

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

## Mouse Extracellular Matrix & Adhesion Molecules

Cat. no. 249955 UPMM-013ZA

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	Adams1	Adams2	Adams5	Adams8	Cd44	Cdh1	Cdh2	Cdh3	Cdh4	Cntn1	Col1a1	Col2a1
B	Col3a1	Col4a1	Col4a2	Col4a3	Col5a1	Col6a1	Ccr2	Ctnna1	Ctnna2	Ctnnb1	Ecm1	Emilin1
C	Entpd1	Fbln1	<td>Hsp1n1</td> <td>Hc</td> <td>Icam1</td> <td>Itga2</td> <td>Itga3</td> <td>Itga4</td> <td>Itga5</td> <td>Itgae</td> <td>Itgal</td>	Hsp1n1	Hc	Icam1	Itga2	Itga3	Itga4	Itga5	Itgae	Itgal
D	Itgam	Itgav	Itgax	Itgb1	Itgb2	Itgb3	Itgb4	Lama1	Lama2	Lama3	Lamb2	Lamb3
E	Lamc1	Mmp10	Mmp11	Mmp12	Mmp13	Mmp14	Mmp15	Mmp1a	Mmp2	Mmp3	Mmp7	Mmp8
F	Mmp9	Ncam1	Ncam2	Pecam1	Postn	Sele	Sell	Selp	Sgce	Sparc	Spock1	Spp1
G	Syl1	Tgfb1	Thbs1	Thbs2	Thbs3	Timp1	Timp2	Timp3	Tnc	Vcam1	Vcan	Vtn
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	UPFM066463 0	ENSMUST00000 125897.1	Adams1	ENSMUSG00 000022893	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 1 Source MGI Symbol Acc MGI 109249
A02	UPFM075013 6	ENSMUST00000 040523.8	Adams2	ENSMUSG00 000036545	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 2 Source MGI Symbol Acc MGI 1347356
A03	UPFM078684 3	ENSMUST00000 023611.6	Adams5	ENSMUSG00 000022894	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2) Source MGI Symbol Acc MGI 1346321
A04	UPFM062809 5	ENSMUST00000 068135.12	Adams8	ENSMUSG00 000031994	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 8 Source MGI Symbol Acc MGI 1353468
A05	UPFM095220 9	ENSMUST00000 111192.2	Cd44	ENSMUSG00 000005087	CD44 antigen Source MGI Symbol Acc MGI 88338
A06	UPFM088317 7	ENSMUST00000 136580.1	Cdh1	ENSMUSG00 000000303	cadherin 1 Source MGI Symbol Acc MGI 88354
A07	UPFM069274 2	ENSMUST00000 025166.13	Cdh2	ENSMUSG00 000024304	cadherin 2 Source MGI Symbol Acc MGI 88355
A08	UPFM069163 9	ENSMUST00000 080797.7	Cdh3	ENSMUSG00 000061048	cadherin 3 Source MGI Symbol Acc MGI 88356
A09	UPFM070918 1	ENSMUST00000 108911.1	Cdh4	ENSMUSG00 000000305	cadherin 4 Source MGI Symbol Acc MGI 99218
A10	UPFM097543 2	ENSMUST00000 169825.7	Cntn1	ENSMUSG00 000055022	contactin 1 Source MGI Symbol Acc MGI 105980
A11	UPFM117294 6	ENSMUST00000 001547.7	Col1a1	ENSMUSG00 000001506	collagen, type I, alpha 1 Source MGI Symbol Acc MGI 88467
A12	UPFM117294 7	ENSMUST00000 088355.11	Col2a1	ENSMUSG00 000022483	collagen, type II, alpha 1 Source MGI Symbol Acc MGI 88452
B01	UPFM093889 4	ENSMUST00000 087883.12	Col3a1	ENSMUSG00 000026043	collagen, type III, alpha 1 Source MGI Symbol Acc MGI 88453
B02	UPFM063323 2	ENSMUST00000 208386.1	Col4a1	ENSMUSG00 0000031502	collagen, type IV, alpha 1 Source MGI Symbol Acc MGI 88454
B03	UPFM066275 6	ENSMUST00000 146219.1	Col4a2	ENSMUSG00 0000031503	collagen, type IV, alpha 2 Source MGI Symbol Acc MGI 88455
B04	UPFM077676 4	ENSMUST00000 125563.7	Col4a3	ENSMUSG00 000079465	collagen, type IV, alpha 3 Source MGI Symbol Acc MGI 104688
B05	UPFM072934 5	ENSMUST00000 145423.1	Col5a1	ENSMUSG00 000026837	collagen, type V, alpha 1 Source MGI Symbol Acc MGI 88457
B06	UPFM097270 5	ENSMUST00000 001147.4	Col6a1	ENSMUSG00 000001119	collagen, type VI, alpha 1 Source MGI Symbol Acc MGI 88459
B07	UPFM087426 0	ENSMUST00000 176228.1	Ccn2	ENSMUSG00 000019997	cellular communication network factor 1 Source MGI Symbol Acc MGI 95537
B08	UPFM063661 3	ENSMUST00000 238145.1	Ctnna1	ENSMUSG00 000037815	catenin (cadherin associated protein), alpha 1 Source MGI Symbol Acc MGI 88274
B09	UPFM068897 7	ENSMUST00000 162991.1	Ctnna2	ENSMUSG00 000063063	catenin (cadherin associated protein), alpha 2 Source MGI Symbol Acc MGI 88275
B10	UPFM098586 3	ENSMUST00000 154356.7	Ctnnb1	ENSMUSG00 000006932	catenin (cadherin associated protein), beta 1 Source MGI Symbol Acc MGI 88276
B11	UPFM081634 2	ENSMUST00000 131376.7	Ecm1	ENSMUSG00 000028108	extracellular matrix protein 1 Source MGI Symbol Acc MGI 103060
B12	UPFM078551 7	ENSMUST00000 201169.1	Emilin1	ENSMUSG00 000029163	elastin microfibril interfacier 1 Source MGI Symbol Acc MGI 1926189
C01	UPFM094699 1	ENSMUST00000 137508.1	Entpd1	ENSMUSG00 000048120	ectonucleoside triphosphate diphosphohydrolase 1 Source MGI Symbol Acc MGI 102805
C02	UPFM075267 1	ENSMUST00000 057410.13	Fbln1	ENSMUSG00 000006369	fibulin 1 Source MGI Symbol Acc MGI 95487
C03	UPFM086511 0	ENSMUST00000 188894.6	Fn1	ENSMUSG00 000026193	fibronectin 1 Source MGI Symbol Acc MGI 95566
C04	UPFM075523 4	ENSMUST00000 022108.8	Hapln1	ENSMUSG00 000021613	hyaluronan and proteoglycan link protein 1 Source MGI Symbol Acc MGI 1337006
C05	UPFM087703 4	ENSMUST00000 028233.6	Hc	ENSMUSG00 000026874	hemolytic complement Source MGI Symbol Acc MGI 96031
C06	UPFM084326 4	ENSMUST00000 215003.1	Icam1	ENSMUSG00 000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
C07	UPFM099288 8	ENSMUST00000 224204.1	Itga2	ENSMUSG00 000015533	integrin alpha 2 Source MGI Symbol Acc MGI 96600
C08	UPFM076559 2	ENSMUST00000 001548.13	Itga3	ENSMUSG00 000001507	integrin alpha 3 Source MGI Symbol Acc MGI 96602
C09	UPFM078320 0	ENSMUST00000 099972.4	Itga4	ENSMUSG00 000027009	integrin alpha 4 Source MGI Symbol Acc MGI 96603
C10	UPFM078839 0	ENSMUST00000 215331.1	Itga5	ENSMUSG00 000000555	integrin alpha 5 (fibronectin receptor alpha) Source MGI Symbol Acc MGI 96604
	UPFM083290	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	0	102537.9	Itgae	000005947	integrin alpha E, epithelial-associated Source MGI Symbol Acc MGI 1298377
C12	UPFM079183 7	ENSMUST00000 106306.8	Itgal	ENSMUSG00 000030830	integrin alpha L Source MGI Symbol Acc MGI 96606
D01	UPFM091833 8	ENSMUST00000 156593.2	Itgam	ENSMUSG00 000030786	integrin alpha M Source MGI Symbol Acc MGI 96607
D02	UPFM085524 7	ENSMUST00000 028499.10	Itgav	ENSMUSG00 000027087	integrin alpha V Source MGI Symbol Acc MGI 96608
D03	UPFM087335 1	ENSMUST00000 033053.7	Itgax	ENSMUSG00 000030789	integrin alpha X Source MGI Symbol Acc MGI 96609
D04	UPFM093465 6	ENSMUST00000 124826.1	Itgb1	ENSMUSG00 000025809	integrin beta 1 (fibronectin receptor beta) Source MGI Symbol Acc MGI 96610
D05	UPFM083841 4	ENSMUST00000 156644.7	Itgb2	ENSMUSG00 000000290	integrin beta 2 Source MGI Symbol Acc MGI 96611
D06	UPFM079961 6	ENSMUST00000 127140.2	Itgb3	ENSMUSG00 000020689	integrin beta 3 Source MGI Symbol Acc MGI 96612
D07	UPFM089553 0	ENSMUST00000 151691.7	Itgb4	ENSMUSG00 000020758	integrin beta 4 Source MGI Symbol Acc MGI 96613
D08	UPFM088741 8	ENSMUST00000 035471.8	Lama1	ENSMUSG00 000032796	laminin, alpha 1 Source MGI Symbol Acc MGI 99892
D09	UPFM071655 4	ENSMUST00000 219763.1	Lama2	ENSMUSG00 000019899	laminin, alpha 2 Source MGI Symbol Acc MGI 99912
D10	UPFM085886 1	ENSMUST00000 188815.1	Lama3	ENSMUSG00 000024421	laminin, alpha 3 Source MGI Symbol Acc MGI 99909
D11	UPFM117295 7	ENSMUST00000 195058.1	Lamb2	ENSMUSG00 000052911	laminin, beta 2 Source MGI Symbol Acc MGI 99916
D12	UPFM065052 7	ENSMUST00000 194677.5	Lamb3	ENSMUSG00 000026639	laminin, beta 3 Source MGI Symbol Acc MGI 99915
E01	UPFM098309 7	ENSMUST00000 027752.14	Lamc1	ENSMUSG00 000026478	laminin, gamma 1 Source MGI Symbol Acc MGI 99914
E02	UPFM065982 8	ENSMUST00000 034488.3	Mmp10	ENSMUSG00 000047562	matrix metalloproteinase 10 Source MGI Symbol Acc MGI 97007
E03	UPFM082693 9	ENSMUST00000 219728.1	Mmp11	ENSMUSG00 000000901	matrix metalloproteinase 11 Source MGI Symbol Acc MGI 97008
E04	UPFM085510 4	ENSMUST00000 065079.5	Mmp12	ENSMUSG00 000049723	matrix metalloproteinase 12 Source MGI Symbol Acc MGI 97005
E05	UPFM095086 5	ENSMUST00000 015394.9	Mmp13	ENSMUSG00 000050578	matrix metalloproteinase 13 Source MGI Symbol Acc MGI 1340026
E06	UPFM101055 0	ENSMUST00000 089688.5	Mmp14	ENSMUSG00 000000957	matrix metalloproteinase 14 (membrane-inserted) Source MGI Symbol Acc MGI 101900
E07	UPFM095460 9	ENSMUST00000 034243.6	Mmp15	ENSMUSG00 000031790	matrix metalloproteinase 15 Source MGI Symbol Acc MGI 109320
E08	UPFM093736 0	ENSMUST00000 217651.1	Mmp1a	ENSMUSG00 000043089	matrix metalloproteinase 1a (interstitial collagenase) Source MGI Symbol Acc MGI 1933846
E09	UPFM073737 4	ENSMUST00000 211567.1	Mmp2	ENSMUSG00 000031740	matrix metalloproteinase 2 Source MGI Symbol Acc MGI 97009
E10	UPFM079125 8	ENSMUST00000 034497.7	Mmp3	ENSMUSG00 000043613	matrix metalloproteinase 3 Source MGI Symbol Acc MGI 97010
E11	UPFM090007 1	ENSMUST00000 018767.7	Mmp7	ENSMUSG00 000018623	matrix metalloproteinase 7 Source MGI Symbol Acc MGI 103189
E12	UPFM094745 5	ENSMUST00000 018765.3	Mmp8	ENSMUSG00 000005800	matrix metalloproteinase 8 Source MGI Symbol Acc MGI 1202395
F01	UPFM079930 8	ENSMUST00000 017881.2	Mmp9	ENSMUSG00 000017737	matrix metalloproteinase 9 Source MGI Symbol Acc MGI 97011
F02	UPFM068412 7	ENSMUST00000 166811.8	Ncam1	ENSMUSG00 000039542	neural cell adhesion molecule 1 Source MGI Symbol Acc MGI 97281
F03	UPFM083272 4	ENSMUST00000 067602.4	Ncam2	ENSMUSG00 000022762	neural cell adhesion molecule 2 Source MGI Symbol Acc MGI 97282
F04	UPFM095037 6	ENSMUST00000 068021.8	Pecam1	ENSMUSG00 000020717	platelet/endothelial cell adhesion molecule 1 Source MGI Symbol Acc MGI 97537
F05	UPFM089942 4	ENSMUST00000 107985.9	Postn	ENSMUSG00 000027750	periostin, osteoblast specific factor Source MGI Symbol Acc MGI 1926321
F06	UPFM094696 9	ENSMUST00000 027874.5	Sele	ENSMUSG00 000026582	selectin, endothelial cell Source MGI Symbol Acc MGI 98278
F07	UPFM077751 1	ENSMUST00000 097491.9	Sell	ENSMUSG00 000026581	selectin, lymphocyte Source MGI Symbol Acc MGI 98279
F08	UPFM093521 9	ENSMUST00000 162746.1	Selp	ENSMUSG00 000026580	selectin, platelet Source MGI Symbol Acc MGI 98280
F09	UPFM079610 1	ENSMUST00000 115577.8	Sgce	ENSMUSG00 000004631	sarcoglycan, epsilon Source MGI Symbol Acc MGI 1329042
F10	UPFM087131 6	ENSMUST00000 214685.1	Sparc	ENSMUSG00 000018593	secreted acidic cysteine rich glycoprotein Source MGI Symbol Acc MGI 98373

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM070540 2	ENSMUST00000 187852.6	Spock1	ENSMUSG00 000056222	sparc/osteonectin, cwcv and kazal-like domains proteoglycan 1 Source MGI Symbol Acc MGI 105371
F12	UPFM075924 9	ENSMUST00000 112746.7	Spp1	ENSMUSG00 000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
G01	UPFM068100 7	ENSMUST00000 147593.1	Syt1	ENSMUSG00 000035864	synaptotagmin I Source MGI Symbol Acc MGI 99667
G02	UPFM065578 1	ENSMUST00000 225600.1	Tgfb1	ENSMUSG00 000035493	transforming growth factor, beta induced Source MGI Symbol Acc MGI 99959
G03	UPFM072927 9	ENSMUST00000 039559.8	Thbs1	ENSMUSG00 000040152	thrombospondin 1 Source MGI Symbol Acc MGI 98737
G04	UPFM064532 4	ENSMUST00000 170872.2	Thbs2	ENSMUSG00 000023885	thrombospondin 2 Source MGI Symbol Acc MGI 98738
G05	UPFM064122 8	ENSMUST00000 126315.7	Thbs3	ENSMUSG00 000028047	thrombospondin 3 Source MGI Symbol Acc MGI 98739
G06	UPFM079676 3	ENSMUST00000 009530.4	Timp1	ENSMUSG00 000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G07	UPFM073508 3	ENSMUST00000 017610.9	Timp2	ENSMUSG00 000017466	tissue inhibitor of metalloproteinase 2 Source MGI Symbol Acc MGI 98753
G08	UPFM066788 6	ENSMUST00000 020234.13	Timp3	ENSMUSG00 000020044	tissue inhibitor of metalloproteinase 3 Source MGI Symbol Acc MGI 98754
G09	UPFM085039 7	ENSMUST00000 107371.1	Tnc	ENSMUSG00 000028364	tenascin C Source MGI Symbol Acc MGI 101922
G10	UPFM083873 5	ENSMUST00000 029574.12	Vcam1	ENSMUSG00 000027962	vascular cell adhesion molecule 1 Source MGI Symbol Acc MGI 98926
G11	UPFM092669 5	ENSMUST00000 109544.8	Vcan	ENSMUSG00 000021614	versican Source MGI Symbol Acc MGI 102889
G12	UPFM081151 3	ENSMUST00000 146997.1	Vtn	ENSMUSG00 000017344	vitronectin Source MGI Symbol Acc MGI 98940
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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