

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

## Mouse Innate & Adaptive Immune Responses

Cat. no. 249950 SBMM-052ZR

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	Apc5	C3	C5ar1	Casp1	Cd12	Ccl5	Ccr4	Ccr5	Ccr6	Ccr8	Cd14	Cd4
B	Cd40	Cd40lg	Cd80	Cd86	Cd8a	Crp	Csf2	Cxcl10	Cxcr3	Ddx58	Fasf	Foxp3
C	Gata3	H2-Q10	H2-T23	Icam1	Ifna2	Ifnar1	Ifnb1	Ifng	Ifngr1	Il10	Il13	Il17a
D	Il18	Il1a	Il1b	Il1r1	Il2	Il23a	Il4	Il5	Il6	Ilr1	Ilr3	Ilr7
E	Ilgam	Jak2	Ly96	Lyz2	Mapk1	Mapk8	Mbl2	Mpo	Mx1	Myd88	Nfkb1	Nfkbia
F	Nlrp3	Nod1	Nod2	Rag1	Rorc	Slc11a1	Stat1	Stat3	Stat4	Stat6	Tbx21	Ticam1
G	Tlr1	Tlr2	Tlr3	Tlr4	Tlr5	Tlr6	Tlr7	Tlr8	Tlr9	Tnf	Traf6	Tyk2
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	SBM0730529	ENSMUST00000027824.6	Apcs	ENSMUSG0000026542	serum amyloid P-component Source MGI Symbol Acc MGI 98229
A02	SBM0754550	ENSMUST00000024988.14	C3	ENSMUSG0000024164	complement component 3 Source MGI Symbol Acc MGI 88227
A03	SBM0790759	ENSMUST00000020944.2.1	C5ar1	ENSMUSG0000049130	complement component 5a receptor 1 Source MGI Symbol Acc MGI 88232
A04	SBM0862549	ENSMUST00000027015.5	Casp1	ENSMUSG0000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A05	SBM0687223	ENSMUST00000000194.3	Ccl12	ENSMUSG0000035352	chemokine (C-C motif) ligand 12 Source MGI Symbol Acc MGI 108224
A06	SBM0703029	ENSMUST000000125015.1	Ccl5	ENSMUSG0000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A07	SBM0824531	ENSMUST000000054414.4	Ccr4	ENSMUSG0000047898	chemokine (C-C motif) receptor 4 Source MGI Symbol Acc MGI 107824
A08	SBM0964476	ENSMUST00000011144.2	Ccr5	ENSMUSG0000079227	chemokine (C-C motif) receptor 5 Source MGI Symbol Acc MGI 107182
A09	SBM0879668	ENSMUST000000164411.9	Ccr6	ENSMUSG0000040899	chemokine (C-C motif) receptor 6 Source MGI Symbol Acc MGI 1333797
A10	SBM0815029	ENSMUST000000048777.3	Ccr8	ENSMUSG0000042262	chemokine (C-C motif) receptor 8 Source MGI Symbol Acc MGI 1201402
A11	SBM0904854	ENSMUST000000061829.7	Cd14	ENSMUSG0000051439	CD14 antigen Source MGI Symbol Acc MGI 88318
A12	SBM1064445	ENSMUST000000024044.6	Cd4	ENSMUSG0000023274	CD4 antigen Source MGI Symbol Acc MGI 88335
B01	SBM0757957	ENSMUST000000073707.8	Cd40	ENSMUSG0000017652	CD40 antigen Source MGI Symbol Acc MGI 88336
B02	SBM0708134	ENSMUST000000033466.1	Cd40lg	ENSMUSG0000031132	CD40 ligand Source MGI Symbol Acc MGI 88337
B03	SBM1043965	ENSMUST000000232409.1	Cd80	ENSMUSG0000075122	CD80 antigen Source MGI Symbol Acc MGI 101775
B04	SBM0889253	ENSMUST000000089620.10	Cd86	ENSMUSG0000022901	CD86 antigen Source MGI Symbol Acc MGI 101773
B05	SBM0809834	ENSMUST000000205054.1	Cd8a	ENSMUSG0000053977	CD8 antigen, alpha chain Source MGI Symbol Acc MGI 88346
B06	SBM0905444	ENSMUST000000194251.1	Crp	ENSMUSG0000037942	C-reactive protein, pentraxin-related Source MGI Symbol Acc MGI 88512
B07	SBM1080991	ENSMUST000000019060.5	Csf2	ENSMUSG0000018916	colony stimulating factor 2 (granulocyte-macrophage) Source MGI Symbol Acc MGI 1339752
B08	SBM0996179	ENSMUST000000118006.2	Cxcl10	ENSMUSG0000034855	chemokine (C-X-C motif) ligand 10 Source MGI Symbol Acc MGI 1352450
B09	SBM0682187	ENSMUST000000056614.6	Cxcr3	ENSMUSG0000050232	chemokine (C-X-C motif) receptor 3 Source MGI Symbol Acc MGI 1277207
B10	SBM1059014	ENSMUST000000142055.1	Ddx58	ENSMUSG0000040296	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58 Source MGI Symbol Acc MGI 2442858
B11	SBM0967876	ENSMUST000000000834.3	Fasl	ENSMUSG0000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
B12	SBM0951877	ENSMUST000000234479.1	Foxp3	ENSMUSG0000039521	forkhead box P3 Source MGI Symbol Acc MGI 1891436
C01	SBM0782281	ENSMUST000000147533.1	Gata3	ENSMUSG0000015619	GATA binding protein 3 Source MGI Symbol Acc MGI 95663
C02	SBM0856796	ENSMUST000000174589.1	H2-Q10	ENSMUSG0000067235	histocompatibility 2, Q region locus 10 Source MGI Symbol Acc MGI 95929
C03	SBM0753125	ENSMUST000000102678.4	H2-T23	ENSMUSG0000067212	histocompatibility 2, T region locus 23 Source MGI Symbol Acc MGI 95957
C04	SBM0806584	ENSMUST000000215003.1	Icam1	ENSMUSG0000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
C05	SBM0773737	ENSMUST000000105147.1	Ifna2	ENSMUSG0000078354	interferon alpha 2 Source MGI Symbol Acc MGI 107666
C06	SBM1048996	ENSMUST000000129878.1	Ifnar1	ENSMUSG0000022967	interferon (alpha and beta) receptor 1 Source MGI Symbol Acc MGI 107658
C07	SBM0872658	ENSMUST000000055671.4	Ifnb1	ENSMUSG0000048806	interferon beta 1, fibroblast Source MGI Symbol Acc MGI 107657
C08	SBM0903694	ENSMUST000000068592.4	Iifng	ENSMUSG0000055170	interferon gamma Source MGI Symbol Acc MGI 107656
C09	SBM0816124	ENSMUST000000110989.2	Ifngr1	ENSMUSG0000020009	interferon gamma receptor 1 Source MGI Symbol Acc MGI 107655
C10	SBM1004151	ENSMUST000000016673.5	Il10	ENSMUSG0000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0860496	020650.1	Il13	000020383	interleukin 13 Source MGI Symbol Acc MGI 96541
C12	SBM1055424	ENSMUST0000027061.4	Il17a	ENSMUSG0000025929	interleukin 17A Source MGI Symbol Acc MGI 107364
D01	SBM0953194	ENSMUST00000180021.1	Il18	ENSMUSG00000039217	interleukin 18 Source MGI Symbol Acc MGI 107936
D02	SBM1007460	ENSMUST0000028882.1	Il1a	ENSMUSG00000027399	interleukin 1 alpha Source MGI Symbol Acc MGI 96542
D03	SBM0738485	ENSMUST0000028881.13	Il1b	ENSMUSG00000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
D04	SBM1086348	ENSMUST0000027241.10	Il1r1	ENSMUSG00000026072	interleukin 1 receptor, type I Source MGI Symbol Acc MGI 96545
D05	SBM0797059	ENSMUST0000029275.5	Il2	ENSMUSG00000027720	interleukin 2 Source MGI Symbol Acc MGI 96548
D06	SBM0691721	ENSMUST00000218109.1	Il23a	ENSMUSG00000025383	interleukin 23, alpha subunit p19 Source MGI Symbol Acc MGI 1932410
D07	SBM0926369	ENSMUST00000150568.7	Il4	ENSMUSG0000000869	interleukin 4 Source MGI Symbol Acc MGI 96556
D08	SBM1034588	ENSMUST0000048605.2	Il5	ENSMUSG00000036117	interleukin 5 Source MGI Symbol Acc MGI 96557
D09	SBM0742623	ENSMUST0000026845.11	Il6	ENSMUSG00000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D10	SBM0933124	ENSMUST00000148706.7	Irak1	ENSMUSG00000031392	interleukin-1 receptor-associated kinase 1 Source MGI Symbol Acc MGI 107420
D11	SBM0803819	ENSMUST00000207129.1	Irf3	ENSMUSG00000003184	interferon regulatory factor 3 Source MGI Symbol Acc MGI 1859179
D12	SBM0775971	ENSMUST00000123525.1	Irf7	ENSMUSG00000025498	interferon regulatory factor 7 Source MGI Symbol Acc MGI 1859212
E01	SBM0730179	ENSMUST00000156593.2	Ilgam	ENSMUSG00000030786	integrin alpha M Source MGI Symbol Acc MGI 96607
E02	SBM0844988	ENSMUST0000065796.9	Jak2	ENSMUSG00000024789	Janus kinase 2 Source MGI Symbol Acc MGI 96629
E03	SBM0966348	ENSMUST00000191260.1	Ly96	ENSMUSG00000025779	lymphocyte antigen 96 Source MGI Symbol Acc MGI 1341909
E04	SBM0672708	ENSMUST0000092163.8	Lyz2	ENSMUSG00000069516	lysozyme 2 Source MGI Symbol Acc MGI 96897
E05	SBM0800614	ENSMUST00000231821.1	Mapk1	ENSMUSG00000063358	mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858
E06	SBM0984642	ENSMUST00000132379.1	Mapk8	ENSMUSG00000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
E07	SBM0936795	ENSMUST0000025797.6	Mbl2	ENSMUSG00000024863	mannose-binding lectin (protein C) 2 Source MGI Symbol Acc MGI 96924
E08	SBM1011865	ENSMUST00000107930.2	Mpo	ENSMUSG00000009350	myeloperoxidase Source MGI Symbol Acc MGI 97137
E09	SBM0761203	ENSMUST00000232193.1	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	ENSMUST0000021413.8	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	SBM0681489	ENSMUST00000205242.1	Nod1	ENSMUSG00000038058	nucleotide-binding oligomerization domain containing 1 Source MGI Symbol Acc MGI 1341839
F03	SBM1075105	ENSMUST00000054324.14	Nod2	ENSMUSG00000055994	nucleotide-binding oligomerization domain containing 2 Source MGI Symbol Acc MGI 2429397
F04	SBM0803807	ENSMUST0000078494.5	Rag1	ENSMUSG00000061311	recombination activating gene 1 Source MGI Symbol Acc MGI 97848
F05	SBM0832210	ENSMUST00000197040.4	Rorc	ENSMUSG00000028150	RAR-related orphan receptor gamma Source MGI Symbol Acc MGI 104856
F06	SBM1030533	ENSMUST00000147233.7	Slc11a1	ENSMUSG00000026177	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1 Source MGI Symbol Acc MGI 1345275
F07	SBM0954168	ENSMUST0000070968.13	Stat1	ENSMUSG00000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063
F08	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG00000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
F09	SBM0758089	ENSMUST00000187554.1	Stat4	ENSMUSG00000062939	signal transducer and activator of transcription 4 Source MGI Symbol Acc MGI 103062
F10	SBM0912507	ENSMUST00000156231.1	Stat6	ENSMUSG0000002147	signal transducer and activator of transcription 6 Source MGI Symbol Acc MGI 103034

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1024821	ENSMUST0000001484.2	Tbx21	ENSMUSG0000001444	T-box 21 Source MGI Symbol Acc MGI 1888984
F12	SBM0979664	ENSMUST00000058136.8	Ticam1	ENSMUSG00000047123	toll-like receptor adaptor molecule 1 Source MGI Symbol Acc MGI 2147032
G01	SBM0864936	ENSMUST00000059349.5	Tlr1	ENSMUSG00000044827	toll-like receptor 1 Source MGI Symbol Acc MGI 1341295
G02	SBM0974490	ENSMUST00000029623.10	Tlr2	ENSMUSG00000027995	toll-like receptor 2 Source MGI Symbol Acc MGI 1346060
G03	SBM0964228	ENSMUST000000209772.1	Tlr3	ENSMUSG00000031639	toll-like receptor 3 Source MGI Symbol Acc MGI 2156367
G04	SBM0745293	ENSMUST000000107365.2	Tlr4	ENSMUSG00000039005	toll-like receptor 4 Source MGI Symbol Acc MGI 96824
G05	SBM0677822	ENSMUST000000191820.1	Tlr5	ENSMUSG00000079164	toll-like receptor 5 Source MGI Symbol Acc MGI 1858171
G06	SBM0968629	ENSMUST000000201307.1	Tlr6	ENSMUSG00000051498	toll-like receptor 6 Source MGI Symbol Acc MGI 1341296
G07	SBM0901291	ENSMUST000000112164.1	Tlr7	ENSMUSG00000044583	toll-like receptor 7 Source MGI Symbol Acc MGI 2176882
G08	SBM1009367	ENSMUST000000112170.1	Tlr8	ENSMUSG00000040522	toll-like receptor 8 Source MGI Symbol Acc MGI 2176887
G09	SBM0973468	ENSMUST000000062241.10	Tlr9	ENSMUSG00000045322	toll-like receptor 9 Source MGI Symbol Acc MGI 1932389
G10	SBM0788439	ENSMUST000000025263.14	Tnf	ENSMUSG00000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G11	SBM1225398	ENSMUST000000004949.7	Traf6	ENSMUSG00000027164	TNF receptor-associated factor 6 Source MGI Symbol Acc MGI 108072
G12	SBM0927410	ENSMUST000000214454.1	Tyk2	ENSMUSG00000032175	tyrosine kinase 2 Source MGI Symbol Acc MGI 1929470
H01	SBM1220560	ENSMUST000000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST000000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST000000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST000000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST000000166469.7	Hsp90ab1	ENSMUSG00000023944	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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