

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

## Mouse T-Cell & B-Cell Activation

Cat. no. 249955 UPMM-053ZA

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light 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 Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

### Panel layout (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA Probe PCR 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	Ada	Apc	Bad	Bcl2	Blim	Casp3	Cblb	Ccnd3	Cd1d1	Cd2	Cd28	Cd38
B	Cd3d	Cd3e	Cd3g	Cd4	Cd40	Cd40lg	Cd47	Cd48	Cd74	Cd79a	Cd81	Cd8a
C	Cd8b1	Cdkn1a	Cr2	Csf1	Csf2	Ctla4	Cxcl12	Cxcr4	Cxcr5	Dpp4	Egr1	Fit3
D	Foxp3	H60b	Hsp90aa1	Icam1	Icosl	Ifng	Il10	Il11	Il12b	Il15	Il18	Il1b
E	Il27	Il2ra	Il4	Il6	Il7	Irf4	Lag3	Lck	Map3k7	Ms4a1	Nck1	Nos2
F	Nr3c1	Pdcd1lg2	Pik3r1	Prkcd	Prkca	Ptprc	Rag1	Relb	Ripk2	Socs1	Spp1	Tgfb1
G	Thy1	Tlr1	Tlr4	Tlr6	Tnfrsf13b	Tnfrsf13c	Tnfrsf13b	Tnfrsf14	Traf6	Trp53	Vav1	Was
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM085136 3	ENSMUST00000 017841.3	Ada	ENSMUSG00 000017697	adenosine deaminase Source MGI Symbol Acc MGI 87916
A02	UPFM082281 4	ENSMUST00000 163295.1	Apc	ENSMUSG00 000005871	APC, WNT signaling pathway regulator Source MGI Symbol Acc MGI 88039
A03	UPFM070030 3	ENSMUST00000 025910.12	Bad	ENSMUSG00 000024959	BCL2-associated agonist of cell death Source MGI Symbol Acc MGI 1096330
A04	UPFM063585 3	ENSMUST00000 112751.1	Bcl2	ENSMUSG00 000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A05	UPFM079013 4	ENSMUST00000 081314.10	Blm	ENSMUSG00 000030528	Bloom syndrome, RecQ like helicase Source MGI Symbol Acc MGI 1328362
A06	UPFM072895 1	ENSMUST00000 210534.1	Casp3	ENSMUSG00 000031628	caspase 3 Source MGI Symbol Acc MGI 107739
A07	UPFM086952 7	ENSMUST00000 227879.1	Cblb	ENSMUSG00 000022637	Casitas B-lineage lymphoma b Source MGI Symbol Acc MGI 2146430
A08	UPFM069203 1	ENSMUST00000 182848.7	Ccnd3	ENSMUSG00 000034165	cyclin D3 Source MGI Symbol Acc MGI 88315
A09	UPFM062443 5	ENSMUST00000 063869.10	Cd1d1	ENSMUSG00 000028076	CD1d1 antigen Source MGI Symbol Acc MGI 107674
A10	UPFM072120 0	ENSMUST00000 152321.1	Cd2	ENSMUSG00 000027863	CD2 antigen Source MGI Symbol Acc MGI 88320
A11	UPFM073617 9	ENSMUST00000 153207.1	Cd28	ENSMUSG00 000026012	CD28 antigen Source MGI Symbol Acc MGI 88327
A12	UPFM074494 4	ENSMUST00000 030964.5	Cd38	ENSMUSG00 000029084	CD38 antigen Source MGI Symbol Acc MGI 107474
B01	UPFM076827 6	ENSMUST00000 034602.8	Cd3d	ENSMUSG00 000032094	CD3 antigen, delta polypeptide Source MGI Symbol Acc MGI 88331
B02	UPFM082079 4	ENSMUST00000 214582.1	Cd3e	ENSMUSG00 000032093	CD3 antigen, epsilon polypeptide Source MGI Symbol Acc MGI 88332
B03	UPFM087776 9	ENSMUST00000 160886.1	Cd3g	ENSMUSG00 000002033	CD3 antigen, gamma polypeptide Source MGI Symbol Acc MGI 88333
B04	UPFM075548 7	ENSMUST00000 145818.1	Cd4	ENSMUSG00 000023274	CD4 antigen Source MGI Symbol Acc MGI 88335
B05	UPFM072215 7	ENSMUST00000 153105.1	Cd40	ENSMUSG00 000017652	CD40 antigen Source MGI Symbol Acc MGI 88336
B06	UPFM091836 0	ENSMUST00000 033466.1	Cd40lg	ENSMUSG00 000031132	CD40 ligand Source MGI Symbol Acc MGI 88337
B07	UPFM085259 4	ENSMUST00000 230836.1	Cd47	ENSMUSG00 000055447	CD47 antigen (Rh-related antigen, integrin-associated signal transducer) Source MGI Symbol Acc MGI 96617
B08	UPFM061888 4	ENSMUST00000 068584.6	Cd48	ENSMUSG00 000015355	CD48 antigen Source MGI Symbol Acc MGI 88339
B09	UPFM079020 0	ENSMUST00000 050487.15	Cd74	ENSMUSG00 000024610	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated) Source MGI Symbol Acc MGI 96534
B10	UPFM075213 2	ENSMUST00000 003469.7	Cd79a	ENSMUSG00 000003379	CD79A antigen (immunoglobulin-associated alpha) Source MGI Symbol Acc MGI 101774
B11	UPFM063414 1	ENSMUST00000 037941.9	Cd81	ENSMUSG00 000037706	CD81 antigen Source MGI Symbol Acc MGI 1096398
B12	UPFM078336 6	ENSMUST00000 205054.1	Cd8a	ENSMUSG00 000053977	CD8 antigen, alpha chain Source MGI Symbol Acc MGI 88346
C01	UPFM090571 3	ENSMUST00000 065248.8	Cd8b1	ENSMUSG00 000053044	CD8 antigen, beta chain 1 Source MGI Symbol Acc MGI 88347
C02	UPFM086779 1	ENSMUST00000 122348.2	Cdkn1a	ENSMUSG00 000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
C03	UPFM078755 5	ENSMUST00000 195737.1	Cr2	ENSMUSG00 000026616	complement receptor 2 Source MGI Symbol Acc MGI 88489
C04	UPFM064393 3	ENSMUST00000 155557.1	Csf1	ENSMUSG00 000014599	colony stimulating factor 1 (macrophage) Source MGI Symbol Acc MGI 1339753
C05	UPFM064031 3	ENSMUST00000 019060.5	Csf2	ENSMUSG00 000018916	colony stimulating factor 2 (granulocyte-macrophage) Source MGI Symbol Acc MGI 1339752
C06	UPFM090439 4	ENSMUST00000 027164.8	Ctla4	ENSMUSG00 000026011	cytotoxic T-lymphocyte-associated protein 4 Source MGI Symbol Acc MGI 88556
C07	UPFM084136 8	ENSMUST00000 112871.7	Cxcl12	ENSMUSG00 000061353	chemokine (C-X-C motif) ligand 12 Source MGI Symbol Acc MGI 103556
C08	UPFM077457 5	ENSMUST00000 052172.6	Cxcr4	ENSMUSG00 000045382	chemokine (C-X-C motif) receptor 4 Source MGI Symbol Acc MGI 109563
C09	UPFM061992 1	ENSMUST00000 215661.1	Cxcr5	ENSMUSG00 000047880	chemokine (C-X-C motif) receptor 5 Source MGI Symbol Acc MGI 103567
C10	UPFM077525 3	ENSMUST00000 149306.1	Dpp4	ENSMUSG00 000035000	dipeptidylpeptidase 4 Source MGI Symbol Acc MGI 94919
	UPFM085434	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	3	165033.1	Egr1	000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
C12	UPFM077283 1	ENSMUST00000 049324.12	Fli3	ENSMUSG00 000042817	FMS-like tyrosine kinase 3 Source MGI Symbol Acc MGI 95559
D01	UPFM072970 2	ENSMUST00000 234479.1	Foxp3	ENSMUSG00 000039521	forkhead box P3 Source MGI Symbol Acc MGI 1891436
D02	UPFM085976 9	ENSMUST00000 131558.1	H60b	ENSMUSG00 000075297	histocompatibility 60b Source MGI Symbol Acc MGI 3649078
D03	UPFM099789 5	ENSMUST00000 155242.7	Hsp90aa1	ENSMUSG00 000021270	heat shock protein 90, alpha (cytosolic), class A member 1 Source MGI Symbol Acc MGI 96250
D04	UPFM084326 4	ENSMUST00000 215003.1	Icam1	ENSMUSG00 000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
D05	UPFM070806 8	ENSMUST00000 219038.1	Icosl	ENSMUSG00 000000732	icos ligand Source MGI Symbol Acc MGI 1354701
D06	UPFM117295 0	ENSMUST00000 068592.4	Ifnf	ENSMUSG00 000055170	interferon gamma Source MGI Symbol Acc MGI 107656
D07	UPFM117295 1	ENSMUST00000 016673.5	Il10	ENSMUSG00 000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
D08	UPFM083567 7	ENSMUST00000 163481.2	Il11	ENSMUSG00 000004371	interleukin 11 Source MGI Symbol Acc MGI 107613
D09	UPFM078502 0	ENSMUST00000 170513.2	Il12b	ENSMUSG00 000004296	interleukin 12b Source MGI Symbol Acc MGI 96540
D10	UPFM090675 6	ENSMUST00000 209687.1	Il15	ENSMUSG00 000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
D11	UPFM093943 0	ENSMUST00000 180021.1	Il18	ENSMUSG00 000039217	interleukin 18 Source MGI Symbol Acc MGI 107936
D12	UPFM067128 1	ENSMUST00000 155994.1	Il1b	ENSMUSG00 000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
E01	UPFM117295 5	ENSMUST00000 058429.5	Il27	ENSMUSG00 000044701	interleukin 27 Source MGI Symbol Acc MGI 2384409
E02	UPFM092234 6	ENSMUST00000 028111.5	Il2ra	ENSMUSG00 000026770	interleukin 2 receptor, alpha chain Source MGI Symbol Acc MGI 96549
E03	UPFM095925 1	ENSMUST00000 150568.7	Il4	ENSMUSG00 000000869	interleukin 4 Source MGI Symbol Acc MGI 96556
E04	UPFM072909 9	ENSMUST00000 195978.4	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
E05	UPFM091608 1	ENSMUST00000 194279.5	Il7	ENSMUSG00 000040329	interleukin 7 Source MGI Symbol Acc MGI 96561
E06	UPFM073649 8	ENSMUST00000 110307.2	Irf4	ENSMUSG00 000021356	interferon regulatory factor 4 Source MGI Symbol Acc MGI 1096873
E07	UPFM064565 6	ENSMUST00000 032217.1	Lag3	ENSMUSG00 000030124	lymphocyte-activation gene 3 Source MGI Symbol Acc MGI 106588
E08	UPFM088042 5	ENSMUST00000 132030.1	Lck	ENSMUSG00 000000409	lymphocyte protein tyrosine kinase Source MGI Symbol Acc MGI 96756
E09	UPFM069246 5	ENSMUST00000 126632.7	Map3k7	ENSMUSG00 000028284	mitogen-activated protein kinase kinase kinase 7 Source MGI Symbol Acc MGI 1346877
E10	UPFM072700 1	ENSMUST00000 169159.2	Ms4a1	ENSMUSG00 000024673	membrane-spanning 4-domains, subfamily A, member 1 Source MGI Symbol Acc MGI 88321
E11	UPFM093021 5	ENSMUST00000 112874.3	Nck1	ENSMUSG00 000032475	non-catalytic region of tyrosine kinase adaptor protein 1 Source MGI Symbol Acc MGI 109601
E12	UPFM076964 2	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
F01	UPFM075838 6	ENSMUST00000 097592.8	Nr3c1	ENSMUSG00 000024431	nuclear receptor subfamily 3, group C, member 1 Source MGI Symbol Acc MGI 95824
F02	UPFM096793 7	ENSMUST00000 235164.1	Pdcd1lg2	ENSMUSG00 000016498	programmed cell death 1 ligand 2 Source MGI Symbol Acc MGI 1930125
F03	UPFM073586 5	ENSMUST00000 185795.1	Pik3r1	ENSMUSG00 000041417	phosphoinositide-3-kinase regulatory subunit 1 Source MGI Symbol Acc MGI 97583
F04	UPFM081230 3	ENSMUST00000 135714.2	Prkcd	ENSMUSG00 000021948	protein kinase C, delta Source MGI Symbol Acc MGI 97598
F05	UPFM087214 7	ENSMUST00000 114853.7	Prkcq	ENSMUSG00 000026778	protein kinase C, theta Source MGI Symbol Acc MGI 97601
F06	UPFM080782 6	ENSMUST00000 112036.4	Ptprc	ENSMUSG00 000026395	protein tyrosine phosphatase, receptor type, C Source MGI Symbol Acc MGI 97810
F07	UPFM117296 1	ENSMUST00000 078494.5	Rag1	ENSMUSG00 000061311	recombination activating gene 1 Source MGI Symbol Acc MGI 97848
F08	UPFM097089 6	ENSMUST00000 098754.4	Relb	ENSMUSG00 000002983	avian reticuloendotheliosis viral (v-rel) oncogene related B Source MGI Symbol Acc MGI 103289
F09	UPFM074500 8	ENSMUST00000 183871.1	Ripk2	ENSMUSG00 000041135	receptor (TNFRSF)-interacting serine-threonine kinase 2 Source MGI Symbol Acc MGI 1891456
F10	UPFM065177 1	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	UPFM075924 9	ENSMUST00000 112746.7	Spp1	ENSMUSG00 000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
F12	UPFM066688 0	ENSMUST00000 171757.1	Tgfb1	ENSMUSG00 000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G01	UPFM101144 2	ENSMUST00000 215156.1	Thy1	ENSMUSG00 000032011	thymus cell antigen 1, theta Source MGI Symbol Acc MGI 98747
G02	UPFM067494 2	ENSMUST00000 059349.5	Tlr1	ENSMUSG00 000044827	toll-like receptor 1 Source MGI Symbol Acc MGI 1341295
G03	UPFM075034 5	ENSMUST00000 107365.2	Tlr4	ENSMUSG00 000039005	toll-like receptor 4 Source MGI Symbol Acc MGI 96824
G04	UPFM082131 4	ENSMUST00000 201307.1	Tlr6	ENSMUSG00 000051498	toll-like receptor 6 Source MGI Symbol Acc MGI 1341296
G05	UPFM077843 9	ENSMUST00000 010286.7	Tnfrsf13b	ENSMUSG00 000010142	tumor necrosis factor receptor superfamily, member 13b Source MGI Symbol Acc MGI 1889411
G06	UPFM086943 8	ENSMUST00000 109535.2	Tnfrsf13c	ENSMUSG00 000068105	tumor necrosis factor receptor superfamily, member 13c Source MGI Symbol Acc MGI 1919299
G07	UPFM072318 1	ENSMUST00000 033892.8	Tnfrsf13b	ENSMUSG00 000031497	tumor necrosis factor (ligand) superfamily, member 13b Source MGI Symbol Acc MGI 1344376
G08	UPFM117296 5	ENSMUST00000 005976.7	Tnfrsf14	ENSMUSG00 00005824	tumor necrosis factor (ligand) superfamily, member 14 Source MGI Symbol Acc MGI 1355317
G09	UPFM076055 2	ENSMUST00000 144063.1	Traf6	ENSMUSG00 000027164	TNF receptor-associated factor 6 Source MGI Symbol Acc MGI 108072
G10	UPFM066913 3	ENSMUST00000 171247.7	Trp53	ENSMUSG00 000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G11	UPFM100311 5	ENSMUST00000 005889.15	Vav1	ENSMUSG00 000034116	vav 1 oncogene Source MGI Symbol Acc MGI 98923
G12	UPFM067953 5	ENSMUST00000 146029.1	Was	ENSMUSG00 000031165	Wiskott-Aldrich syndrome Source MGI Symbol Acc MGI 105059
H01	UPFM113294 6	ENSMUST00000 163829.1	Actb	ENSMUSG00 000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM113294 7	ENSMUST00000 102476.4	B2m	ENSMUSG00 000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM113294 8	ENSMUST00000 117757.8	Gapdh	ENSMUSG00 000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM113294 9	ENSMUST00000 026613.13	Gusb	ENSMUSG00 000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM113295 0	ENSMUST00000 166469.7	Hsp90ab1	ENSMUSG00 000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM112660 9	UPL_MGDC	MGDC	UPL_MGDC	Mouse Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
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 Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe 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	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208252

\*Larger kit sizes available.

The QuantiNova LNA Probe 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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