

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

Mouse Unfolded Protein Response

Cat. no. 249950 SBMM-089ZA

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Amfr	Aif4	Aif6	Aif6b	Atxn3	Bax	Calr	Canx	Cct4	Cct7	Cebpb	Creb3
B	Creb3l3	Ddit3	Derl1	Derl2	Dnajb2	Dnajb9	Dnajc10	Dnajc3	Dnajc4	Edem1	Edem3	Elf2a
C	Elf2ak3	Em1	Em2	Ero1l	Ero1lb	Erp44	Fbxo6	Ganab	Ganc	Selenos	Herpud1	Hspa1l
D	Hspa2	Hspa4	Hspa4l	Hspa5	Hspb9	Hsph1	Htra2	Htra4	Insig1	Insig2	Manf	Mapk10
E	Mapk8	Mapk9	Mbtps1	Mbtps2	Nploc4	Nucb1	Os9	Pdia3	Pfdn2	Pfdn5	Ppia	Ppp1r15b
F	Prkash	Rnf139	Rnf5	Rpn1	Scap	Sec62	Sec63	Sel1l	Serp1	Sil1	Srebf1	Srebf2
G	Syvn1	Tcp1	Tor1a	Ube2g2	Ube2j2	Ubxn4	Ufd1	Uggt1	Uggt2	Usp14	Vcp	Xbp1
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	SBM0747733	ENSMUST00000053766.13	Amfr	ENSMUSG0000031751	autocrine motility factor receptor Source MGI Symbol Acc MGI 1345634
A02	SBM1055409	ENSMUST00000230434.1	Atf4	ENSMUSG0000042406	activating transcription factor 4 Source MGI Symbol Acc MGI 88096
A03	SBM0817114	ENSMUST00000027974.6	Atf6	ENSMUSG0000026663	activating transcription factor 6 Source MGI Symbol Acc MGI 1926157
A04	SBM1090753	ENSMUST00000015605.14	Atf6b	ENSMUSG0000015461	activating transcription factor 6 beta Source MGI Symbol Acc MGI 105121
A05	SBM0959195	ENSMUST000000161011.7	Atxn3	ENSMUSG0000021189	ataxin 3 Source MGI Symbol Acc MGI 1099442
A06	SBM0740166	ENSMUST000000211615.1	Bax	ENSMUSG0000003873	BCL2-associated X protein Source MGI Symbol Acc MGI 99702
A07	SBM0796075	ENSMUST00000003912.6	Calr	ENSMUSG0000003814	calreticulin Source MGI Symbol Acc MGI 88252
A08	SBM0689321	ENSMUST000000155801.1	Canx	ENSMUSG0000020368	calnexin Source MGI Symbol Acc MGI 88261
A09	SBM0703762	ENSMUST000000173867.7	Cct4	ENSMUSG0000007739	chaperonin containing Tcp1, subunit 4 (delta) Source MGI Symbol Acc MGI 104689
A10	SBM0777639	ENSMUST000000205096.1	Cct7	ENSMUSG0000030007	chaperonin containing Tcp1, subunit 7 (eta) Source MGI Symbol Acc MGI 107184
A11	SBM0682459	ENSMUST000000070642.3	Cebpb	ENSMUSG0000056501	CCAAT/enhancer binding protein (C/EBP), beta Source MGI Symbol Acc MGI 88373
A12	SBM0997266	ENSMUST000000167751.1	Creb3	ENSMUSG0000028466	cAMP responsive element binding protein 3 Source MGI Symbol Acc MGI 99946
B01	SBM0858739	ENSMUST000000117422.1	Creb3l3	ENSMUSG0000035041	cAMP responsive element binding protein 3-like 3 Source MGI Symbol Acc MGI 2384786
B02	SBM0724182	ENSMUST000000139091.1	Ddit3	ENSMUSG0000025408	DNA-damage inducible transcript 3 Source MGI Symbol Acc MGI 109247
B03	SBM1046337	ENSMUST000000226911.1	Der1	ENSMUSG0000022365	Der1-like domain family, member 1 Source MGI Symbol Acc MGI 1915069
B04	SBM0922648	ENSMUST000000108523.9	Der12	ENSMUSG0000018442	Der1-like domain family, member 2 Source MGI Symbol Acc MGI 2151483
B05	SBM0708068	ENSMUST000000055223.13	Dnajb2	ENSMUSG0000026203	DnaJ heat shock protein family (Hsp40) member B2 Source MGI Symbol Acc MGI 1928739
B06	SBM0795008	ENSMUST000000015049.4	Dnajb9	ENSMUSG0000014905	DnaJ heat shock protein family (Hsp40) member B9 Source MGI Symbol Acc MGI 1351618
B07	SBM0965072	ENSMUST000000125000.7	Dnajc10	ENSMUSG0000027006	DnaJ heat shock protein family (Hsp40) member C10 Source MGI Symbol Acc MGI 1914111
B08	SBM1063097	ENSMUST000000022734.8	Dnajc3	ENSMUSG0000022136	DnaJ heat shock protein family (Hsp40) member C3 Source MGI Symbol Acc MGI 107373
B09	SBM0875842	ENSMUST000000179118.1	Dnajc4	ENSMUSG0000024963	DnaJ heat shock protein family (Hsp40) member C4 Source MGI Symbol Acc MGI 1927346
B10	SBM0885871	ENSMUST000000203469.1	Edem1	ENSMUSG0000030104	ER degradation enhancer, mannosidase alpha-like 1 Source MGI Symbol Acc MGI 2180139
B11	SBM0883953	ENSMUST000000191070.1	Edem3	ENSMUSG0000043019	ER degradation enhancer, mannosidase alpha-like 3 Source MGI Symbol Acc MGI 1914217
B12	SBM0974327	ENSMUST000000135876.7	Eif2a	ENSMUSG0000027810	eukaryotic translation initiation factor 2A Source MGI Symbol Acc MGI 1098684
C01	SBM0754072	ENSMUST000000034093.14	Eif2ak3	ENSMUSG0000031668	eukaryotic translation initiation factor 2 alpha kinase 3 Source MGI Symbol Acc MGI 1341830
C02	SBM0697402	ENSMUST000000106800.1	Ern1	ENSMUSG0000020715	endoplasmic reticulum (ER) to nucleus signalling 1 Source MGI Symbol Acc MGI 1930134
C03	SBM1063179	ENSMUST000000206198.1	Ern2	ENSMUSG0000030866	endoplasmic reticulum (ER) to nucleus signalling 2 Source MGI Symbol Acc MGI 1349436
C04	SBM0910633	ENSMUST000000022378.8	Ero1l	ENSMUSG0000021831	ERO1-like (S. cerevisiae) Source MGI Symbol Acc MGI 1354385
C05	SBM1086901	ENSMUST000000221560.1	Ero1lb	ENSMUSG0000057069	ERO1-like beta (S. cerevisiae) Source MGI Symbol Acc MGI 1914725
C06	SBM0711940	ENSMUST000000030028.4	Erp44	ENSMUSG0000028343	endoplasmic reticulum protein 44 Source MGI Symbol Acc MGI 1923549
C07	SBM0732827	ENSMUST000000030858.13	Fbxo6	ENSMUSG0000055401	F-box protein 6 Source MGI Symbol Acc MGI 1354743
C08	SBM0815270	ENSMUST000000236563.1	Ganab	ENSMUSG0000071650	alpha glucosidase 2 alpha neutral subunit Source MGI Symbol Acc MGI 1097667
C09	SBM0786598	ENSMUST000000136993.7	Ganc	ENSMUSG0000062646	glucosidase, alpha neutral C Source MGI Symbol Acc MGI 1923301
C10	SBM0799319	ENSMUST000000206044.1	Selenos	ENSMUSG0000075701	selenoprotein S Source MGI Symbol Acc MGI 95994
		ENSMUST000000		ENSMUSG00	homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0746216	161085.7	Herpud1	000031770	domain member 1 Source MGI Symbol Acc MGI 1927406
C12	SBM0763260	ENSMUST00000007248.4	Hspa11	ENSMUSG0000007033	heat shock protein 1-like Source MGI Symbol Acc MGI 96231
D01	SBM0946927	ENSMUST00000219555.1	Hspa2	ENSMUSG00000059970	heat shock protein 2 Source MGI Symbol Acc MGI 96243
D02	SBM0909157	ENSMUST00000020630.7	Hspa4	ENSMUSG00000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
D03	SBM0694050	ENSMUST00000203496.2	Hspa4l	ENSMUSG00000025757	heat shock protein 4 like Source MGI Symbol Acc MGI 107422
D04	SBM1001113	ENSMUST00000145466.1	Hspa5	ENSMUSG00000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
D05	SBM0781477	ENSMUST00000169833.1	Hspb9	ENSMUSG0000017832	heat shock protein, alpha-crystallin-related, B9 Source MGI Symbol Acc MGI 1922732
D06	SBM0936477	ENSMUST00000200805.3	Hsph1	ENSMUSG00000029657	heat shock 105kDa/110kDa protein 1 Source MGI Symbol Acc MGI 105053
D07	SBM0928749	ENSMUST00000089645.12	Htra2	ENSMUSG00000068329	HtrA serine peptidase 2 Source MGI Symbol Acc MGI 1928676
D08	SBM0811402	ENSMUST00000176814.2	Htra4	ENSMUSG00000037406	HtrA serine peptidase 4 Source MGI Symbol Acc MGI 3036260
D09	SBM0759766	ENSMUST00000199728.1	Insig1	ENSMUSG00000045294	insulin induced gene 1 Source MGI Symbol Acc MGI 1916289
D10	SBM0789290	ENSMUST00000071064.12	Insig2	ENSMUSG00000003721	insulin induced gene 2 Source MGI Symbol Acc MGI 1920249
D11	SBM0698687	ENSMUST00000160978.2	Manf	ENSMUSG00000032575	mesencephalic astrocyte-derived neurotrophic factor Source MGI Symbol Acc MGI 1922090
D12	SBM0977079	ENSMUST00000112848.7	Mapk10	ENSMUSG00000046709	mitogen-activated protein kinase 10 Source MGI Symbol Acc MGI 1346863
E01	SBM0984642	ENSMUST00000132379.1	Mapk8	ENSMUSG00000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
E02	SBM1025510	ENSMUST00000144857.7	Mapk9	ENSMUSG00000020366	mitogen-activated protein kinase 9 Source MGI Symbol Acc MGI 1346862
E03	SBM0816312	ENSMUST00000212736.1	Mbtps1	ENSMUSG00000031835	membrane-bound transcription factor peptidase, site 1 Source MGI Symbol Acc MGI 1927235
E04	SBM0976041	ENSMUST00000149249.1	Mbtps2	ENSMUSG00000046873	membrane-bound transcription factor peptidase, site 2 Source MGI Symbol Acc MGI 2444506
E05	SBM0838816	ENSMUST00000044271.14	Nploc4	ENSMUSG00000039703	NPL4 homolog, ubiquitin recognition factor Source MGI Symbol Acc MGI 2679787
E06	SBM0697036	ENSMUST00000211682.1	Nucb1	ENSMUSG00000030824	nucleobindin 1 Source MGI Symbol Acc MGI 97388
E07	SBM0709254	ENSMUST00000218798.1	Os9	ENSMUSG00000040462	amplified in osteosarcoma Source MGI Symbol Acc MGI 1924301
E08	SBM0701989	ENSMUST00000130450.1	Pdia3	ENSMUSG00000027248	protein disulfide isomerase associated 3 Source MGI Symbol Acc MGI 95834
E09	SBM0803955	ENSMUST00000135941.7	Pfdn2	ENSMUSG00000006412	prefoldin 2 Source MGI Symbol Acc MGI 1276111
E10	SBM1086607	ENSMUST00000165717.3	Pfdn5	ENSMUSG0000001289	prefoldin 5 Source MGI Symbol Acc MGI 1928753
E11	SBM0829739	ENSMUST00000213200.1	Ppia	ENSMUSG00000071866	peptidylprolyl isomerase A Source MGI Symbol Acc MGI 97749
E12	SBM0807762	ENSMUST00000052529.3	Ppp1r15b	ENSMUSG00000046062	protein phosphatase 1, regulatory subunit 15B Source MGI Symbol Acc MGI 2444211
F01	SBM0699144	ENSMUST00000003493.8	PrkcsH	ENSMUSG00000003402	protein kinase C substrate 80K-H Source MGI Symbol Acc MGI 107877
F02	SBM0946314	ENSMUST00000036904.6	Rnf139	ENSMUSG00000037075	ring finger protein 139 Source MGI Symbol Acc MGI 1923091
F03	SBM0909167	ENSMUST00000015622.7	Rnf5	ENSMUSG00000015478	ring finger protein 5 Source MGI Symbol Acc MGI 1860076
F04	SBM0763462	ENSMUST00000203813.1	Rpn1	ENSMUSG00000030062	ribophorin I Source MGI Symbol Acc MGI 98084
F05	SBM0895638	ENSMUST00000098350.9	Scap	ENSMUSG00000032485	SREBF chaperone Source MGI Symbol Acc MGI 2135958
F06	SBM1078024	ENSMUST00000191730.1	Sec62	ENSMUSG00000027706	SEC62 homolog (S. cerevisiae) Source MGI Symbol Acc MGI 1916526
F07	SBM0808894	ENSMUST00000105496.1	Sec63	ENSMUSG00000019802	SEC63-like (S. cerevisiae) Source MGI Symbol Acc MGI 2155302
F08	SBM0968519	ENSMUST00000021347.11	Sel1l	ENSMUSG00000020964	sel-1 suppressor of lin-12-like (C. elegans) Source MGI Symbol Acc MGI 1329016
F09	SBM1048900	ENSMUST00000029385.8	Serp1	ENSMUSG00000027808	stress-associated endoplasmic reticulum protein 1 Source MGI Symbol Acc MGI 92638
F10	SBM0927921	ENSMUST00000235619.1	Sil1	ENSMUSG00000024357	endoplasmic reticulum chaperone SIL1 homolog (S. cerevisiae) Source MGI Symbol Acc MGI 1932040

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0984070	ENSMUST00000020846.7	Srebf1	ENSMUSG0000020538	sterol regulatory element binding transcription factor 1 Source MGI Symbol Acc MGI 107606
F12	SBM0762835	ENSMUST00000229336.1	Srebf2	ENSMUSG0000022463	sterol regulatory element binding factor 2 Source MGI Symbol Acc MGI 107585
G01	SBM0913365	ENSMUST00000134667.7	Syvn1	ENSMUSG0000024807	synovial apoptosis inhibitor 1, synoviolin Source MGI Symbol Acc MGI 1921376
G02	SBM0884405	ENSMUST00000151715.1	Tcp1	ENSMUSG0000068039	t-complex protein 1 Source MGI Symbol Acc MGI 98535
G03	SBM1020953	ENSMUST00000123762.1	Tor1a	ENSMUSG0000026849	torsin family 1, member A (torsin A) Source MGI Symbol Acc MGI 1353568
G04	SBM0968203	ENSMUST00000173360.1	Ube2g2	ENSMUSG0000009293	ubiquitin-conjugating enzyme E2G 2 Source MGI Symbol Acc MGI 1343188
G05	SBM0727157	ENSMUST00000118192.7	Ube2j2	ENSMUSG0000023286	ubiquitin-conjugating enzyme E2J 2 Source MGI Symbol Acc MGI 2153608
G06	SBM0861243	ENSMUST00000190736.6	Ubxn4	ENSMUSG0000026353	UBX domain protein 4 Source MGI Symbol Acc MGI 1915062
G07	SBM0796123	ENSMUST00000172013.8	Ufd1	ENSMUSG0000005262	ubiquitin recognition factor in ER-associated degradation 1 Source MGI Symbol Acc MGI 109353
G08	SBM1057502	ENSMUST00000174716.7	Ugg1	ENSMUSG0000037470	UDP-glucose glycoprotein glucosyltransferase 1 Source MGI Symbol Acc MGI 2443162
G09	SBM0878764	ENSMUST00000173391.1	Ugg12	ENSMUSG0000042104	UDP-glucose glycoprotein glucosyltransferase 2 Source MGI Symbol Acc MGI 1913685
G10	SBM0710356	ENSMUST00000116669.1	Usp14	ENSMUSG0000047879	ubiquitin specific peptidase 14 Source MGI Symbol Acc MGI 1928898
G11	SBM1045036	ENSMUST00000154423.1	Vcp	ENSMUSG0000028452	valosin containing protein Source MGI Symbol Acc MGI 99919
G12	SBM0756103	ENSMUST00000145588.1	Xbp1	ENSMUSG0000020484	X-box binding protein 1 Source MGI Symbol Acc MGI 98970
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	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 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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