

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

Mouse T Cell Anergy & Immune Tolerance

Cat. no. 249950 SBMM-074ZA

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	Btla	Ctla4	Ctla4	Ccr4	Cd27	Cd28	Cd40	Cd40lg	Cd70	Cdk2	Cdk4	Cma1
B	Csf1	Csf2	Ctla4	Dgka	Dgkz	Egr2	Egr3	Eomes	Fos	Fasl	Fos	Foxp1
C	Foxp2	Foxp3	Gata3	Gzmb	Hdac9	Icam1	Icos	Ifng	Il10	Il10ra	Il13	Il15
D	Il17a	Il1a	Il2	Il2ra	Il2rb	Il31	Il4	Il5	Il6	Il7r	Ing4	Irf4
E	Itch	Itga1	Jak1	Jak3	Jun	Lat	Lep	Lgals3	Lta	Mef2a	Nfatc1	Nfatc2
F	Nfatc3	Nr1h3	Nr1h2	Notch1	Pdcd1	Pf1	Prlcg	Ptger2	Ptgs2	Rnf128	Sell	Stat3
G	Stat6	Tbx21	Tgfb1	Tnfrsf10b	Tnfrsf14	Tnfrsf18	Tnfrsf4	Tnfrsf8	Tnfrsf9	Tnfrsf10	Tnfrsf14	Tnfrsf8
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	SBM0803343	ENSMUST00000063654.5	Btla	ENSMUSG0000052013	B and T lymphocyte associated Source MGI Symbol Acc MGI 2658978
A02	SBM0689437	ENSMUST00000114471.2	Cblb	ENSMUSG0000022637	Casitas B-lineage lymphoma b Source MGI Symbol Acc MGI 2146430
A03	SBM0794563	ENSMUST00000001008.5	Ccl3	ENSMUSG0000000982	chemokine (C-C motif) ligand 3 Source MGI Symbol Acc MGI 98260
A04	SBM0824531	ENSMUST00000054414.4	Ccr4	ENSMUSG0000047898	chemokine (C-C motif) receptor 4 Source MGI Symbol Acc MGI 107824
A05	SBM1093198	ENSMUST00000032486.12	Cd27	ENSMUSG0000030336	CD27 antigen Source MGI Symbol Acc MGI 88326
A06	SBM0735565	ENSMUST00000027165.2	Cd28	ENSMUSG0000026012	CD28 antigen Source MGI Symbol Acc MGI 88327
A07	SBM0757957	ENSMUST00000073707.8	Cd40	ENSMUSG0000017652	CD40 antigen Source MGI Symbol Acc MGI 88336
A08	SBM0708134	ENSMUST00000033466.1	Cd40lg	ENSMUSG0000031132	CD40 ligand Source MGI Symbol Acc MGI 88337
A09	SBM0822094	ENSMUST00000019633.7	Cd70	ENSMUSG0000019489	CD70 antigen Source MGI Symbol Acc MGI 1195273
A10	SBM1030284	ENSMUST000000219601.1	Cdk2	ENSMUSG0000025358	cyclin-dependent kinase 2 Source MGI Symbol Acc MGI 104772
A11	SBM0702559	ENSMUST000000120226.7	Cdk4	ENSMUSG0000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
A12	SBM0775236	ENSMUST000000226280.1	Cma1	ENSMUSG0000022225	chymase 1, mast cell Source MGI Symbol Acc MGI 96941
B01	SBM0903322	ENSMUST00000015557.1	Csf1	ENSMUSG0000014599	colony stimulating factor 1 (macrophage) Source MGI Symbol Acc MGI 1339753
B02	SBM1080991	ENSMUST00000019060.5	Csf2	ENSMUSG0000018916	colony stimulating factor 2 (granulocyte-macrophage) Source MGI Symbol Acc MGI 1339752
B03	SBM0711116	ENSMUST000000124816.1	Ctla4	ENSMUSG0000026011	cytotoxic T-lymphocyte-associated protein 4 Source MGI Symbol Acc MGI 88556
B04	SBM0846736	ENSMUST00000026414.8	Dgka	ENSMUSG0000025357	diacylglycerol kinase, alpha Source MGI Symbol Acc MGI 102952
B05	SBM1054392	ENSMUST000000111303.1	Dgkz	ENSMUSG0000040479	diacylglycerol kinase zeta Source MGI Symbol Acc MGI 1278339
B06	SBM0767336	ENSMUST000000145936.1	Egr2	ENSMUSG0000037868	early growth response 2 Source MGI Symbol Acc MGI 95296
B07	SBM0735904	ENSMUST00000035908.2	Egr3	ENSMUSG0000033730	early growth response 3 Source MGI Symbol Acc MGI 1306780
B08	SBM0847241	ENSMUST00000035020.14	Eomes	ENSMUSG0000032446	eomesodermin Source MGI Symbol Acc MGI 1201683
B09	SBM0856649	ENSMUST000000112472.3	Fas	ENSMUSG0000024778	Fas (TNF receptor superfamily member 6) Source MGI Symbol Acc MGI 95484
B10	SBM0967876	ENSMUST00000000834.3	Fasl	ENSMUSG0000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
B11	SBM0977461	ENSMUST000000134311.1	Fos	ENSMUSG0000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
B12	SBM0819007	ENSMUST000000177437.7	Foxp1	ENSMUSG0000030067	forkhead box P1 Source MGI Symbol Acc MGI 1914004
C01	SBM0990172	ENSMUST000000131414.7	Foxp2	ENSMUSG0000029563	forkhead box P2 Source MGI Symbol Acc MGI 2148705
C02	SBM0951877	ENSMUST000000234479.1	Foxp3	ENSMUSG0000039521	forkhead box P3 Source MGI Symbol Acc MGI 1891436
C03	SBM0782281	ENSMUST000000147533.1	Gata3	ENSMUSG0000015619	GATA binding protein 3 Source MGI Symbol Acc MGI 95663
C04	SBM1051832	ENSMUST00000015581.5	Gzmb	ENSMUSG0000015437	granzyme B Source MGI Symbol Acc MGI 109267
C05	SBM0813970	ENSMUST000000209902.1	Hdac9	ENSMUSG0000004698	histone deacetylase 9 Source MGI Symbol Acc MGI 1931221
C06	SBM0806584	ENSMUST000000215003.1	Icam1	ENSMUSG0000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
C07	SBM0702277	ENSMUST00000027162.11	Icos	ENSMUSG0000026009	inducible T cell co-stimulator Source MGI Symbol Acc MGI 1858745
C08	SBM0903694	ENSMUST00000068592.4	Iifng	ENSMUSG0000055170	interferon gamma Source MGI Symbol Acc MGI 107656
C09	SBM1004151	ENSMUST00000016673.5	Il10	ENSMUSG0000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
C10	SBM0888395	ENSMUST000000176808.1	Il10ra	ENSMUSG0000032089	interleukin 10 receptor, alpha Source MGI Symbol Acc MGI 96538
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0860496	020650.1	Il13	000020383	interleukin 13 Source MGI Symbol Acc MGI 96541
C12	SBM0737685	ENSMUST00000 034148.6	Il15	ENSMUSG00 000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
D01	SBM1055424	ENSMUST00000 027061.4	Il17a	ENSMUSG00 000025929	interleukin 17A Source MGI Symbol Acc MGI 107364
D02	SBM1007460	ENSMUST00000 028882.1	Il1a	ENSMUSG00 000027399	interleukin 1 alpha Source MGI Symbol Acc MGI 96542
D03	SBM0797059	ENSMUST00000 029275.5	Il2	ENSMUSG00 000027720	interleukin 2 Source MGI Symbol Acc MGI 96548
D04	SBM1067326	ENSMUST00000 028111.5	Il2ra	ENSMUSG00 000026770	interleukin 2 receptor, alpha chain Source MGI Symbol Acc MGI 96549
D05	SBM1056230	ENSMUST00000 163494.2	Il2rb	ENSMUSG00 000068227	interleukin 2 receptor, beta chain Source MGI Symbol Acc MGI 96550
D06	SBM1018495	ENSMUST00000 198901.1	Il31	ENSMUSG00 000029437	interleukin 31 Source MGI Symbol Acc MGI 1923649
D07	SBM0926369	ENSMUST00000 150568.7	Il4	ENSMUSG00 000000869	interleukin 4 Source MGI Symbol Acc MGI 96556
D08	SBM1034588	ENSMUST00000 048605.2	Il5	ENSMUSG00 000036117	interleukin 5 Source MGI Symbol Acc MGI 96557
D09	SBM0742623	ENSMUST00000 026845.11	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D10	SBM0796500	ENSMUST00000 003981.5	Il7r	ENSMUSG00 000003882	interleukin 7 receptor Source MGI Symbol Acc MGI 96562
D11	SBM0959440	ENSMUST00000 140131.7	Ing4	ENSMUSG00 000030330	inhibitor of growth family, member 4 Source MGI Symbol Acc MGI 107307
D12	SBM0761311	ENSMUST00000 021784.9	Irf4	ENSMUSG00 000021356	interferon regulatory factor 4 Source MGI Symbol Acc MGI 1096873
E01	SBM1012404	ENSMUST00000 138468.7	Itch	ENSMUSG00 000027598	itchy, E3 ubiquitin protein ligase Source MGI Symbol Acc MGI 1202301
E02	SBM0802692	ENSMUST00000 061673.8	Itga1	ENSMUSG00 000042284	integrin alpha 1 Source MGI Symbol Acc MGI 96599
E03	SBM0792684	ENSMUST00000 155328.7	Jak1	ENSMUSG00 000028530	Janus kinase 1 Source MGI Symbol Acc MGI 96628
E04	SBM0924872	ENSMUST00000 051995.13	Jak3	ENSMUSG00 000031805	Janus kinase 3 Source MGI Symbol Acc MGI 99928
E05	SBM1045409	ENSMUST00000 107094.1	Jun	ENSMUSG00 000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
E06	SBM0775795	ENSMUST00000 206731.1	Lat	ENSMUSG00 000030742	linker for activation of T cells Source MGI Symbol Acc MGI 1342293
E07	SBM0718370	ENSMUST00000 169505.1	Lep	ENSMUSG00 000059201	leptin Source MGI Symbol Acc MGI 104663
E08	SBM0732602	ENSMUST00000 146468.3	Lgals3	ENSMUSG00 000050335	lectin, galactose binding, soluble 3 Source MGI Symbol Acc MGI 96778
E09	SBM0790437	ENSMUST00000 025266.5	Lta	ENSMUSG00 000024402	lymphotoxin A Source MGI Symbol Acc MGI 104797
E10	SBM0912123	ENSMUST00000 072460.12	Mef2a	ENSMUSG00 000030557	myocyte enhancer factor 2A Source MGI Symbol Acc MGI 99532
E11	SBM1038763	ENSMUST00000 078049.11	Nfatc1	ENSMUSG00 000033016	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 1 Source MGI Symbol Acc MGI 102469
E12	SBM0850906	ENSMUST00000 099067.9	Nfatc2	ENSMUSG00 000027544	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 2 Source MGI Symbol Acc MGI 102463
F01	SBM1071895	ENSMUST00000 212936.1	Nfatc3	ENSMUSG00 000031902	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 3 Source MGI Symbol Acc MGI 103296
F02	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
F03	SBM0733086	ENSMUST00000 198675.1	Nhlh2	ENSMUSG00 000048540	nescient helix loop helix 2 Source MGI Symbol Acc MGI 97324
F04	SBM1060528	ENSMUST00000 132820.1	Notch1	ENSMUSG00 000026923	notch 1 Source MGI Symbol Acc MGI 97363
F05	SBM0712538	ENSMUST00000 027507.7	Pdcd1	ENSMUSG00 000026285	programmed cell death 1 Source MGI Symbol Acc MGI 104879
F06	SBM1040821	ENSMUST00000 219375.1	Prf1	ENSMUSG00 000037202	perforin 1 (pore forming protein) Source MGI Symbol Acc MGI 97551
F07	SBM1062071	ENSMUST00000 100301.10	Prkcg	ENSMUSG00 000078816	protein kinase C, gamma Source MGI Symbol Acc MGI 97597
F08	SBM1019802	ENSMUST00000 046891.5	Ptger2	ENSMUSG00 000037759	prostaglandin E receptor 2 (subtype EP2) Source MGI Symbol Acc MGI 97794
F09	SBM0782881	ENSMUST00000 035065.8	Ptgs2	ENSMUSG00 000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
F10	SBM0960876	ENSMUST00000 113026.1	Rnf128	ENSMUSG00 000031438	ring finger protein 128 Source MGI Symbol Acc MGI 1914139

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0975834	ENSMUST00000097491.9	Sell	ENSMUSG0000026581	selectin, lymphocyte Source MGI Symbol Acc MGI 98279
F12	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG0000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G01	SBM0912507	ENSMUST00000156231.1	Stat6	ENSMUSG0000002147	signal transducer and activator of transcription 6 Source MGI Symbol Acc MGI 103034
G02	SBM1024821	ENSMUST00000001484.2	Tbx21	ENSMUSG0000001444	T-box 21 Source MGI Symbol Acc MGI 1888984
G03	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	SBM0809431	ENSMUST00000224533.1	Tnfrsf10b	ENSMUSG00000022074	tumor necrosis factor receptor superfamily, member 10b Source MGI Symbol Acc MGI 1341090
G05	SBM0771210	ENSMUST00000152687.7	Tnfrsf14	ENSMUSG0000042333	tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) Source MGI Symbol Acc MGI 2675303
G06	SBM0722301	ENSMUST00000122001.2	Tnfrsf18	ENSMUSG0000041954	tumor necrosis factor receptor superfamily, member 18 Source MGI Symbol Acc MGI 894675
G07	SBM0900193	ENSMUST00000143576.1	Tnfrsf4	ENSMUSG0000029075	tumor necrosis factor receptor superfamily, member 4 Source MGI Symbol Acc MGI 104512
G08	SBM0814576	ENSMUST00000123027.1	Tnfrsf8	ENSMUSG0000028602	tumor necrosis factor receptor superfamily, member 8 Source MGI Symbol Acc MGI 99908
G09	SBM0840758	ENSMUST00000060901.10	Tnfrsf9	ENSMUSG0000028965	tumor necrosis factor receptor superfamily, member 9 Source MGI Symbol Acc MGI 1101059
G10	SBM0969669	ENSMUST00000046383.11	Tnfsf10	ENSMUSG0000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G11	SBM0681467	ENSMUST00000005976.7	Tnfsf14	ENSMUSG0000005824	tumor necrosis factor (ligand) superfamily, member 14 Source MGI Symbol Acc MGI 1355317
G12	SBM0953038	ENSMUST00000030047.2	Tnfsf8	ENSMUSG0000028362	tumor necrosis factor (ligand) superfamily, member 8 Source MGI Symbol Acc MGI 88328
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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