

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

## Mouse Cytoskeleton Regulators

Cat. no. 249955 UPMM-088ZA

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
<b>A</b>	Actr2	Actr3	Arap1	Arfp2	Arhgap6	Arhgd1b	Arhgef11	Arpc1b	Arpc2	Arpc3	Arpc4	Arpc5
<b>B</b>	Aurka	Aurkb	Aurkc	Baiap2	Cald1	Calm1	Cask	Ccna1	Ccnb2	Cdc42	Cdc42bpa	Cdc42ep2
<b>C</b>	Cdc42ep3	Cdk5	Cdk5r1	Cfl1	Cit	Clasp1	Clasp2	Clip1	Clip2	Crk	Ctn	Cytip1
<b>D</b>	Cytip2	Diaph1	Dsn	Ezr	Fnbp11	Fscn2	Gsn	Iqgap1	Iqgap2	Limk1	Limk2	Llg1
<b>E</b>	Mad1	Map3k11	Mapk13	Mapre1	Mapre2	Mapt	Mark2	Mid1	Msn	Map4	Mylk	Mylk2
<b>F</b>	Nck1	Nck2	Pak1	Pak4	Pfn2	Phldb2	Pikfyve	Ppp1r12a	Ppp1r12b	Ppp3ca	Ppp3cb	Rac1
<b>G</b>	Racgap1	Rdx	Rhoa	Rock1	Ssh1	Ssh2	Stmn1	Tiam1	Vasp	Was	Wast1	Wastl
<b>H</b>	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	UPFM088725 2	ENSMUST00000 000137.7	Actr2	ENSMUSG00 000020152	ARP2 actin-related protein 2 Source MGI Symbol Acc MGI 1913963
A02	UPFM071460 0	ENSMUST00000 189192.1	Actr3	ENSMUSG00 000026341	ARP3 actin-related protein 3 Source MGI Symbol Acc MGI 1921367
A03	UPFM069489 2	ENSMUST00000 084896.9	Arap1	ENSMUSG00 000032812	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 1 Source MGI Symbol Acc MGI 1916960
A04	UPFM084358 2	ENSMUST00000 209550.1	Arfp2	ENSMUSG00 000030881	ADP-ribosylation factor interacting protein 2 Source MGI Symbol Acc MGI 1924182
A05	UPFM077828 4	ENSMUST00000 033721.12	Arhgap6	ENSMUSG00 000031355	Rho GTPase activating protein 6 Source MGI Symbol Acc MGI 1196332
A06	UPFM064258 3	ENSMUST00000 111891.3	Arhgdib	ENSMUSG00 000030220	Rho, GDP dissociation inhibitor (GDI) beta Source MGI Symbol Acc MGI 101940
A07	UPFM087170 1	ENSMUST00000 129113.7	Arhgef11	ENSMUSG00 000041977	Rho guanine nucleotide exchange factor (GEF) 11 Source MGI Symbol Acc MGI 2441869
A08	UPFM065003 9	ENSMUST00000 085679.12	Arpc1b	ENSMUSG00 000029622	actin related protein 2/3 complex, subunit 1B Source MGI Symbol Acc MGI 1343142
A09	UPFM095644 2	ENSMUST00000 113820.8	Arpc2	ENSMUSG00 000006304	actin related protein 2/3 complex, subunit 2 Source MGI Symbol Acc MGI 1923959
A10	UPFM085837 8	ENSMUST00000 102525.10	Arpc3	ENSMUSG00 000029465	actin related protein 2/3 complex, subunit 3 Source MGI Symbol Acc MGI 1928375
A11	UPFM086933 9	ENSMUST00000 203578.2	Arpc4	ENSMUSG00 000079426	actin related protein 2/3 complex, subunit 4 Source MGI Symbol Acc MGI 1915339
A12	UPFM101201 7	ENSMUST00000 143008.1	Arpc5	ENSMUSG00 000008475	actin related protein 2/3 complex, subunit 5 Source MGI Symbol Acc MGI 1915021
B01	UPFM069900 5	ENSMUST00000 109140.9	Aurka	ENSMUSG00 000027496	aurora kinase A Source MGI Symbol Acc MGI 894678
B02	UPFM068372 4	ENSMUST00000 149018.1	Aurkb	ENSMUSG00 000020897	aurora kinase B Source MGI Symbol Acc MGI 107168
B03	UPFM095948 4	ENSMUST00000 208518.1	Aurkc	ENSMUSG00 000070837	aurora kinase C Source MGI Symbol Acc MGI 1321119
B04	UPFM065640 3	ENSMUST00000 106233.1	Baiap2	ENSMUSG00 000025372	brain-specific angiogenesis inhibitor 1-associated protein 2 Source MGI Symbol Acc MGI 2137336
B05	UPFM064924 9	ENSMUST00000 115026.7	Cald1	ENSMUSG00 000029761	caldesmon 1 Source MGI Symbol Acc MGI 88250
B06	UPFM068642 1	ENSMUST00000 110082.10	Calm1	ENSMUSG00 000001175	calmodulin 1 Source MGI Symbol Acc MGI 88251
B07	UPFM092452 5	ENSMUST00000 033321.10	Cask	ENSMUSG00 000031012	calcium/calmodulin-dependent serine protein kinase (MAGUK family) Source MGI Symbol Acc MGI 1309489
B08	UPFM079498 3	ENSMUST00000 029368.6	Ccna1	ENSMUSG00 000027793	cyclin A1 Source MGI Symbol Acc MGI 108042
B09	UPFM100749 5	ENSMUST00000 034742.7	Ccnb2	ENSMUSG00 000032218	cyclin B2 Source MGI Symbol Acc MGI 88311
B10	UPFM073725 4	ENSMUST00000 030417.9	Cdc42	ENSMUSG00 000006699	cell division cycle 42 Source MGI Symbol Acc MGI 106211
B11	UPFM093212 4	ENSMUST00000 134959.7	Cdc42bpa	ENSMUSG00 000026490	CDC42 binding protein kinase alpha Source MGI Symbol Acc MGI 2441841
B12	UPFM073621 9	ENSMUST00000 055458.5	Cdc42ep2	ENSMUSG00 000045664	CDC42 effector protein (Rho GTPase binding) 2 Source MGI Symbol Acc MGI 1929744
C01	UPFM101121 5	ENSMUST00000 068958.8	Cdc42ep3	ENSMUSG00 000036533	CDC42 effector protein (Rho GTPase binding) 3 Source MGI Symbol Acc MGI 2384718
C02	UPFM089556 8	ENSMUST00000 030814.10	Cdk5	ENSMUSG00 000028969	cyclin-dependent kinase 5 Source MGI Symbol Acc MGI 101765
C03	UPFM078028 9	ENSMUST00000 053413.11	Cdk5r1	ENSMUSG00 000048895	cyclin-dependent kinase 5, regulatory subunit 1 (p35) Source MGI Symbol Acc MGI 101764
C04	UPFM063363 3	ENSMUST00000 116560.2	Cfl1	ENSMUSG00 000056201	cofilin 1, non-muscle Source MGI Symbol Acc MGI 101757
C05	UPFM079307 3	ENSMUST00000 122877.7	Cit	ENSMUSG00 000029516	citron Source MGI Symbol Acc MGI 105313
C06	UPFM098275 7	ENSMUST00000 049404.12	Clasp1	ENSMUSG00 000064302	CLIP associating protein 1 Source MGI Symbol Acc MGI 1923957
C07	UPFM081280 2	ENSMUST00000 111838.9	Clasp2	ENSMUSG00 000033392	CLIP associating protein 2 Source MGI Symbol Acc MGI 1923749
C08	UPFM065082 2	ENSMUST00000 111564.7	Clip1	ENSMUSG00 000049550	CAP-GLY domain containing linker protein 1 Source MGI Symbol Acc MGI 1928401
C09	UPFM101060 9	ENSMUST00000 036999.9	Clip2	ENSMUSG00 000063146	CAP-GLY domain containing linker protein 2 Source MGI Symbol Acc MGI 1313136
C10	UPFM069685 1	ENSMUST00000 147718.1	Crk	ENSMUSG00 000017776	v-crk avian sarcoma virus CT10 oncogene homolog Source MGI Symbol Acc MGI 88508
	UPFM064482	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	5	126018.1	Ctn	000031078	cortactin Source MGI Symbol Acc MGI 99695
C12	UPFM085497 1	ENSMUST00000 085255.10	Cyfp1	ENSMUSG00 000030447	cytoplasmic FMR1 interacting protein 1 Source MGI Symbol Acc MGI 1338801
D01	UPFM079816 0	ENSMUST00000 093165.11	Cyfp2	ENSMUSG00 000020340	cytoplasmic FMR1 interacting protein 2 Source MGI Symbol Acc MGI 1924134
D02	UPFM100029 7	ENSMUST00000 115631.7	Diaph1	ENSMUSG00 000024456	diaphanous related formin 1 Source MGI Symbol Acc MGI 1194490
D03	UPFM070848 7	ENSMUST00000 103172.3	Dstin	ENSMUSG00 000015932	destrin Source MGI Symbol Acc MGI 1929270
D04	UPFM075399 9	ENSMUST00000 064234.6	Ezr	ENSMUSG00 000052397	ezrin Source MGI Symbol Acc MGI 98931
D05	UPFM092563 2	ENSMUST00000 162409.7	Fnbp1l	ENSMUSG00 000039735	formin binding protein 1-like Source MGI Symbol Acc MGI 1925642
D06	UPFM100739 0	ENSMUST00000 026445.2	Fscn2	ENSMUSG00 000025380	fascin actin-bundling protein 2 Source MGI Symbol Acc MGI 2443337
D07	UPFM097833 2	ENSMUST00000 142324.7	Gsn	ENSMUSG00 000026879	gelsolin Source MGI Symbol Acc MGI 95851
D08	UPFM088023 0	ENSMUST00000 167377.2	lqgap1	ENSMUSG00 000030536	IQ motif containing GTPase activating protein 1 Source MGI Symbol Acc MGI 1352757
D09	UPFM087354 2	ENSMUST00000 068603.6	lqgap2	ENSMUSG00 000021676	IQ motif containing GTPase activating protein 2 Source MGI Symbol Acc MGI 2449975
D10	UPFM063704 6	ENSMUST00000 134093.1	Limk1	ENSMUSG00 000029674	LIM-domain containing, protein kinase Source MGI Symbol Acc MGI 104572
D11	UPFM081570 1	ENSMUST00000 101638.3	Limk2	ENSMUSG00 000020451	LIM motif-containing protein kinase 2 Source MGI Symbol Acc MGI 1197517
D12	UPFM079401 0	ENSMUST00000 052346.9	Llg1l	ENSMUSG00 000020536	LLGL1 scribble cell polarity complex component Source MGI Symbol Acc MGI 102682
E01	UPFM063580 5	ENSMUST00000 140596.1	Macf1	ENSMUSG00 000028649	microtubule-actin crosslinking factor 1 Source MGI Symbol Acc MGI 108559
E02	UPFM089746 1	ENSMUST00000 235891.1	Map3k11	ENSMUSG00 000004054	mitogen-activated protein kinase kinase kinase 11 Source MGI Symbol Acc MGI 1346880
E03	UPFM094213 0	ENSMUST00000 233051.1	Mapk13	ENSMUSG00 000004864	mitogen-activated protein kinase 13 Source MGI Symbol Acc MGI 1346864
E04	UPFM082170 3	ENSMUST00000 028981.8	Mapre1	ENSMUSG00 000027479	microtubule-associated protein, RP/EB family, member 1 Source MGI Symbol Acc MGI 891995
E05	UPFM091199 9	ENSMUST00000 165387.1	Mapre2	ENSMUSG00 000024277	microtubule-associated protein, RP/EB family, member 2 Source MGI Symbol Acc MGI 106271
E06	UPFM065360 3	ENSMUST00000 106988.7	Mapt	ENSMUSG00 000018411	microtubule-associated protein tau Source MGI Symbol Acc MGI 97180
E07	UPFM092464 8	ENSMUST00000 171393.7	Mark2	ENSMUSG00 000024969	MAP/microtubule affinity regulating kinase 2 Source MGI Symbol Acc MGI 99638
E08	UPFM062504 2	ENSMUST00000 112105.7	Mid1	ENSMUSG00 000035299	midline 1 Source MGI Symbol Acc MGI 1100537
E09	UPFM062307 8	ENSMUST00000 149985.7	Msn	ENSMUSG00 000031207	moesin Source MGI Symbol Acc MGI 97167
E10	UPFM096933 6	ENSMUST00000 199498.4	Map4	ENSMUSG00 000032479	microtubule-associated protein 4 Source MGI Symbol Acc MGI 97178
E11	UPFM075141 4	ENSMUST00000 231589.1	Mylk	ENSMUSG00 000022836	myosin, light polypeptide kinase Source MGI Symbol Acc MGI 894806
E12	UPFM100241 0	ENSMUST00000 028970.7	Mylk2	ENSMUSG00 000027470	myosin, light polypeptide kinase 2, skeletal muscle Source MGI Symbol Acc MGI 2139434
F01	UPFM093021 5	ENSMUST00000 112874.3	Nck1	ENSMUSG00 000032475	non-catalytic region of tyrosine kinase adaptor protein 1 Source MGI Symbol Acc MGI 109601
F02	UPFM069409 4	ENSMUST00000 202540.1	Nck2	ENSMUSG00 000066877	non-catalytic region of tyrosine kinase adaptor protein 2 Source MGI Symbol Acc MGI 1306821
F03	UPFM076380 8	ENSMUST00000 156637.2	Pak1	ENSMUSG00 000030774	p21 (RAC1) activated kinase 1 Source MGI Symbol Acc MGI 1339975
F04	UPFM096229 1	ENSMUST00000 108283.7	Pak4	ENSMUSG00 000030602	p21 (RAC1) activated kinase 4 Source MGI Symbol Acc MGI 1917834
F05	UPFM074967 5	ENSMUST00000 122210.1	Pfn2	ENSMUSG00 000027805	profilin 2 Source MGI Symbol Acc MGI 97550
F06	UPFM091692 2	ENSMUST00000 131003.7	Phldb2	ENSMUSG00 000033149	pleckstrin homology like domain, family B, member 2 Source MGI Symbol Acc MGI 2444981
F07	UPFM084309 4	ENSMUST00000 213081.1	Pikfyve	ENSMUSG00 000025949	phosphoinositide kinase, FYVE type zinc finger containing Source MGI Symbol Acc MGI 1335106
F08	UPFM078144 2	ENSMUST00000 219263.1	Ppp1r12a	ENSMUSG00 000019907	protein phosphatase 1, regulatory subunit 12A Source MGI Symbol Acc MGI 1309528
F09	UPFM084533 1	ENSMUST00000 045665.12	Ppp1r12b	ENSMUSG00 000073557	protein phosphatase 1, regulatory subunit 12B Source MGI Symbol Acc MGI 1916417
F10	UPFM100594 6	ENSMUST00000 070198.13	Ppp3ca	ENSMUSG00 000028161	protein phosphatase 3, catalytic subunit, alpha isoform Source MGI Symbol Acc MGI 107164

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM100358 3	ENSMUST00000 159027.7	PPP3cb	ENSMUSG00 000021816	protein phosphatase 3, catalytic subunit, beta isoform Source MGI Symbol Acc MGI 107163
F12	UPFM096241 9	ENSMUST00000 131513.1	Rac1	ENSMUSG00 000001847	Rac family small GTPase 1 Source MGI Symbol Acc MGI 97845
G01	UPFM076829 4	ENSMUST00000 168065.7	Racgap1	ENSMUSG00 000023015	Rac GTPase-activating protein 1 Source MGI Symbol Acc MGI 1349423
G02	UPFM080294 8	ENSMUST00000 163153.8	Rdx	ENSMUSG00 000032050	radixin Source MGI Symbol Acc MGI 97887
G03	UPFM080926 1	ENSMUST00000 007959.13	Rhoa	ENSMUSG00 000007815	ras homolog family member A Source MGI Symbol Acc MGI 1096342
G04	UPFM068689 3	ENSMUST00000 067947.6	Rock1	ENSMUSG00 000024290	Rho-associated coiled-coil containing protein kinase 1 Source MGI Symbol Acc MGI 107927
G05	UPFM077625 4	ENSMUST00000 159510.1	Ssh1	ENSMUSG00 000042121	slingshot protein phosphatase 1 Source MGI Symbol Acc MGI 2686240
G06	UPFM094386 2	ENSMUST00000 181283.2	Ssh2	ENSMUSG00 000037926	slingshot protein phosphatase 2 Source MGI Symbol Acc MGI 2679255
G07	UPFM093450 6	ENSMUST00000 105867.7	Stmn1	ENSMUSG00 000028832	stathmin 1 Source MGI Symbol Acc MGI 96739
G08	UPFM097147 5	ENSMUST00000 130951.7	Tiam1	ENSMUSG00 000002489	T cell lymphoma invasion and metastasis 1 Source MGI Symbol Acc MGI 103306
G09	UPFM088173 9	ENSMUST00000 032561.8	Vasp	ENSMUSG00 000030403	vasodilator-stimulated phosphoprotein Source MGI Symbol Acc MGI 109268
G10	UPFM067953 5	ENSMUST00000 146029.1	Was	ENSMUSG00 000031165	Wiskott-Aldrich syndrome Source MGI Symbol Acc MGI 105059
G11	UPFM074940 5	ENSMUST00000 105509.1	Wasf1	ENSMUSG00 000019831	WAS protein family, member 1 Source MGI Symbol Acc MGI 1890563
G12	UPFM068782 8	ENSMUST00000 031695.14	Wasl	ENSMUSG00 000029684	Wiskott-Aldrich syndrome-like (human) Source MGI Symbol Acc MGI 1920428
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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