

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

## Mouse Cancer Inflammation & Immunity Crosstalk

Cat. no. 249950 SBMM-181ZA

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Ackr3	Aicda	Bcl2	Bcl2l1	Ccl2	Ccl20	Ccl22	Ccl28	Ccl4	Ccl5	Ccr1	Ccr10
B	Ccr2	Ccr4	Ccr5	Ccr7	Ccr9	Cd274	Csf1	Csf2	Csf3	Ctla4	Cxcl1	Cxcl10
C	Cxcl11	Cxcl12	Cxcl2	Cxcl5	Cxcl9	Cxcr1	Cxcr2	Cxcr3	Cxcr4	Cxcr5	Egf	Egfr
D	Fasl	Foxp3	Gbp2b	Gzma	Gzmb	H2-D1	H2-K1	Hif1a	Ido1	Ifng	Igf1	Il10
E	Il12a	Il12b	Il13	Il15	Il17a	Il1a	Il1b	Il1r1	Il2	Il22	Il23a	Il4
F	Il5	Il6	Irf1	Klf1	Mif	Myc	Myd88	NfkB1	Nos2	Pdcd1	Ptgs2	Spp1
G	Stat1	Stat3	Tgfb1	Tlr2	Tlr3	Tlr4	Tlr7	Tlr9	Tnf	Tnfrsf10	Trp53	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	SBM0734536	ENSMUST00000065587.4	Ackr3	ENSMUSG0000044337	atypical chemokine receptor 3 Source MGI Symbol Acc MGI 109562
A02	SBM1061882	ENSMUST00000043301.13	Aicda	ENSMUSG0000040627	activation-induced cytidine deaminase Source MGI Symbol Acc MGI 1342279
A03	SBM0876340	ENSMUST000000189999.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A04	SBM0751583	ENSMUST000000134357.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
A05	SBM0836747	ENSMUST00000000193.5	Ccl2	ENSMUSG0000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
A06	SBM1058215	ENSMUST000000113437.8	Ccl20	ENSMUSG0000026166	chemokine (C-C motif) ligand 20 Source MGI Symbol Acc MGI 1329031
A07	SBM0685855	ENSMUST000000034231.3	Ccl22	ENSMUSG00000031779	chemokine (C-C motif) ligand 22 Source MGI Symbol Acc MGI 1306779
A08	SBM1013959	ENSMUST000000099241.3	Ccl28	ENSMUSG00000074715	chemokine (C-C motif) ligand 28 Source MGI Symbol Acc MGI 1861731
A09	SBM0939661	ENSMUST000000019074.3	Ccl4	ENSMUSG0000018930	chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261
A10	SBM0703029	ENSMUST000000125015.1	Ccl5	ENSMUSG0000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A11	SBM1015405	ENSMUST000000026911.5	Ccr1	ENSMUSG0000025804	chemokine (C-C motif) receptor 1 Source MGI Symbol Acc MGI 104618
A12	SBM0858133	ENSMUST000000062759.3	Ccr10	ENSMUSG0000044052	chemokine (C-C motif) receptor 10 Source MGI Symbol Acc MGI 1096320
B01	SBM0796638	ENSMUST000000168841.2	Ccr2	ENSMUSG0000049103	chemokine (C-C motif) receptor 2 Source MGI Symbol Acc MGI 106185
B02	SBM0824531	ENSMUST000000054414.4	Ccr4	ENSMUSG0000047898	chemokine (C-C motif) receptor 4 Source MGI Symbol Acc MGI 107824
B03	SBM0964476	ENSMUST000000111442.2	Ccr5	ENSMUSG0000079227	chemokine (C-C motif) receptor 5 Source MGI Symbol Acc MGI 107182
B04	SBM0681617	ENSMUST000000103134.3	Ccr7	ENSMUSG0000037944	chemokine (C-C motif) receptor 7 Source MGI Symbol Acc MGI 103011
B05	SBM0943888	ENSMUST000000180093.1	Ccr9	ENSMUSG0000029530	chemokine (C-C motif) receptor 9 Source MGI Symbol Acc MGI 1341902
B06	SBM0716869	ENSMUST000000016640.7	Cd274	ENSMUSG0000016496	CD274 antigen Source MGI Symbol Acc MGI 1926446
B07	SBM0903322	ENSMUST000000155557.1	Csf1	ENSMUSG0000014599	colony stimulating factor 1 (macrophage) Source MGI Symbol Acc MGI 1339753
B08	SBM1080991	ENSMUST000000019060.5	Csf2	ENSMUSG0000018916	colony stimulating factor 2 (granulocyte-macrophage) Source MGI Symbol Acc MGI 1339752
B09	SBM0837472	ENSMUST000000038886.2	Csf3	ENSMUSG0000038067	colony stimulating factor 3 (granulocyte) Source MGI Symbol Acc MGI 1339751
B10	SBM0711116	ENSMUST000000124816.1	Ctla4	ENSMUSG0000026011	cytotoxic T-lymphocyte-associated protein 4 Source MGI Symbol Acc MGI 88556
B11	SBM0998835	ENSMUST000000031327.8	Cxcl1	ENSMUSG0000029380	chemokine (C-X-C motif) ligand 1 Source MGI Symbol Acc MGI 108068
B12	SBM0996179	ENSMUST000000118006.2	Cxcl10	ENSMUSG0000034855	chemokine (C-X-C motif) ligand 10 Source MGI Symbol Acc MGI 1352450
C01	SBM0710486	ENSMUST000000122808.1	Cxcl11	ENSMUSG0000060183	chemokine (C-X-C motif) ligand 11 Source MGI Symbol Acc MGI 1860203
C02	SBM0703161	ENSMUST000000134244.1	Cxcl12	ENSMUSG0000061353	chemokine (C-X-C motif) ligand 12 Source MGI Symbol Acc MGI 103556
C03	SBM0694289	ENSMUST000000075433.7	Cxcl2	ENSMUSG0000058427	chemokine (C-X-C motif) ligand 2 Source MGI Symbol Acc MGI 1340094
C04	SBM0760625	ENSMUST000000202380.1	Cxcl5	ENSMUSG0000029371	chemokine (C-X-C motif) ligand 5 Source MGI Symbol Acc MGI 1096868
C05	SBM0993686	ENSMUST000000113093.4	Cxcl9	ENSMUSG0000029417	chemokine (C-X-C motif) ligand 9 Source MGI Symbol Acc MGI 1352449
C06	SBM1001723	ENSMUST000000190313.1	Cxcr1	ENSMUSG0000048480	chemokine (C-X-C motif) receptor 1 Source MGI Symbol Acc MGI 2448715
C07	SBM0963144	ENSMUST000000106899.3	Cxcr2	ENSMUSG0000026180	chemokine (C-X-C motif) receptor 2 Source MGI Symbol Acc MGI 105303
C08	SBM0682187	ENSMUST000000056614.6	Cxcr3	ENSMUSG0000050232	chemokine (C-X-C motif) receptor 3 Source MGI Symbol Acc MGI 1277207
C09	SBM0923037	ENSMUST000000052172.6	Cxcr4	ENSMUSG0000045382	chemokine (C-X-C motif) receptor 4 Source MGI Symbol Acc MGI 109563
C10	SBM0950831	ENSMUST000000179828.7	Cxcr5	ENSMUSG0000047880	chemokine (C-X-C motif) receptor 5 Source MGI Symbol Acc MGI 103567
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM1005237	197079.4	Egf	000028017	epidermal growth factor Source MGI Symbol Acc MGI 95290
C12	SBM1033270	ENSMUST00000 020329.12	Egfr	ENSMUSG00 000020122	epidermal growth factor receptor Source MGI Symbol Acc MGI 95294
D01	SBM0967876	ENSMUST00000 000834.3	Fasl	ENSMUSG00 000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
D02	SBM0951877	ENSMUST00000 234479.1	Foxp3	ENSMUSG00 000039521	forkhead box P3 Source MGI Symbol Acc MGI 1891436
D03	SBM0826022	ENSMUST00000 029936.4	Gbp2b	ENSMUSG00 000040264	guanylate binding protein 2b Source MGI Symbol Acc MGI 95666
D04	SBM1086274	ENSMUST00000 023897.6	Gzma	ENSMUSG00 000023132	granzyme A Source MGI Symbol Acc MGI 109266
D05	SBM1051832	ENSMUST00000 015581.5	Gzmb	ENSMUSG00 000015437	granzyme B Source MGI Symbol Acc MGI 109267
D06	SBM0768433	ENSMUST00000 173167.7	H2-D1	ENSMUSG00 000073411	histocompatibility 2, D region locus 1 Source MGI Symbol Acc MGI 95896
D07	SBM0869585	ENSMUST00000 025181.17	H2-K1	ENSMUSG00 000061232	histocompatibility 2, K1, K region Source MGI Symbol Acc MGI 95904
D08	SBM1003614	ENSMUST00000 110464.7	Hif1a	ENSMUSG00 000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
D09	SBM0877402	ENSMUST00000 033956.6	Ido1	ENSMUSG00 000031551	indoleamine 2,3-dioxygenase 1 Source MGI Symbol Acc MGI 96416
D10	SBM0903694	ENSMUST00000 068592.4	Ifnf	ENSMUSG00 000055170	interferon gamma Source MGI Symbol Acc MGI 107656
D11	SBM1026650	ENSMUST00000 122386.7	Igf1	ENSMUSG00 000020053	insulin-like growth factor 1 Source MGI Symbol Acc MGI 96432
D12	SBM1004151	ENSMUST00000 016673.5	Il10	ENSMUSG00 000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
E01	SBM0806519	ENSMUST00000 107816.3	Il12a	ENSMUSG00 000027776	interleukin 12a Source MGI Symbol Acc MGI 96539
E02	SBM0957286	ENSMUST00000 102796.9	Il12b	ENSMUSG00 000004296	interleukin 12b Source MGI Symbol Acc MGI 96540
E03	SBM0860496	ENSMUST00000 020650.1	Il13	ENSMUSG00 000020383	interleukin 13 Source MGI Symbol Acc MGI 96541
E04	SBM0737685	ENSMUST00000 034148.6	Il15	ENSMUSG00 000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
E05	SBM1055424	ENSMUST00000 027061.4	Il17a	ENSMUSG00 000025929	interleukin 17A Source MGI Symbol Acc MGI 107364
E06	SBM1007460	ENSMUST00000 028882.1	Il1a	ENSMUSG00 000027399	interleukin 1 alpha Source MGI Symbol Acc MGI 96542
E07	SBM0738485	ENSMUST00000 028881.13	Il1b	ENSMUSG00 000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
E08	SBM1086348	ENSMUST00000 027241.10	Il1r1	ENSMUSG00 000026072	interleukin 1 receptor, type I Source MGI Symbol Acc MGI 96545
E09	SBM0797059	ENSMUST00000 029275.5	Il2	ENSMUSG00 000027720	interleukin 2 Source MGI Symbol Acc MGI 96548
E10	SBM0998851	ENSMUST00000 096691.4	Il22	ENSMUSG00 000074695	interleukin 22 Source MGI Symbol Acc MGI 1355307
E11	SBM0691721	ENSMUST00000 218109.1	Il23a	ENSMUSG00 000025383	interleukin 23, alpha subunit p19 Source MGI Symbol Acc MGI 1932410
E12	SBM0926369	ENSMUST00000 150568.7	Il4	ENSMUSG00 000000869	interleukin 4 Source MGI Symbol Acc MGI 96556
F01	SBM1034588	ENSMUST00000 048605.2	Il5	ENSMUSG00 000036117	interleukin 5 Source MGI Symbol Acc MGI 96557
F02	SBM0742623	ENSMUST00000 026845.11	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
F03	SBM1091850	ENSMUST00000 138913.7	Irf1	ENSMUSG00 000018899	interferon regulatory factor 1 Source MGI Symbol Acc MGI 96590
F04	SBM0685433	ENSMUST00000 105283.8	Kitl	ENSMUSG00 000019966	kit ligand Source MGI Symbol Acc MGI 96974
F05	SBM0802241	ENSMUST00000 218267.1	Mif	ENSMUSG00 000033307	macrophage migration inhibitory factor (glycosylation-inhibiting factor) Source MGI Symbol Acc MGI 96982
F06	SBM0987162	ENSMUST00000 159338.1	Myc	ENSMUSG00 000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
F07	SBM0986804	ENSMUST00000 035092.6	Myd88	ENSMUSG00 000032508	myeloid differentiation primary response gene 88 Source MGI Symbol Acc MGI 108005
F08	SBM0841870	ENSMUST00000 164430.6	Nfkb1	ENSMUSG00 000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
F09	SBM0835086	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
F10	SBM0712538	ENSMUST00000 027507.7	Pdcd1	ENSMUSG00 000026285	programmed cell death 1 Source MGI Symbol Acc MGI 104879

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0782881	ENSMUST00000035065.8	Ptgs2	ENSMUSG00000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
F12	SBM0826950	ENSMUST00000086833.12	Spp1	ENSMUSG00000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
G01	SBM0954168	ENSMUST00000070968.13	Stat1	ENSMUSG00000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063
G02	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG0000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G03	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	SBM0974490	ENSMUST00000029623.10	Tlr2	ENSMUSG00000027995	toll-like receptor 2 Source MGI Symbol Acc MGI 1346060
G05	SBM0964228	ENSMUST000000209772.1	Tlr3	ENSMUSG00000031639	toll-like receptor 3 Source MGI Symbol Acc MGI 2156367
G06	SBM0745293	ENSMUST000000107365.2	Tlr4	ENSMUSG00000039005	toll-like receptor 4 Source MGI Symbol Acc MGI 96824
G07	SBM0901291	ENSMUST000000112164.1	Tlr7	ENSMUSG00000044583	toll-like receptor 7 Source MGI Symbol Acc MGI 2176882
G08	SBM0973468	ENSMUST00000062241.10	Tlr9	ENSMUSG00000045322	toll-like receptor 9 Source MGI Symbol Acc MGI 1932389
G09	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG00000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G10	SBM0969669	ENSMUST00000046383.11	Tnfsf10	ENSMUSG00000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G11	SBM0841427	ENSMUST000000108657.3	Trp53	ENSMUSG00000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G12	SBM1079198	ENSMUST000000217017.1	Vegfa	ENSMUSG00000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
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.

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