

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

Mouse Autophagy

Cat. no. 249950 SBMM-084ZA

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	Akt1	Ambra1	App	Atg10	Atg12	Atg16l1	Atg16l2	Atg3	Atg4a	Atg4b	Atg4c	Atg4d
B	Atg5	Atg7	Atg9a	Atg9b	Bad	Bak1	Bax	Bcl2	Bcl2l1	Becn1	Bid	Bnip3
C	Casp3	Casp8	Cdkn1b	Cdkn2a	Cln3	Ctsb	Ctsd	Ctss	Cxcr4	Dapk1	Dram1	Dram2
D	Eif2ak3	Eif4g1	Esr1	Fadd	Fas	Gaa	Gabarap	Gabarapl1	Gabarapl2	Hdac1	Hdac6	Hgs
E	Hsp90aa1	Hspa8	Htt	Irfng	Igf1	Ins2	Irgm1	Lamp1	Map1lc3a	Map1lc3b	Mapk14	Mapk8
F	Mtor	Nfkb1	Npc1	Pik3c3	Pik3cg	Pik3r4	Pikaa1	Pten	Rab24	Rb1	Rgs19	Rps6kb1
G	Snca	Sqstm1	Tgfb1	Tgm2	Tmem74	Tnf	Tnfrsf10	Trp53	Ulk1	Ulk2	Uvrag	Wip1
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	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG0000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
A02	SBM0729652	ENSMUST00000156496.7	Ambra1	ENSMUSG00000040506	autophagy/beclin 1 regulator 1 Source MGI Symbol Acc MGI 2443564
A03	SBM0970132	ENSMUST00000226801.1	App	ENSMUSG00000022892	amyloid beta (A4) precursor protein Source MGI Symbol Acc MGI 88059
A04	SBM0794493	ENSMUST0000022119.5	Atg10	ENSMUSG00000021619	autophagy related 10 Source MGI Symbol Acc MGI 1914045
A05	SBM1008240	ENSMUST0000035648.5	Atg12	ENSMUSG00000032905	autophagy related 12 Source MGI Symbol Acc MGI 1914776
A06	SBM0936237	ENSMUST00000151037.7	Atg16l1	ENSMUSG00000026289	autophagy related 16-like 1 (S. cerevisiae) Source MGI Symbol Acc MGI 1924290
A07	SBM0954786	ENSMUST00000140553.1	Atg16l2	ENSMUSG00000047767	autophagy related 16-like 2 (S. cerevisiae) Source MGI Symbol Acc MGI 1920933
A08	SBM0780376	ENSMUST00000150390.1	Atg3	ENSMUSG00000022663	autophagy related 3 Source MGI Symbol Acc MGI 1915091
A09	SBM1054842	ENSMUST00000153742.1	Atg4a	ENSMUSG00000079418	autophagy related 4A, cysteine peptidase Source MGI Symbol Acc MGI 2147903
A10	SBM0702667	ENSMUST00000187824.6	Atg4b	ENSMUSG00000026280	autophagy related 4B, cysteine peptidase Source MGI Symbol Acc MGI 1913865
A11	SBM0822160	ENSMUST00000180278.1	Atg4c	ENSMUSG00000028550	autophagy related 4C, cysteine peptidase Source MGI Symbol Acc MGI 2651854
A12	SBM0847051	ENSMUST00000065005.4	Atg4d	ENSMUSG00000002820	autophagy related 4D, cysteine peptidase Source MGI Symbol Acc MGI 2444308
B01	SBM0791795	ENSMUST00000217412.1	Atg5	ENSMUSG00000038160	autophagy related 5 Source MGI Symbol Acc MGI 1277186
B02	SBM0712806	ENSMUST00000182428.7	Atg7	ENSMUSG00000030314	autophagy related 7 Source MGI Symbol Acc MGI 1921494
B03	SBM0790549	ENSMUST00000189820.6	Atg9a	ENSMUSG00000033124	autophagy related 9A Source MGI Symbol Acc MGI 2138446
B04	SBM1086339	ENSMUST00000138716.7	Atg9b	ENSMUSG00000038295	autophagy related 9B Source MGI Symbol Acc MGI 2685420
B05	SBM0983531	ENSMUST00000238184.1	Bad	ENSMUSG00000024959	BCL2-associated agonist of cell death Source MGI Symbol Acc MGI 1096330
B06	SBM0828888	ENSMUST00000143158.2	Bak1	ENSMUSG00000057789	BCL2-antagonist/killer 1 Source MGI Symbol Acc MGI 1097161
B07	SBM0740166	ENSMUST00000211615.1	Bax	ENSMUSG00000003873	BCL2-associated X protein Source MGI Symbol Acc MGI 99702
B08	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG00000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
B09	SBM0751583	ENSMUST00000134357.1	Bcl2l1	ENSMUSG00000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
B10	SBM1046634	ENSMUST00000167818.7	Becn1	ENSMUSG00000035086	beclin 1, autophagy related Source MGI Symbol Acc MGI 1891828
B11	SBM0938087	ENSMUST00000160684.7	Bid	ENSMUSG00000004446	BH3 interacting domain death agonist Source MGI Symbol Acc MGI 108093
B12	SBM0840313	ENSMUST00000130500.7	Bnip3	ENSMUSG00000078566	BCL2/adenovirus E1B interacting protein 3 Source MGI Symbol Acc MGI 109326
C01	SBM0732165	ENSMUST00000093517.6	Casp3	ENSMUSG00000031628	caspase 3 Source MGI Symbol Acc MGI 107739
C02	SBM0772558	ENSMUST00000027189.14	Casp8	ENSMUSG00000026029	caspase 8 Source MGI Symbol Acc MGI 1261423
C03	SBM1006924	ENSMUST00000067327.10	Cdkn1b	ENSMUSG00000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
C04	SBM0998051	ENSMUST00000060501.4	Cdkn2a	ENSMUSG00000044303	cyclin dependent kinase inhibitor 2A Source MGI Symbol Acc MGI 104738
C05	SBM0945049	ENSMUST00000150587.7	Cln3	ENSMUSG00000030720	ceroid lipofuscinosis, neuronal 3, juvenile (Batten, Spielmeier-Vogt disease) Source MGI Symbol Acc MGI 107537
C06	SBM0677916	ENSMUST00000225540.1	Ctsb	ENSMUSG00000021939	cathepsin B Source MGI Symbol Acc MGI 88561
C07	SBM0731741	ENSMUST00000151120.8	Ctsd	ENSMUSG00000007891	cathepsin D Source MGI Symbol Acc MGI 88562
C08	SBM0953672	ENSMUST00000015667.8	Ctss	ENSMUSG00000038642	cathepsin S Source MGI Symbol Acc MGI 107341
C09	SBM0923037	ENSMUST00000052172.6	Cxcr4	ENSMUSG00000045382	chemokine (C-X-C motif) receptor 4 Source MGI Symbol Acc MGI 109563
C10	SBM0822721	ENSMUST00000226059.1	Dapk1	ENSMUSG00000021559	death associated protein kinase 1 Source MGI Symbol Acc MGI 1916885
		ENSMUST000000		ENSMUSG000	DNA-damage regulated autophagy modulator 1 Source MGI Symbol Acc MGI

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0721146	020249.1	Dram1	000020057	1918962
C12	SBM0939345	ENSMUST00000121034.7	Dram2	ENSMUSG0000027900	DNA-damage regulated autophagy modulator 2 Source MGI Symbol Acc MGI 1914421
D01	SBM0754072	ENSMUST00000034093.14	Eif2ak3	ENSMUSG00000031668	eukaryotic translation initiation factor 2 alpha kinase 3 Source MGI Symbol Acc MGI 1341830
D02	SBM0687883	ENSMUST00000136713.4	Eif4g1	ENSMUSG0000045983	eukaryotic translation initiation factor 4, gamma 1 Source MGI Symbol Acc MGI 2384784
D03	SBM0745819	ENSMUST00000067086.13	Esr1	ENSMUSG0000019768	estrogen receptor 1 (alpha) Source MGI Symbol Acc MGI 1352467
D04	SBM0895464	ENSMUST00000033394.7	Fadd	ENSMUSG00000031077	Fas (TNFRSF6)-associated via death domain Source MGI Symbol Acc MGI 109324
D05	SBM0856649	ENSMUST00000112472.3	Fas	ENSMUSG0000024778	Fas (TNF receptor superfamily member 6) Source MGI Symbol Acc MGI 95484
D06	SBM0759058	ENSMUST00000128753.1	Gaa	ENSMUSG0000025579	glucosidase, alpha, acid Source MGI Symbol Acc MGI 95609
D07	SBM1089000	ENSMUST00000018711.14	Gabarap	ENSMUSG0000018567	gamma-aminobutyric acid receptor associated protein Source MGI Symbol Acc MGI 1861742
D08	SBM1002669	ENSMUST00000204487.2	Gabarapl1	ENSMUSG00000030161	gamma-aminobutyric acid (GABA) A receptor-associated protein-like 1 Source MGI Symbol Acc MGI 1914980
D09	SBM0683670	ENSMUST00000034428.7	Gabarapl2	ENSMUSG00000031950	gamma-aminobutyric acid (GABA) A receptor-associated protein-like 2 Source MGI Symbol Acc MGI 1890602
D10	SBM0727728	ENSMUST00000132909.1	Hdac1	ENSMUSG0000028800	histone deacetylase 1 Source MGI Symbol Acc MGI 108086
D11	SBM1010578	ENSMUST00000033501.14	Hdac6	ENSMUSG00000031161	histone deacetylase 6 Source MGI Symbol Acc MGI 1333752
D12	SBM0845703	ENSMUST00000140862.6	Hgs	ENSMUSG0000025793	HGF-regulated tyrosine kinase substrate Source MGI Symbol Acc MGI 104681
E01	SBM0939146	ENSMUST00000155242.7	Hsp90aa1	ENSMUSG00000021270	heat shock protein 90, alpha (cytosolic), class A member 1 Source MGI Symbol Acc MGI 96250
E02	SBM0678268	ENSMUST00000215526.1	Hspa8	ENSMUSG0000015656	heat shock protein 8 Source MGI Symbol Acc MGI 105384
E03	SBM0987378	ENSMUST00000123755.7	Htt	ENSMUSG0000029104	huntingtin Source MGI Symbol Acc MGI 96067
E04	SBM0903694	ENSMUST00000068592.4	Ifng	ENSMUSG00000055170	interferon gamma Source MGI Symbol Acc MGI 107656
E05	SBM1026650	ENSMUST00000122386.7	Igf1	ENSMUSG0000020053	insulin-like growth factor 1 Source MGI Symbol Acc MGI 96432
E06	SBM0867142	ENSMUST00000125933.1	Ins2	ENSMUSG00000000215	insulin II Source MGI Symbol Acc MGI 96573
E07	SBM0768586	ENSMUST00000097271.3	Irgm1	ENSMUSG0000046879	immunity-related GTPase family M member 1 Source MGI Symbol Acc MGI 107567
E08	SBM1075294	ENSMUST00000033824.7	Lamp1	ENSMUSG00000031447	lysosomal-associated membrane protein 1 Source MGI Symbol Acc MGI 96745
E09	SBM0905604	ENSMUST00000029128.3	Map1lc3a	ENSMUSG0000027602	microtubule-associated protein 1 light chain 3 alpha Source MGI Symbol Acc MGI 1915661
E10	SBM0874756	ENSMUST00000181948.1	Map1lc3b	ENSMUSG00000031812	microtubule-associated protein 1 light chain 3 beta Source MGI Symbol Acc MGI 1914693
E11	SBM0683456	ENSMUST00000114754.7	Mapk14	ENSMUSG00000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
E12	SBM0984642	ENSMUST00000132379.1	Mapk8	ENSMUSG0000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
F01	SBM1220565	ENSMUST00000103221.9	Mtor	ENSMUSG0000028991	mechanistic target of rapamycin kinase Source MGI Symbol Acc MGI 1928394
F02	SBM0841870	ENSMUST00000164430.6	Nfkb1	ENSMUSG0000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
F03	SBM1080908	ENSMUST00000144435.1	Npc1	ENSMUSG0000024413	NPC intracellular cholesterol transporter 1 Source MGI Symbol Acc MGI 1097712
F04	SBM0993091	ENSMUST00000115811.7	Pik3c3	ENSMUSG00000033628	phosphatidylinositol 3-kinase catalytic subunit type 3 Source MGI Symbol Acc MGI 2445019
F05	SBM0808732	ENSMUST00000220366.1	Pik3cg	ENSMUSG0000020573	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source MGI Symbol Acc MGI 1353576
F06	SBM0809500	ENSMUST00000191117.6	Pik3r4	ENSMUSG00000032571	phosphoinositide-3-kinase regulatory subunit 4 Source MGI Symbol Acc MGI 1922919
F07	SBM0905959	ENSMUST00000228218.1	Prkaa1	ENSMUSG00000050697	protein kinase, AMP-activated, alpha 1 catalytic subunit Source MGI Symbol Acc MGI 2145955
F08	SBM1220566	ENSMUST00000013807.7	Pten	ENSMUSG0000013663	phosphatase and tensin homolog Source MGI Symbol Acc MGI 109583
F09	SBM0982743	ENSMUST00000223672.1	Rab24	ENSMUSG00000034789	RAB24, member RAS oncogene family Source MGI Symbol Acc MGI 105065
F10	SBM0795530	ENSMUST00000168495.1	Rb1	ENSMUSG0000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1016716	ENSMUST00000108769.7	Rgs19	ENSMUSG0000002458	regulator of G-protein signaling 19 Source MGI Symbol Acc MGI 1915153
F12	SBM0853475	ENSMUST00000058286.8	Rps6kb1	ENSMUSG0000020516	ribosomal protein S6 kinase, polypeptide 1 Source MGI Symbol Acc MGI 1270849
G01	SBM1045894	ENSMUST00000163779.7	Snca	ENSMUSG0000025889	synuclein, alpha Source MGI Symbol Acc MGI 1277151
G02	SBM1075778	ENSMUST00000131214.1	Sqstm1	ENSMUSG0000015837	sequestosome 1 Source MGI Symbol Acc MGI 107931
G03	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	SBM0904746	ENSMUST00000103122.9	Tgm2	ENSMUSG00000037820	transglutaminase 2, C polypeptide Source MGI Symbol Acc MGI 98731
G05	SBM0933981	ENSMUST00000067469.5	Tmem74	ENSMUSG0000054409	transmembrane protein 74 Source MGI Symbol Acc MGI 2443417
G06	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG0000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G07	SBM0969669	ENSMUST00000046383.11	Tnfsf10	ENSMUSG0000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G08	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG0000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G09	SBM0718433	ENSMUST00000198470.1	Ulk1	ENSMUSG0000029512	unc-51 like kinase 1 Source MGI Symbol Acc MGI 1270126
G10	SBM1002573	ENSMUST00000157049.1	Ulk2	ENSMUSG0000004798	unc-51 like kinase 2 Source MGI Symbol Acc MGI 1352758
G11	SBM0779120	ENSMUST00000209123.1	Uvrug	ENSMUSG0000035354	UV radiation resistance associated gene Source MGI Symbol Acc MGI 1925860
G12	SBM0944548	ENSMUST00000103060.9	Wipi1	ENSMUSG0000041895	WD repeat domain, phosphoinositide interacting 1 Source MGI Symbol Acc MGI 1261864
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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