

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

## Mouse Antiviral Response

Cat. no. 249950 SBMM-122ZR

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	Aim2	Atg12	Atg5	Azi2	Card9	Casp1	Casp8	Ccl3	Ccl4	Ccl5	Cd40	Cd80
B	Cd86	Chuk	Cnpy3	Ctsb	Ctsl	Ctss	Cxcl10	Cxcl11	Cxcl9	Cyld	Tkfc	Ddx3x
C	Ddx58	Dhx58	Fadd	Fos	Hsp90aa1	Ifih1	Ifna2	Ifnar1	Ifnb1	Ikbkb	Il12a	Il12b
D	Il15	Il18	Il1b	Il6	Irk1	Irf3	Irf5	Irf7	Isg15	Jun	Map2k1	Map2k3
E	Map3k1	Map3k7	Mapk1	Mapk14	Mapk3	Mapk8	Mavs	Mefv	Mx1	Myd88	Nfkb1	Nfkbia
F	Nlrp3	Nod2	Oas2	Pin1	Pstpip1	Pycard	Rela	Ripk1	Spp1	Stat1	Sugt1	Tank
G	Tbk1	Tbkbp1	Ticam1	Tlr3	Tlr7	Tlr6	Tlr9	Tnf	Tradd	Traf3	Traf6	Trim25
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	SBM0853214	ENSMUST00000192575.1	Aim2	ENSMUSG0000037860	absent in melanoma 2 Source MGI Symbol Acc MGI 2686159
A02	SBM1008240	ENSMUST00000035648.5	Atg12	ENSMUSG0000032905	autophagy related 12 Source MGI Symbol Acc MGI 1914776
A03	SBM0791795	ENSMUST00000217412.1	Atg5	ENSMUSG0000038160	autophagy related 5 Source MGI Symbol Acc MGI 1277186
A04	SBM1038079	ENSMUST00000130735.7	Azi2	ENSMUSG0000039285	5-azacytidine induced gene 2 Source MGI Symbol Acc MGI 1351332
A05	SBM0745387	ENSMUST0000028294.6	Card9	ENSMUSG0000026928	caspase recruitment domain family, member 9 Source MGI Symbol Acc MGI 2685628
A06	SBM0862549	ENSMUST0000027015.5	Casp1	ENSMUSG0000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A07	SBM0772558	ENSMUST0000027189.14	Casp8	ENSMUSG0000026029	caspase 8 Source MGI Symbol Acc MGI 1261423
A08	SBM0794563	ENSMUST0000001008.5	Ccl3	ENSMUSG0000000982	chemokine (C-C motif) ligand 3 Source MGI Symbol Acc MGI 98260
A09	SBM0939661	ENSMUST0000019074.3	Ccl4	ENSMUSG0000018930	chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261
A10	SBM0703029	ENSMUST00000125015.1	Ccl5	ENSMUSG0000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A11	SBM0757957	ENSMUST00000073707.8	Cd40	ENSMUSG0000017652	CD40 antigen Source MGI Symbol Acc MGI 88336
A12	SBM1043965	ENSMUST00000232409.1	Cd80	ENSMUSG0000075122	CD80 antigen Source MGI Symbol Acc MGI 101775
B01	SBM0889253	ENSMUST00000089620.10	Cd86	ENSMUSG0000022901	CD86 antigen Source MGI Symbol Acc MGI 101773
B02	SBM1034080	ENSMUST0000026217.10	Chuk	ENSMUSG0000025199	conserved helix-loop-helix ubiquitous kinase Source MGI Symbol Acc MGI 99484
B03	SBM0735640	ENSMUST00000121671.1	Cnpy3	ENSMUSG0000023973	canopy FGF signaling regulator 3 Source MGI Symbol Acc MGI 1919279
B04	SBM0677916	ENSMUST00000225540.1	Ctsb	ENSMUSG0000021939	cathepsin B Source MGI Symbol Acc MGI 88561
B05	SBM1071990	ENSMUST00000222462.1	Ctsl	ENSMUSG0000021477	cathepsin L Source MGI Symbol Acc MGI 88564
B06	SBM0953672	ENSMUST00000155667.8	Ctss	ENSMUSG0000038642	cathepsin S Source MGI Symbol Acc MGI 107341
B07	SBM0996179	ENSMUST00000118006.2	Cxcl10	ENSMUSG0000034855	chemokine (C-X-C motif) ligand 10 Source MGI Symbol Acc MGI 1352450
B08	SBM0710486	ENSMUST00000122808.1	Cxcl11	ENSMUSG0000060183	chemokine (C-X-C motif) ligand 11 Source MGI Symbol Acc MGI 1860203
B09	SBM0993686	ENSMUST00000113093.4	Cxcl9	ENSMUSG0000029417	chemokine (C-X-C motif) ligand 9 Source MGI Symbol Acc MGI 1352449
B10	SBM0870561	ENSMUST00000211554.1	Cyld	ENSMUSG0000036712	CYLD lysine 63 deubiquitinase Source MGI Symbol Acc MGI 1921506
B11	SBM0738753	ENSMUST00000236478.1	Tkfc	ENSMUSG0000034371	triokinase, FMN cyclase Source MGI Symbol Acc MGI 2385084
B12	SBM0986162	ENSMUST00000153851.7	Ddx3x	ENSMUSG0000000787	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 3, X-linked Source MGI Symbol Acc MGI 103064
C01	SBM1059014	ENSMUST00000142055.1	Ddx58	ENSMUSG0000040296	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58 Source MGI Symbol Acc MGI 2442858
C02	SBM0868097	ENSMUST00000149869.1	Dhx58	ENSMUSG0000017830	DEXH (Asp-Glu-X-His) box polypeptide 58 Source MGI Symbol Acc MGI 1931560
C03	SBM0895464	ENSMUST00000033394.7	Fadd	ENSMUSG0000031077	Fas (TNFRSF6)-associated via death domain Source MGI Symbol Acc MGI 109324
C04	SBM0977461	ENSMUST00000134311.1	Fos	ENSMUSG0000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
C05	SBM0939146	ENSMUST00000155242.7	Hsp90aa1	ENSMUSG0000021270	heat shock protein 90, alpha (cytosolic), class A member 1 Source MGI Symbol Acc MGI 96250
C06	SBM0951188	ENSMUST00000175964.1	Ifih1	ENSMUSG0000026896	interferon induced with helicase C domain 1 Source MGI Symbol Acc MGI 1918836
C07	SBM0773737	ENSMUST00000105147.1	Ifna2	ENSMUSG0000078354	interferon alpha 2 Source MGI Symbol Acc MGI 107666
C08	SBM1048996	ENSMUST00000129878.1	Ifnar1	ENSMUSG0000022967	interferon (alpha and beta) receptor 1 Source MGI Symbol Acc MGI 107658
C09	SBM0872658	ENSMUST00000055671.4	Ifnb1	ENSMUSG0000048806	interferon beta 1, fibroblast Source MGI Symbol Acc MGI 107657
C10	SBM0683235	ENSMUST00000144583.7	Ikbbk	ENSMUSG0000031537	inhibitor of kappaB kinase beta Source MGI Symbol Acc MGI 1338071
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0806519	107816.3	Il12a	000027776	interleukin 12a Source MGI Symbol Acc MGI 96539
C12	SBM0957286	ENSMUST00000102796.9	Il12b	ENSMUSG0000004296	interleukin 12b Source MGI Symbol Acc MGI 96540
D01	SBM0737685	ENSMUST00000034148.6	Il15	ENSMUSG00000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
D02	SBM0953194	ENSMUST00000180021.1	Il18	ENSMUSG00000039217	interleukin 18 Source MGI Symbol Acc MGI 107936
D03	SBM0738485	ENSMUST00000028881.13	Il1b	ENSMUSG00000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
D04	SBM0742623	ENSMUST00000026845.11	Il6	ENSMUSG00000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D05	SBM0933124	ENSMUST00000148706.7	Irak1	ENSMUSG0000001392	interleukin-1 receptor-associated kinase 1 Source MGI Symbol Acc MGI 107420
D06	SBM0803819	ENSMUST00000207129.1	Irf3	ENSMUSG00000003184	interferon regulatory factor 3 Source MGI Symbol Acc MGI 1859179
D07	SBM0896474	ENSMUST00000163511.6	Irf5	ENSMUSG00000029771	interferon regulatory factor 5 Source MGI Symbol Acc MGI 1350924
D08	SBM0775971	ENSMUST00000123525.1	Irf7	ENSMUSG00000025498	interferon regulatory factor 7 Source MGI Symbol Acc MGI 1859212
D09	SBM1019263	ENSMUST00000085425.4	Isg15	ENSMUSG00000035692	ISG15 ubiquitin-like modifier Source MGI Symbol Acc MGI 1855694
D10	SBM1045409	ENSMUST00000107094.1	Jun	ENSMUSG00000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
D11	SBM1025120	ENSMUST00000005066.8	Map2k1	ENSMUSG00000004936	mitogen-activated protein kinase kinase 1 Source MGI Symbol Acc MGI 1346866
D12	SBM0905391	ENSMUST00000130269.1	Map2k3	ENSMUSG00000018932	mitogen-activated protein kinase kinase 3 Source MGI Symbol Acc MGI 1346868
E01	SBM0811680	ENSMUST00000145055.1	Map3k1	ENSMUSG00000021754	mitogen-activated protein kinase kinase kinase 1 Source MGI Symbol Acc MGI 1346872
E02	SBM0833481	ENSMUST00000037607.10	Map3k7	ENSMUSG00000028284	mitogen-activated protein kinase kinase kinase 7 Source MGI Symbol Acc MGI 1346877
E03	SBM0800614	ENSMUST000000231821.1	Mapk1	ENSMUSG00000063358	mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858
E04	SBM0683456	ENSMUST00000114754.7	Mapk14	ENSMUSG00000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
E05	SBM0856900	ENSMUST00000206272.1	Mapk3	ENSMUSG00000063065	mitogen-activated protein kinase 3 Source MGI Symbol Acc MGI 1346859
E06	SBM0984642	ENSMUST00000132379.1	Mapk8	ENSMUSG00000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
E07	SBM1065106	ENSMUST00000110199.2	Mavs	ENSMUSG00000037523	mitochondrial antiviral signaling protein Source MGI Symbol Acc MGI 2444773
E08	SBM0761253	ENSMUST00000023180.14	Mefv	ENSMUSG00000022534	Mediterranean fever Source MGI Symbol Acc MGI 1859396
E09	SBM0761203	ENSMUST000000232193.1	Mx1	ENSMUSG00000000386	MX dynamin-like GTPase 1 Source MGI Symbol Acc MGI 97243
E10	SBM0986804	ENSMUST00000035092.6	Myd88	ENSMUSG00000032508	myeloid differentiation primary response gene 88 Source MGI Symbol Acc MGI 108005
E11	SBM0841870	ENSMUST00000164430.6	Nfkb1	ENSMUSG00000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
E12	SBM0696431	ENSMUST00000021413.8	Nfkbia	ENSMUSG00000021025	nuclear factor of kappa light polypeptide gene enhancer in B cells inhibitor, alpha Source MGI Symbol Acc MGI 104741
F01	SBM0804985	ENSMUST00000149126.1	Nlrp3	ENSMUSG00000032691	NLR family, pyrin domain containing 3 Source MGI Symbol Acc MGI 2653833
F02	SBM1075105	ENSMUST00000054324.14	Nod2	ENSMUSG00000055994	nucleotide-binding oligomerization domain containing 2 Source MGI Symbol Acc MGI 2429397
F03	SBM0939505	ENSMUST00000146101.1	Oas2	ENSMUSG00000032690	2'-5' oligoadenylate synthetase 2 Source MGI Symbol Acc MGI 2180852
F04	SBM0704211	ENSMUST00000034689.7	Pin1	ENSMUSG00000032171	protein (peptidyl-prolyl cis/trans isomerase) NIMA-interacting 1 Source MGI Symbol Acc MGI 1346036
F05	SBM0761397	ENSMUST00000132800.1	Pstpip1	ENSMUSG00000032322	proline-serine-threonine phosphatase-interacting protein 1 Source MGI Symbol Acc MGI 1321396
F06	SBM0791013	ENSMUST00000205594.1	Pycard	ENSMUSG00000030793	PYD and CARD domain containing Source MGI Symbol Acc MGI 1931465
F07	SBM0937498	ENSMUST00000237361.1	Rela	ENSMUSG00000024927	v-rel reticuloendotheliosis viral oncogene homolog A (avian) Source MGI Symbol Acc MGI 103290
F08	SBM0953041	ENSMUST00000167374.8	Ripk1	ENSMUSG00000021408	receptor (TNFRSF)-interacting serine-threonine kinase 1 Source MGI Symbol Acc MGI 108212
F09	SBM0826950	ENSMUST00000086833.12	Spp1	ENSMUSG00000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
F10	SBM0954168	ENSMUST00000070968.13	Stat1	ENSMUSG00000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0757534	ENSMUST00000226320.1	Sugf1	ENSMUSG0000022024	SGT1, suppressor of G2 allele of SKP1 ( <i>S. cerevisiae</i> ) Source MGI Symbol Acc MGI 1915205
F12	SBM1000844	ENSMUST00000112495.7	Tank	ENSMUSG0000064289	TRAF family member-associated Nf-kappa B activator Source MGI Symbol Acc MGI 107676
G01	SBM0858013	ENSMUST00000219400.1	Tbk1	ENSMUSG0000020115	TANK-binding kinase 1 Source MGI Symbol Acc MGI 1929658
G02	SBM0946331	ENSMUST00000118375.7	Tbkbp1	ENSMUSG0000038517	TBK1 binding protein 1 Source MGI Symbol Acc MGI 1920424
G03	SBM0979664	ENSMUST00000058136.8	Ticam1	ENSMUSG0000047123	toll-like receptor adaptor molecule 1 Source MGI Symbol Acc MGI 2147032
G04	SBM0964228	ENSMUST00000209772.1	Tlr3	ENSMUSG00000031639	toll-like receptor 3 Source MGI Symbol Acc MGI 2156367
G05	SBM0901291	ENSMUST00000112164.1	Tlr7	ENSMUSG0000044583	toll-like receptor 7 Source MGI Symbol Acc MGI 2176882
G06	SBM1009367	ENSMUST00000112170.1	Tlr8	ENSMUSG0000040522	toll-like receptor 8 Source MGI Symbol Acc MGI 2176887
G07	SBM0973468	ENSMUST00000062241.10	Tlr9	ENSMUSG0000045322	toll-like receptor 9 Source MGI Symbol Acc MGI 1932389
G08	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG0000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G09	SBM0977630	ENSMUST00000144762.7	Tradd	ENSMUSG00000031887	TNFRSF1A-associated via death domain Source MGI Symbol Acc MGI 109200
G10	SBM0833897	ENSMUST00000021706.10	Traf3	ENSMUSG0000021277	TNF receptor-associated factor 3 Source MGI Symbol Acc MGI 108041
G11	SBM1225398	ENSMUST00000004949.7	Traf6	ENSMUSG0000027164	TNF receptor-associated factor 6 Source MGI Symbol Acc MGI 108072
G12	SBM0908940	ENSMUST00000100627.8	Trim25	ENSMUSG0000000275	tripartite motif-containing 25 Source MGI Symbol Acc MGI 102749
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 $\mu$ 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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