

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

## Mouse Type I Interferon Response

Cat. no. 249950 SBMM-016ZR

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	Adar	Bag3	Bst2	Casp1	Cav1	Ccl2	Ccl4	Ccl5	Cd69	Cd70	Cd80	Cd86
B	Cdkn1b	Ctla	Crp	Cxcl10	Ddx58	Eif2ak2	Gbp2b	H2-BI	H2-D1	H2-K1	H2-M10.1	H2-M3
C	H2-T10	Ifi204	Ifi30	Ifih1	Ifit1	Ifit2	Ifit3	Ifitm1	Ifitm2	Ifitm3	Ifno2	Ifno4
D	Ifnar1	Ifnar2	Ifnb1	Ifne	Ifnz	Il10	Il15	Il6	Irf1	Irf2	Irf3	Irf5
E	Irf7	Irf9	Isg15	Isg20	Jak1	Jak2	Mal	Met	Mx1	Mx2	Myd88	Nmi
F	Nos2	Oas1a	Oas1b	Oas2	Pml	Prkcz	Psme2	Sh2d1a	Shb	Socs1	Stat1	Stat2
G	Stat3	Tap1	Ticam1	Timp1	Tlr3	Tlr7	Tlr8	Tlr9	Tnfrsf10	Traf3	Tyk2	Vegfa
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	SBM0984683	ENSMUST00000107405.5	Adar	ENSMUSG0000027951	adenosine deaminase, RNA-specific Source MGI Symbol Acc MGI 1889575
A02	SBM0937285	ENSMUST00000033136.8	Bag3	ENSMUSG0000030847	BCL2-associated athanogene 3 Source MGI Symbol Acc MGI 1352493
A03	SBM0789175	ENSMUST00000051672.8	Bst2	ENSMUSG0000046718	bone marrow stromal cell antigen 2 Source MGI Symbol Acc MGI 1916800
A04	SBM0862549	ENSMUST00000027015.5	Casp1	ENSMUSG0000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A05	SBM0727943	ENSMUST00000115454.1	Cav1	ENSMUSG0000007655	caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709
A06	SBM0836747	ENSMUST0000000193.5	Ccl2	ENSMUSG0000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
A07	SBM0939661	ENSMUST00000019074.3	Ccl4	ENSMUSG0000018930	chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261
A08	SBM0703029	ENSMUST00000125015.1	Ccl5	ENSMUSG0000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A09	SBM0829218	ENSMUST00000204411.1	Cd69	ENSMUSG0000030156	CD69 antigen Source MGI Symbol Acc MGI 88343
A10	SBM0822094	ENSMUST00000019633.7	Cd70	ENSMUSG0000019489	CD70 antigen Source MGI Symbol Acc MGI 1195273
A11	SBM1043965	ENSMUST00000232409.1	Cd80	ENSMUSG0000075122	CD80 antigen Source MGI Symbol Acc MGI 101775
A12	SBM0889253	ENSMUST00000089620.10	Cd86	ENSMUSG0000022901	CD86 antigen Source MGI Symbol Acc MGI 101773
B01	SBM1006924	ENSMUST00000067327.10	Cdkn1b	ENSMUSG0000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
B02	SBM1059521	ENSMUST00000230395.1	Ciita	ENSMUSG0000022504	class II transactivator Source MGI Symbol Acc MGI 108445
B03	SBM0905444	ENSMUST00000194251.1	Crp	ENSMUSG0000037942	C-reactive protein, pentraxin-related Source MGI Symbol Acc MGI 88512
B04	SBM0996179	ENSMUST00000118006.2	Cxcl10	ENSMUSG0000034855	chemokine (C-X-C motif) ligand 10 Source MGI Symbol Acc MGI 1352450
B05	SBM1059014	ENSMUST00000142055.1	Ddx58	ENSMUSG0000040296	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58 Source MGI Symbol Acc MGI 2442858
B06	SBM1072371	ENSMUST00000024884.4	Eif2ak2	ENSMUSG0000024079	eukaryotic translation initiation factor 2-alpha kinase 2 Source MGI Symbol Acc MGI 1353449
B07	SBM0826022	ENSMUST00000029936.4	Gbp2b	ENSMUSG0000040264	guanylate binding protein 2b Source MGI Symbol Acc MGI 95666
B08	SBM0974808	ENSMUST00000183560.7	H2-BI	ENSMUSG0000073406	histocompatibility 2, blastocyst Source MGI Symbol Acc MGI 892004
B09	SBM0768433	ENSMUST00000173167.7	H2-D1	ENSMUSG0000073411	histocompatibility 2, D region locus 1 Source MGI Symbol Acc MGI 95896
B10	SBM0869585	ENSMUST00000025181.17	H2-K1	ENSMUSG0000061232	histocompatibility 2, K1, K region Source MGI Symbol Acc MGI 95904
B11	SBM0974730	ENSMUST00000172576.1	H2-M10.1	ENSMUSG0000024448	histocompatibility 2, M region locus 10.1 Source MGI Symbol Acc MGI 1276522
B12	SBM0880451	ENSMUST00000038580.6	H2-M3	ENSMUSG0000016206	histocompatibility 2, M region locus 3 Source MGI Symbol Acc MGI 95915
C01	SBM0696213	ENSMUST00000174382.7	H2-T10	ENSMUSG0000079491	histocompatibility 2, T region locus 10 Source MGI Symbol Acc MGI 95942
C02	SBM0788619	ENSMUST00000192414.1	Ifi204	ENSMUSG0000073489	interferon activated gene 204 Source MGI Symbol Acc MGI 96429
C03	SBM0743130	ENSMUST00000222087.1	Ifi30	ENSMUSG0000031838	interferon gamma inducible protein 30 Source MGI Symbol Acc MGI 2137648
C04	SBM0951188	ENSMUST00000175964.1	Ifih1	ENSMUSG0000026896	interferon induced with helicase C domain 1 Source MGI Symbol Acc MGI 1918836
C05	SBM0773740	ENSMUST00000102824.3	Ifit1	ENSMUSG0000034459	interferon-induced protein with tetratricopeptide repeats 1 Source MGI Symbol Acc MGI 99450
C06	SBM0834376	ENSMUST00000102826.3	Ifit2	ENSMUSG0000045932	interferon-induced protein with tetratricopeptide repeats 2 Source MGI Symbol Acc MGI 99449
C07	SBM0867602	ENSMUST00000102825.3	Ifit3	ENSMUSG0000074896	interferon-induced protein with tetratricopeptide repeats 3 Source MGI Symbol Acc MGI 1101055
C08	SBM1085854	ENSMUST00000106040.7	Ifitm1	ENSMUSG0000025491	interferon induced transmembrane protein 1 Source MGI Symbol Acc MGI 1915963
C09	SBM0902249	ENSMUST00000081649.9	Ifitm2	ENSMUSG0000060591	interferon induced transmembrane protein 2 Source MGI Symbol Acc MGI 1933382
C10	SBM0683664	ENSMUST00000026565.6	Ifitm3	ENSMUSG0000025492	interferon induced transmembrane protein 3 Source MGI Symbol Acc MGI 1913391
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0773737	105147.1	Ifna2	000078354	interferon alpha 2 Source MGI Symbol Acc MGI 107666
C12	SBM0940429	ENSMUST00000 094973.4	Ifna4	ENSMUSG00 000070904	interferon alpha 4 Source MGI Symbol Acc MGI 107664
D01	SBM1048996	ENSMUST00000 129878.1	Ifnar1	ENSMUSG00 000022967	interferon (alpha and beta) receptor 1 Source MGI Symbol Acc MGI 107658
D02	SBM0825385	ENSMUST00000 134491.8	Ifnar2	ENSMUSG00 000022971	interferon (alpha and beta) receptor 2 Source MGI Symbol Acc MGI 1098243
D03	SBM0872658	ENSMUST00000 055671.4	Ifnb1	ENSMUSG00 000048806	interferon beta 1, fibroblast Source MGI Symbol Acc MGI 107657
D04	SBM0904860	ENSMUST00000 056014.2	Ifne	ENSMUSG00 000045364	interferon epsilon Source MGI Symbol Acc MGI 2667156
D05	SBM0768271	ENSMUST00000 105144.1	Ifnz	ENSMUSG00 000096854	interferon zeta Source MGI Symbol Acc MGI 2448469
D06	SBM1004151	ENSMUST00000 016673.5	Il10	ENSMUSG00 000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
D07	SBM0737685	ENSMUST00000 034148.6	Il15	ENSMUSG00 000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
D08	SBM0742623	ENSMUST00000 026845.11	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D09	SBM1091850	ENSMUST00000 138913.7	Irf1	ENSMUSG00 000018899	interferon regulatory factor 1 Source MGI Symbol Acc MGI 96590
D10	SBM0900000	ENSMUST00000 210284.1	Irf2	ENSMUSG00 000031627	interferon regulatory factor 2 Source MGI Symbol Acc MGI 96591
D11	SBM0803819	ENSMUST00000 207129.1	Irf3	ENSMUSG00 000003184	interferon regulatory factor 3 Source MGI Symbol Acc MGI 1859179
D12	SBM0896474	ENSMUST00000 163511.6	Irf5	ENSMUSG00 000029771	interferon regulatory factor 5 Source MGI Symbol Acc MGI 1350924
E01	SBM0775971	ENSMUST00000 123525.1	Irf7	ENSMUSG00 000025498	interferon regulatory factor 7 Source MGI Symbol Acc MGI 1859212
E02	SBM0930247	ENSMUST00000 134863.7	Irf9	ENSMUSG00 000002325	interferon regulatory factor 9 Source MGI Symbol Acc MGI 107587
E03	SBM1019263	ENSMUST00000 085425.4	Isg15	ENSMUSG00 000035692	ISG15 ubiquitin-like modifier Source MGI Symbol Acc MGI 1855694
E04	SBM0808139	ENSMUST00000 121645.7	Isg20	ENSMUSG00 000039236	interferon-stimulated protein Source MGI Symbol Acc MGI 1928895
E05	SBM0792684	ENSMUST00000 155328.7	Jak1	ENSMUSG00 000028530	Janus kinase 1 Source MGI Symbol Acc MGI 96628
E06	SBM0844988	ENSMUST00000 065796.9	Jak2	ENSMUSG00 000024789	Janus kinase 2 Source MGI Symbol Acc MGI 96629
E07	SBM0976497	ENSMUST00000 028853.6	Mal	ENSMUSG00 000027375	myelin and lymphocyte protein, T cell differentiation protein Source MGI Symbol Acc MGI 892970
E08	SBM1055926	ENSMUST00000 115442.7	Met	ENSMUSG00 000009376	met proto-oncogene Source MGI Symbol Acc MGI 96969
E09	SBM0761203	ENSMUST00000 232193.1	Mx1	ENSMUSG00 000000386	MX dynamin-like GTPase 1 Source MGI Symbol Acc MGI 97243
E10	SBM0794068	ENSMUST00000 188251.6	Mx2	ENSMUSG00 000023341	MX dynamin-like GTPase 2 Source MGI Symbol Acc MGI 97244
E11	SBM0986804	ENSMUST00000 035092.6	Myd88	ENSMUSG00 000032508	myeloid differentiation primary response gene 88 Source MGI Symbol Acc MGI 108005
E12	SBM1060050	ENSMUST00000 142868.1	Nmi	ENSMUSG00 000026946	N-myc (and STAT) interactor Source MGI Symbol Acc MGI 1928368
F01	SBM0835086	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
F02	SBM1049469	ENSMUST00000 080322.7	Oas1a	ENSMUSG00 000052776	2'-5' oligoadenylate synthetase 1A Source MGI Symbol Acc MGI 2180860
F03	SBM0974510	ENSMUST00000 183291.1	Oas1b	ENSMUSG00 000029605	2'-5' oligoadenylate synthetase 1B Source MGI Symbol Acc MGI 97430
F04	SBM0939505	ENSMUST00000 146101.1	Oas2	ENSMUSG00 000032690	2'-5' oligoadenylate synthetase 2 Source MGI Symbol Acc MGI 2180852
F05	SBM0751791	ENSMUST00000 135310.7	Pml	ENSMUSG00 000036986	promyelocytic leukemia Source MGI Symbol Acc MGI 104662
F06	SBM0723762	ENSMUST00000 139647.7	Prkcz	ENSMUSG00 000029053	protein kinase C, zeta Source MGI Symbol Acc MGI 97602
F07	SBM0801545	ENSMUST00000 162700.7	Psme2	ENSMUSG00 000079197	proteasome (prosome, macropain) activator subunit 2 (PA28 beta) Source MGI Symbol Acc MGI 1096365
F08	SBM0722545	ENSMUST00000 005839.10	Sh2d1a	ENSMUSG00 000005696	SH2 domain containing 1A Source MGI Symbol Acc MGI 1328352
F09	SBM0844473	ENSMUST00000 146236.7	Shb	ENSMUSG00 000044813	src homology 2 domain-containing transforming protein B Source MGI Symbol Acc MGI 98294
F10	SBM0830785	ENSMUST00000 229866.1	Socs1	ENSMUSG00 000038037	suppressor of cytokine signaling 1 Source MGI Symbol Acc MGI 1354910

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0954168	ENSMUST00000070968.13	Stat1	ENSMUSG0000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063
F12	SBM0896602	ENSMUST00000085708.2	Stat2	ENSMUSG0000040033	signal transducer and activator of transcription 2 Source MGI Symbol Acc MGI 103039
G01	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG0000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G02	SBM0946737	ENSMUST00000166582.1	Tap1	ENSMUSG0000037321	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP) Source MGI Symbol Acc MGI 98483
G03	SBM0979664	ENSMUST00000058136.8	Ticam1	ENSMUSG0000047123	toll-like receptor adaptor molecule 1 Source MGI Symbol Acc MGI 2147032
G04	SBM0839007	ENSMUST00000115342.9	Timp1	ENSMUSG0000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G05	SBM0964228	ENSMUST00000209772.1	Tlr3	ENSMUSG0000031639	toll-like receptor 3 Source MGI Symbol Acc MGI 2156367
G06	SBM0901291	ENSMUST00000112164.1	Tlr7	ENSMUSG0000044583	toll-like receptor 7 Source MGI Symbol Acc MGI 2176882
G07	SBM1009367	ENSMUST00000112170.1	Tlr8	ENSMUSG0000040522	toll-like receptor 8 Source MGI Symbol Acc MGI 2176887
G08	SBM0973468	ENSMUST00000062241.10	Tlr9	ENSMUSG0000045322	toll-like receptor 9 Source MGI Symbol Acc MGI 1932389
G09	SBM0969669	ENSMUST00000046383.11	Tnfsf10	ENSMUSG0000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G10	SBM0833897	ENSMUST00000021706.10	Traf3	ENSMUSG0000021277	TNF receptor-associated factor 3 Source MGI Symbol Acc MGI 108041
G11	SBM0927410	ENSMUST00000214454.1	Tyk2	ENSMUSG0000032175	tyrosine kinase 2 Source MGI Symbol Acc MGI 1929470
G12	SBM1079198	ENSMUST00000217017.1	Vegfa	ENSMUSG0000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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