

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

## Mouse Type I Interferon Response

Cat. no. 249955 UPMM-016ZA

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	Adar	Bag3	Bst2	Casp1	Cav1	Ccl2	Ccl4	Ccl5	Cd69	Cd70	Cd80	Cd86
B	Cdkn1b	Ctla4	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	Ifna2	Ifna4
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 Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM062735 6	ENSMUST00000 118341.5	Adar	ENSMUSG00 000027951	adenosine deaminase, RNA-specific Source MGI Symbol Acc MGI 1889575
A02	UPFM072585 2	ENSMUST00000 033136.8	Bag3	ENSMUSG00 000030847	BCL2-associated athanogene 3 Source MGI Symbol Acc MGI 1352493
A03	UPFM074048 0	ENSMUST00000 051672.8	Bst2	ENSMUSG00 000046718	bone marrow stromal cell antigen 2 Source MGI Symbol Acc MGI 1916800
A04	UPFM095374 8	ENSMUST00000 027015.5	Casp1	ENSMUSG00 000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A05	UPFM094042 8	ENSMUST00000 150901.1	Cav1	ENSMUSG00 000007655	caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709
A06	UPFM094573 3	ENSMUST00000 124479.1	Ccl2	ENSMUSG00 000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
A07	UPFM085192 5	ENSMUST00000 019074.3	Ccl4	ENSMUSG00 000018930	chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261
A08	UPFM078318 2	ENSMUST00000 035938.2	Ccl5	ENSMUSG00 000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A09	UPFM090692 3	ENSMUST00000 205190.2	Cd69	ENSMUSG00 000030156	CD69 antigen Source MGI Symbol Acc MGI 88343
A10	UPFM100648 5	ENSMUST00000 019633.7	Cd70	ENSMUSG00 000019489	CD70 antigen Source MGI Symbol Acc MGI 1195273
A11	UPFM091778 2	ENSMUST00000 099816.2	Cd80	ENSMUSG00 000075122	CD80 antigen Source MGI Symbol Acc MGI 101775
A12	UPFM099543 4	ENSMUST00000 089620.10	Cd86	ENSMUSG00 000022901	CD86 antigen Source MGI Symbol Acc MGI 101773
B01	UPFM072528 3	ENSMUST00000 204807.1	Cdkn1b	ENSMUSG00 000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
B02	UPFM093080 6	ENSMUST00000 230146.1	Ciita	ENSMUSG00 000022504	class II transactivator Source MGI Symbol Acc MGI 108445
B03	UPFM086677 3	ENSMUST00000 038495.4	Crp	ENSMUSG00 000037942	C-reactive protein, pentraxin-related Source MGI Symbol Acc MGI 88512
B04	UPFM098980 6	ENSMUST00000 038816.12	Cxcl10	ENSMUSG00 000034855	chemokine (C-X-C motif) ligand 10 Source MGI Symbol Acc MGI 1352450
B05	UPFM068634 3	ENSMUST00000 139583.7	Ddx58	ENSMUSG00 000040296	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58 Source MGI Symbol Acc MGI 2442858
B06	UPFM078422 5	ENSMUST00000 171852.1	Eif2ak2	ENSMUSG00 000024079	eukaryotic translation initiation factor 2-alpha kinase 2 Source MGI Symbol Acc MGI 1353449
B07	UPFM100546 3	ENSMUST00000 029936.4	Gbp2b	ENSMUSG00 000040264	guanylate binding protein 2b Source MGI Symbol Acc MGI 95666
B08	UPFM065852 9	ENSMUST00000 183560.7	H2-BI	ENSMUSG00 000073406	histocompatibility 2, blastocyst Source MGI Symbol Acc MGI 892004
B09	UPFM099422 1	ENSMUST00000 173167.7	H2-D1	ENSMUSG00 000073411	histocompatibility 2, D region locus 1 Source MGI Symbol Acc MGI 95896
B10	UPFM082505 2	ENSMUST00000 025181.17	H2-K1	ENSMUSG00 000061232	histocompatibility 2, K1, K region Source MGI Symbol Acc MGI 95904
B11	UPFM064831 5	ENSMUST00000 025322.13	H2-M10.1	ENSMUSG00 000024448	histocompatibility 2, M region locus 10.1 Source MGI Symbol Acc MGI 1276522
B12	UPFM099482 5	ENSMUST00000 038580.6	H2-M3	ENSMUSG00 000016206	histocompatibility 2, M region locus 3 Source MGI Symbol Acc MGI 95915
C01	UPFM088135 0	ENSMUST00000 166442.2	H2-T10	ENSMUSG00 000079491	histocompatibility 2, T region locus 10 Source MGI Symbol Acc MGI 95942
C02	UPFM093499 7	ENSMUST00000 111214.3	Ifi204	ENSMUSG00 000073489	interferon activated gene 204 Source MGI Symbol Acc MGI 96429
C03	UPFM065299 7	ENSMUST00000 034299.5	Ifi30	ENSMUSG00 000031838	interferon gamma inducible protein 30 Source MGI Symbol Acc MGI 2137648
C04	UPFM070359 8	ENSMUST00000 028259.11	Ifih1	ENSMUSG00 000026896	interferon induced with helicase C domain 1 Source MGI Symbol Acc MGI 1918836
C05	UPFM081305 3	ENSMUST00000 102824.3	Ifit1	ENSMUSG00 000034459	interferon-induced protein with tetratricopeptide repeats 1 Source MGI Symbol Acc MGI 99450
C06	UPFM066275 0	ENSMUST00000 102826.3	Ifit2	ENSMUSG00 000045932	interferon-induced protein with tetratricopeptide repeats 2 Source MGI Symbol Acc MGI 99449
C07	UPFM065877 0	ENSMUST00000 102825.3	Ifit3	ENSMUSG00 000074896	interferon-induced protein with tetratricopeptide repeats 3 Source MGI Symbol Acc MGI 1101055
C08	UPFM079790 7	ENSMUST00000 106040.7	Ifitm1	ENSMUSG00 000025491	interferon induced transmembrane protein 1 Source MGI Symbol Acc MGI 1915963
C09	UPFM087156 3	ENSMUST00000 081649.9	Ifitm2	ENSMUSG00 000060591	interferon induced transmembrane protein 2 Source MGI Symbol Acc MGI 1933382
C10	UPFM094532 8	ENSMUST00000 026565.6	Ifitm3	ENSMUSG00 000025492	interferon induced transmembrane protein 3 Source MGI Symbol Acc MGI 1913391
	UPFM071862	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	7	105147.1	Ifna2	000078354	interferon alpha 2 Source MGI Symbol Acc MGI 107666
C12	UPFM098483 2	ENSMUST00000 094973.4	Ifna4	ENSMUSG00 000070904	interferon alpha 4 Source MGI Symbol Acc MGI 107664
D01	UPFM070304 1	ENSMUST00000 123196.8	Ifnar1	ENSMUSG00 000022967	interferon (alpha and beta) receptor 1 Source MGI Symbol Acc MGI 107658
D02	UPFM095391 3	ENSMUST00000 023693.13	Ifnar2	ENSMUSG00 000022971	interferon (alpha and beta) receptor 2 Source MGI Symbol Acc MGI 1098243
D03	UPFM063944 2	ENSMUST00000 055671.4	Ifnb1	ENSMUSG00 000048806	interferon beta 1, fibroblast Source MGI Symbol Acc MGI 107657
D04	UPFM068016 4	ENSMUST00000 056014.2	Ifne	ENSMUSG00 000045364	interferon epsilon Source MGI Symbol Acc MGI 2667156
D05	UPFM094971 2	ENSMUST00000 105144.1	Ifnz	ENSMUSG00 000096854	interferon zeta Source MGI Symbol Acc MGI 2448469
D06	UPFM117295 1	ENSMUST00000 016673.5	Il10	ENSMUSG00 000016529	interleukin 10 Source MGI Symbol Acc MGI 96537
D07	UPFM090675 6	ENSMUST00000 209687.1	Il15	ENSMUSG00 000031712	interleukin 15 Source MGI Symbol Acc MGI 103014
D08	UPFM072909 9	ENSMUST00000 195978.4	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D09	UPFM062425 2	ENSMUST00000 142221.7	Irf1	ENSMUSG00 000018899	interferon regulatory factor 1 Source MGI Symbol Acc MGI 96590
D10	UPFM082993 0	ENSMUST00000 207571.2	Irf2	ENSMUSG00 000031627	interferon regulatory factor 2 Source MGI Symbol Acc MGI 96591
D11	UPFM097246 1	ENSMUST00000 207521.1	Irf3	ENSMUSG00 000003184	interferon regulatory factor 3 Source MGI Symbol Acc MGI 1859179
D12	UPFM079524 6	ENSMUST00000 164922.2	Irf5	ENSMUSG00 000029771	interferon regulatory factor 5 Source MGI Symbol Acc MGI 1350924
E01	UPFM089456 5	ENSMUST00000 123525.1	Irf7	ENSMUSG00 000025498	interferon regulatory factor 7 Source MGI Symbol Acc MGI 1859212
E02	UPFM070945 4	ENSMUST00000 226275.1	Irf9	ENSMUSG00 000002325	interferon regulatory factor 9 Source MGI Symbol Acc MGI 107587
E03	UPFM079289 6	ENSMUST00000 085425.4	Isg15	ENSMUSG00 000035692	ISG15 ubiquitin-like modifier Source MGI Symbol Acc MGI 1855694
E04	UPFM099647 7	ENSMUST00000 118867.7	Isg20	ENSMUSG00 000039236	interferon-stimulated protein Source MGI Symbol Acc MGI 1928895
E05	UPFM073443 4	ENSMUST00000 155328.7	Jak1	ENSMUSG00 000028530	Janus kinase 1 Source MGI Symbol Acc MGI 96628
E06	UPFM074831 3	ENSMUST00000 065796.9	Jak2	ENSMUSG00 000024789	Janus kinase 2 Source MGI Symbol Acc MGI 96629
E07	UPFM071418 4	ENSMUST00000 028853.6	Mal	ENSMUSG00 000027375	myelin and lymphocyte protein, T cell differentiation protein Source MGI Symbol Acc MGI 892970
E08	UPFM081794 6	ENSMUST00000 115443.7	Met	ENSMUSG00 000009376	met proto-oncogene Source MGI Symbol Acc MGI 96969
E09	UPFM064063 2	ENSMUST00000 232193.1	Mx1	ENSMUSG00 000000386	MX dynamin-like GTPase 1 Source MGI Symbol Acc MGI 97243
E10	UPFM073784 2	ENSMUST00000 191103.1	Mx2	ENSMUSG00 000023341	MX dynamin-like GTPase 2 Source MGI Symbol Acc MGI 97244
E11	UPFM117295 8	ENSMUST00000 035092.6	Myd88	ENSMUSG00 000032508	myeloid differentiation primary response gene 88 Source MGI Symbol Acc MGI 108005
E12	UPFM098020 1	ENSMUST00000 112705.8	Nmi	ENSMUSG00 000026946	N-myc (and STAT) interactor Source MGI Symbol Acc MGI 1928368
F01	UPFM076964 2	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
F02	UPFM073875 9	ENSMUST00000 080322.7	Oas1a	ENSMUSG00 000052776	2'-5' oligoadenylate synthetase 1A Source MGI Symbol Acc MGI 2180860
F03	UPFM063483 7	ENSMUST00000 183291.1	Oas1b	ENSMUSG00 000029605	2'-5' oligoadenylate synthetase 1B Source MGI Symbol Acc MGI 97430
F04	UPFM072811 0	ENSMUST00000 147941.1	Oas2	ENSMUSG00 000032690	2'-5' oligoadenylate synthetase 2 Source MGI Symbol Acc MGI 2180852
F05	UPFM065818 7	ENSMUST00000 085673.10	Pml	ENSMUSG00 000036986	promyelocytic leukemia Source MGI Symbol Acc MGI 104662
F06	UPFM080960 6	ENSMUST00000 105624.1	Prkcz	ENSMUSG00 000029053	protein kinase C, zeta Source MGI Symbol Acc MGI 97602
F07	UPFM095285 8	ENSMUST00000 111378.9	Psme2	ENSMUSG00 000079197	proteasome (prosome, macropain) activator subunit 2 (PA28 beta) Source MGI Symbol Acc MGI 1096365
F08	UPFM093927 6	ENSMUST00000 115070.7	Sh2d1a	ENSMUSG00 000005696	SH2 domain containing 1A Source MGI Symbol Acc MGI 1328352
F09	UPFM092076 0	ENSMUST00000 146236.7	Shb	ENSMUSG00 000044813	src homology 2 domain-containing transforming protein B Source MGI Symbol Acc MGI 98294
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	UPFM071531 5	ENSMUST00000 186574.6	Stat1	ENSMUSG00 000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063
F12	UPFM064876 8	ENSMUST00000 217852.1	Stat2	ENSMUSG00 000040033	signal transducer and activator of transcription 2 Source MGI Symbol Acc MGI 103039
G01	UPFM098484 5	ENSMUST00000 092671.11	Stat3	ENSMUSG00 000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G02	UPFM069451 8	ENSMUST00000 171148.1	Tap1	ENSMUSG00 000037321	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP) Source MGI Symbol Acc MGI 98483
G03	UPFM090439 0	ENSMUST00000 058136.8	Ticam1	ENSMUSG00 000047123	toll-like receptor adaptor molecule 1 Source MGI Symbol Acc MGI 2147032
G04	UPFM079676 3	ENSMUST00000 009530.4	Timp1	ENSMUSG00 000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G05	UPFM067679 7	ENSMUST00000 210996.1	Tlr3	ENSMUSG00 000031639	toll-like receptor 3 Source MGI Symbol Acc MGI 2156367
G06	UPFM091123 2	ENSMUST00000 060719.11	Tlr7	ENSMUSG00 000044583	toll-like receptor 7 Source MGI Symbol Acc MGI 2176882
G07	UPFM095833 2	ENSMUST00000 049023.2	Tlr8	ENSMUSG00 000040522	toll-like receptor 8 Source MGI Symbol Acc MGI 2176887
G08	UPFM065075 2	ENSMUST00000 062241.10	Tlr9	ENSMUSG00 000045322	toll-like receptor 9 Source MGI Symbol Acc MGI 1932389
G09	UPFM068209 9	ENSMUST00000 174840.1	Tnfsf10	ENSMUSG00 000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G10	UPFM080793 8	ENSMUST00000 021706.10	Traf3	ENSMUSG00 000021277	TNF receptor-associated factor 3 Source MGI Symbol Acc MGI 108041
G11	UPFM093815 1	ENSMUST00000 216874.1	Tyk2	ENSMUSG00 000032175	tyrosine kinase 2 Source MGI Symbol Acc MGI 1929470
G12	UPFM117296 6	ENSMUST00000 214739.1	Vegfa	ENSMUSG00 000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
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.

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.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.