM0712875	ENSMUST00000206552.1	Cyp2f2	ENSMUSG0000052974	cytochrome P450, family 2, subfamily f, polypeptide 2 Source MGI Symbol Acc MGI 88608
C03	SBM0792650	ENSMUST00000058785.9	Cyp4a10	ENSMUSG0000066072	cytochrome P450, family 4, subfamily a, polypeptide 10 Source MGI Symbol Acc MGI 88611
C04	SBM0839189	ENSMUST00000143237.1	Cyp4b1	ENSMUSG0000028713	cytochrome P450, family 4, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 103225
C05	SBM0922584	ENSMUST00000147346.1	Cyp7a1	ENSMUSG0000028240	cytochrome P450, family 7, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 106091
C06	SBM0824492	ENSMUST00000035625.6	Cyp7b1	ENSMUSG0000039519	cytochrome P450, family 7, subfamily b, polypeptide 1 Source MGI Symbol Acc MGI 104978
C07	SBM0967006	ENSMUST00000125442.7	Dnaj1	ENSMUSG0000028410	DnaJ heat shock protein family (Hsp40) member A1 Source MGI Symbol Acc MGI 1270129
C08	SBM1034568	ENSMUST00000034138.6	Dnaj2	ENSMUSG0000031701	DnaJ heat shock protein family (Hsp40) member A2 Source MGI Symbol Acc MGI 1931882
C09	SBM1005864	ENSMUST00000115854.3	Dnaj3	ENSMUSG0000004069	DnaJ heat shock protein family (Hsp40) member A3 Source MGI Symbol Acc MGI 1933786
C10	SBM1064089	ENSMUST00000070070.7	Dnaj4	ENSMUSG0000032285	DnaJ heat shock protein family (Hsp40) member A4 Source MGI Symbol Acc MGI 1927638
		ENSMUST00000000000		ENSMUSG00	DnaJ heat shock protein family (Hsp40) member B1 Source MGI Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0961660	005620.9	Dnajb1	000005483	MGI 1931874
C12	SBM0727604	ENSMUST0000004574.13	Dnajb11	ENSMUSG0000004460	DnaJ heat shock protein family (Hsp40) member B11 Source MGI Symbol Acc MGI 1915088
D01	SBM0856406	ENSMUST00000020309.6	Dnajb12	ENSMUSG00000020109	DnaJ heat shock protein family (Hsp40) member B12 Source MGI Symbol Acc MGI 1931881
D02	SBM0708068	ENSMUST00000055223.13	Dnajb2	ENSMUSG00000026203	DnaJ heat shock protein family (Hsp40) member B2 Source MGI Symbol Acc MGI 1928739
D03	SBM0687085	ENSMUST00000050073.12	Dnajb4	ENSMUSG00000028035	DnaJ heat shock protein family (Hsp40) member B4 Source MGI Symbol Acc MGI 1914285
D04	SBM1058796	ENSMUST000000107973.2	Dnajb5	ENSMUSG00000036052	DnaJ heat shock protein family (Hsp40) member B5 Source MGI Symbol Acc MGI 1930018
D05	SBM1054782	ENSMUST00000012734.9	Dnajb6	ENSMUSG00000029131	DnaJ heat shock protein family (Hsp40) member B6 Source MGI Symbol Acc MGI 1344381
D06	SBM0795008	ENSMUST00000015049.4	Dnajb9	ENSMUSG00000014905	DnaJ heat shock protein family (Hsp40) member B9 Source MGI Symbol Acc MGI 1351618
D07	SBM0726514	ENSMUST000000163130.7	Dnajc1	ENSMUSG00000026740	DnaJ heat shock protein family (Hsp40) member C1 Source MGI Symbol Acc MGI 103268
D08	SBM0875842	ENSMUST000000179118.1	Dnajc4	ENSMUSG00000024963	DnaJ heat shock protein family (Hsp40) member C4 Source MGI Symbol Acc MGI 1927346
D09	SBM0892808	ENSMUST000000152578.7	Dnajc5	ENSMUSG00000000826	DnaJ heat shock protein family (Hsp40) member C5 Source MGI Symbol Acc MGI 892995
D10	SBM0788298	ENSMUST000000149047.7	Dnajc6	ENSMUSG00000028528	DnaJ heat shock protein family (Hsp40) member C6 Source MGI Symbol Acc MGI 1919935
D11	SBM0743783	ENSMUST000000154972.7	Dnajc7	ENSMUSG00000014195	DnaJ heat shock protein family (Hsp40) member C7 Source MGI Symbol Acc MGI 1928373
D12	SBM0746465	ENSMUST000000105940.9	Dnajc8	ENSMUSG00000054405	DnaJ heat shock protein family (Hsp40) member C8 Source MGI Symbol Acc MGI 1915848
E01	SBM0929234	ENSMUST000000223889.1	Dnajc9	ENSMUSG00000021811	DnaJ heat shock protein family (Hsp40) member C9 Source MGI Symbol Acc MGI 1915326
E02	SBM1053432	ENSMUST000000225309.1	Ephx2	ENSMUSG00000022040	epoxide hydrolase 2, cytoplasmic Source MGI Symbol Acc MGI 99500
E03	SBM0866045	ENSMUST000000131058.7	Fmo1	ENSMUSG00000040181	flavin containing monooxygenase 1 Source MGI Symbol Acc MGI 1310002
E04	SBM0807543	ENSMUST000000111525.7	Fmo4	ENSMUSG00000026692	flavin containing monooxygenase 4 Source MGI Symbol Acc MGI 2429497
E05	SBM0814021	ENSMUST000000107049.1	Fmo5	ENSMUSG00000028088	flavin containing monooxygenase 5 Source MGI Symbol Acc MGI 1310004
E06	SBM0858533	ENSMUST000000082429.6	Gpx1	ENSMUSG00000063856	glutathione peroxidase 1 Source MGI Symbol Acc MGI 104887
E07	SBM0899268	ENSMUST000000082431.3	Gpx2	ENSMUSG00000042808	glutathione peroxidase 2 Source MGI Symbol Acc MGI 106609
E08	SBM0942303	ENSMUST000000033992.8	Gsr	ENSMUSG00000031584	glutathione reductase Source MGI Symbol Acc MGI 95804
E09	SBM0760940	ENSMUST000000098537.3	Gsta1	ENSMUSG00000074183	glutathione S-transferase, alpha 1 (Ya) Source MGI Symbol Acc MGI 1095417
E10	SBM0975188	ENSMUST000000031897.7	Gstk1	ENSMUSG00000029864	glutathione S-transferase kappa 1 Source MGI Symbol Acc MGI 1923513
E11	SBM1066973	ENSMUST000000126593.2	Gstm1	ENSMUSG00000058135	glutathione S-transferase, mu 1 Source MGI Symbol Acc MGI 95860
E12	SBM0969929	ENSMUST000000236902.1	Gsto1	ENSMUSG00000025068	glutathione S-transferase omega 1 Source MGI Symbol Acc MGI 1342273
F01	SBM0936413	ENSMUST000000005548.7	Hmx1	ENSMUSG00000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
F02	SBM0826858	ENSMUST000000120232.7	Hmx2	ENSMUSG00000004070	heme oxygenase 2 Source MGI Symbol Acc MGI 109373
F03	SBM0833276	ENSMUST000000120827.8	Hopx	ENSMUSG00000059325	HOP homeobox Source MGI Symbol Acc MGI 1916782
F04	SBM0966719	ENSMUST000000236429.1	Hspa12a	ENSMUSG00000025092	heat shock protein 12A Source MGI Symbol Acc MGI 1920692
F05	SBM0945329	ENSMUST000000087328.3	Hspa1a	ENSMUSG00000091971	heat shock protein 1A Source MGI Symbol Acc MGI 96244
F06	SBM0763260	ENSMUST000000007248.4	Hspa1l	ENSMUSG00000007033	heat shock protein 1-like Source MGI Symbol Acc MGI 96231
F07	SBM0946927	ENSMUST000000219555.1	Hspa2	ENSMUSG00000059970	heat shock protein 2 Source MGI Symbol Acc MGI 96243
F08	SBM0909157	ENSMUST000000020630.7	Hspa4	ENSMUSG00000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
F09	SBM1001113	ENSMUST000000145466.1	Hspa5	ENSMUSG00000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
F10	SBM0678268	ENSMUST000000215526.1	Hspa8	ENSMUSG00000015656	heat shock protein 8 Source MGI Symbol Acc MGI 105384

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0858823	ENSMUST00000025217.10	Hspa9	ENSMUSG0000024359	heat shock protein 9 Source MGI Symbol Acc MGI 96245
F12	SBM1021618	ENSMUST00000005077.6	Hspb1	ENSMUSG0000004951	heat shock protein 1 Source MGI Symbol Acc MGI 96240
G01	SBM0706659	ENSMUST00000042790.4	Hspb2	ENSMUSG0000038086	heat shock protein 2 Source MGI Symbol Acc MGI 1916503
G02	SBM0984939	ENSMUST00000054650.4	Hspb3	ENSMUSG0000051456	heat shock protein 3 Source MGI Symbol Acc MGI 1928479
G03	SBM0789113	ENSMUST00000027123.14	Hspd1	ENSMUSG0000025980	heat shock protein 1 (chaperonin) Source MGI Symbol Acc MGI 96242
G04	SBM0877393	ENSMUST000000134628.1	Hspe1	ENSMUSG0000073676	heat shock protein 1 (chaperonin 10) Source MGI Symbol Acc MGI 104680
G05	SBM0932503	ENSMUST000000159505.2	Ppid	ENSMUSG0000027804	peptidylprolyl isomerase D (cyclophilin D) Source MGI Symbol Acc MGI 1914988
G06	SBM0790738	ENSMUST000000169437.8	Serpinh1	ENSMUSG0000070436	serine (or cysteine) peptidase inhibitor, clade H, member 1 Source MGI Symbol Acc MGI 88283
G07	SBM0946306	ENSMUST00000023707.10	Sod1	ENSMUSG0000022982	superoxide dismutase 1, soluble Source MGI Symbol Acc MGI 98351
G08	SBM1063571	ENSMUST000000233791.1	Sod2	ENSMUSG0000006818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352
G09	SBM1072491	ENSMUST000000101208.5	Sod3	ENSMUSG0000072941	superoxide dismutase 3, extracellular Source MGI Symbol Acc MGI 103181
G10	SBM1065380	ENSMUST000000163382.1	St13	ENSMUSG0000022403	suppression of tumorigenicity 13 Source MGI Symbol Acc MGI 1917606
G11	SBM0884405	ENSMUST000000151715.1	Tcp1	ENSMUSG0000068039	t-complex protein 1 Source MGI Symbol Acc MGI 98535
G12	SBM1090997	ENSMUST000000233621.1	Xdh	ENSMUSG0000024066	xanthine dehydrogenase Source MGI Symbol Acc MGI 98973
H01	SBM1220560	ENSMUST000000100497.10	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST000000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST000000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST000000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST000000166469.7	Hsp90ab1	ENSMUSG0000023944	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 $\mu$ 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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