

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

## Mouse Extracellular Matrix & Adhesion Molecules

Cat. no. 249950 SBMM-013ZA

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](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	Ccn2	Ctnna1	Ctnna2	Ctnnb1	Ecm1	Emilin1
C	Entpd1	Fbln1	<td>Hapln1</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>	Hapln1	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	Sgoe	Sparc	Spock1	Spp1
G	Sytl	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 PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0709231	ENSMUST00000125897.1	Adams1	ENSMUSG0000022893	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 1 Source MGI Symbol Acc MGI 109249
A02	SBM0675610	ENSMUST00000040523.8	Adams2	ENSMUSG0000036545	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 2 Source MGI Symbol Acc MGI 1347356
A03	SBM0855750	ENSMUST00000023611.6	Adams5	ENSMUSG0000022894	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2) Source MGI Symbol Acc MGI 1346321
A04	SBM0776370	ENSMUST000000163037.1	Adams8	ENSMUSG0000031994	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 8 Source MGI Symbol Acc MGI 1353468
A05	SBM0860996	ENSMUST000000111194.7	Cd44	ENSMUSG0000005087	CD44 antigen Source MGI Symbol Acc MGI 88338
A06	SBM0815100	ENSMUST000000136580.1	Cdh1	ENSMUSG0000000303	cadherin 1 Source MGI Symbol Acc MGI 88354
A07	SBM0822940	ENSMUST000000025166.13	Cdh2	ENSMUSG0000024304	cadherin 2 Source MGI Symbol Acc MGI 88355
A08	SBM0844644	ENSMUST000000080797.7	Cdh3	ENSMUSG00000061048	cadherin 3 Source MGI Symbol Acc MGI 88356
A09	SBM0791586	ENSMUST000000129659.1	Cdh4	ENSMUSG0000000305	cadherin 4 Source MGI Symbol Acc MGI 99218
A10	SBM1040724	ENSMUST000000068378.5	Cntn1	ENSMUSG0000055022	contactin 1 Source MGI Symbol Acc MGI 105980
A11	SBM0911341	ENSMUST000000139974.1	Col1a1	ENSMUSG0000001506	collagen, type I, alpha 1 Source MGI Symbol Acc MGI 88467
A12	SBM1035677	ENSMUST000000139246.7	Col2a1	ENSMUSG0000022483	collagen, type II, alpha 1 Source MGI Symbol Acc MGI 88452
B01	SBM0704935	ENSMUST000000129611.1	Col3a1	ENSMUSG0000026043	collagen, type III, alpha 1 Source MGI Symbol Acc MGI 88453
B02	SBM0696573	ENSMUST000000209598.1	Col4a1	ENSMUSG00000031502	collagen, type IV, alpha 1 Source MGI Symbol Acc MGI 88454
B03	SBM0756779	ENSMUST000000033899.13	Col4a2	ENSMUSG00000031503	collagen, type IV, alpha 2 Source MGI Symbol Acc MGI 88455
B04	SBM1225392	ENSMUST000000152664.1	Col4a3	ENSMUSG0000079465	collagen, type IV, alpha 3 Source MGI Symbol Acc MGI 104688
B05	SBM1062999	ENSMUST000000028280.13	Col5a1	ENSMUSG0000026837	collagen, type V, alpha 1 Source MGI Symbol Acc MGI 88457
B06	SBM1022835	ENSMUST000000001147.4	Col6a1	ENSMUSG0000001119	collagen, type VI, alpha 1 Source MGI Symbol Acc MGI 88459
B07	SBM0718058	ENSMUST000000176228.1	Ccn2	ENSMUSG0000019997	cellular communication network factor 1 Source MGI Symbol Acc MGI 95537
B08	SBM0712952	ENSMUST000000236571.1	Ctnna1	ENSMUSG00000037815	catenin (cadherin associated protein), alpha 1 Source MGI Symbol Acc MGI 88274
B09	SBM0948487	ENSMUST000000075340.11	Ctnna2	ENSMUSG0000063063	catenin (cadherin associated protein), alpha 2 Source MGI Symbol Acc MGI 88275
B10	SBM1021462	ENSMUST000000007130.14	Ctnnb1	ENSMUSG0000006932	catenin (cadherin associated protein), beta 1 Source MGI Symbol Acc MGI 88276
B11	SBM0887676	ENSMUST000000117507.8	Ecm1	ENSMUSG0000028108	extracellular matrix protein 1 Source MGI Symbol Acc MGI 103060
B12	SBM0837305	ENSMUST000000202368.1	Emilin1	ENSMUSG0000029163	elastin microfibril interfacier 1 Source MGI Symbol Acc MGI 1926189
C01	SBM1027747	ENSMUST000000156598.1	Entpd1	ENSMUSG0000048120	ectonucleoside triphosphate diphosphohydrolase 1 Source MGI Symbol Acc MGI 102805
C02	SBM1008084	ENSMUST000000057410.13	Fbln1	ENSMUSG0000006369	fibulin 1 Source MGI Symbol Acc MGI 95487
C03	SBM0934692	ENSMUST000000185408.6	Fn1	ENSMUSG0000026193	fibronectin 1 Source MGI Symbol Acc MGI 95566
C04	SBM0779756	ENSMUST000000022108.8	Hapln1	ENSMUSG0000021613	hyaluronan and proteoglycan link protein 1 Source MGI Symbol Acc MGI 1337006
C05	SBM0750153	ENSMUST000000028233.6	Hc	ENSMUSG0000026874	hemolytic complement Source MGI Symbol Acc MGI 96031
C06	SBM0806584	ENSMUST000000215003.1	Icam1	ENSMUSG0000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
C07	SBM1002416	ENSMUST000000056117.9	Itga2	ENSMUSG0000015533	integrin alpha 2 Source MGI Symbol Acc MGI 96600
C08	SBM0845438	ENSMUST000000140342.1	Itga3	ENSMUSG0000001507	integrin alpha 3 Source MGI Symbol Acc MGI 96602
C09	SBM0718988	ENSMUST000000126312.1	Itga4	ENSMUSG0000027009	integrin alpha 4 Source MGI Symbol Acc MGI 96603
C10	SBM0776835	ENSMUST000000023128.7	Itga5	ENSMUSG0000000555	integrin alpha 5 (fibronectin receptor alpha) Source MGI Symbol Acc MGI 96604
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0932648	006101.3	Itgae	000005947	integrin alpha E, epithelial-associated Source MGI Symbol Acc MGI 1298377
C12	SBM0900464	ENSMUST00000120857.7	Itgal	ENSMUSG0000030830	integrin alpha L Source MGI Symbol Acc MGI 96606
D01	SBM0730179	ENSMUST00000156593.2	Itgam	ENSMUSG0000030786	integrin alpha M Source MGI Symbol Acc MGI 96607
D02	SBM0710817	ENSMUST00000151463.1	Itgav	ENSMUSG0000027087	integrin alpha V Source MGI Symbol Acc MGI 96608
D03	SBM0923673	ENSMUST00000033053.7	Itgax	ENSMUSG0000030789	integrin alpha X Source MGI Symbol Acc MGI 96609
D04	SBM0691612	ENSMUST00000090006.11	Itgb1	ENSMUSG0000025809	integrin beta 1 (fibronectin receptor beta) Source MGI Symbol Acc MGI 96610
D05	SBM0947975	ENSMUST00000131023.7	Itgb2	ENSMUSG0000002090	integrin beta 2 Source MGI Symbol Acc MGI 96611
D06	SBM0851696	ENSMUST00000127140.2	Itgb3	ENSMUSG0000020689	integrin beta 3 Source MGI Symbol Acc MGI 96612
D07	SBM0809070	ENSMUST00000169928.7	Itgb4	ENSMUSG0000020758	integrin beta 4 Source MGI Symbol Acc MGI 96613
D08	SBM0711087	ENSMUST00000233224.1	Lama1	ENSMUSG0000032796	laminin, alpha 1 Source MGI Symbol Acc MGI 99892
D09	SBM0673261	ENSMUST00000185839.6	Lama2	ENSMUSG0000019899	laminin, alpha 2 Source MGI Symbol Acc MGI 99912
D10	SBM0970747	ENSMUST00000092070.12	Lama3	ENSMUSG0000024421	laminin, alpha 3 Source MGI Symbol Acc MGI 99909
D11	SBM0879098	ENSMUST00000195058.1	Lamb2	ENSMUSG0000052911	laminin, beta 2 Source MGI Symbol Acc MGI 99916
D12	SBM0894068	ENSMUST00000161526.2	Lamb3	ENSMUSG0000026639	laminin, beta 3 Source MGI Symbol Acc MGI 99915
E01	SBM1090976	ENSMUST00000027752.14	Lamc1	ENSMUSG0000026478	laminin, gamma 1 Source MGI Symbol Acc MGI 99914
E02	SBM0917028	ENSMUST00000034488.3	Mmp10	ENSMUSG0000047562	matrix metalloproteinase 10 Source MGI Symbol Acc MGI 97007
E03	SBM0701635	ENSMUST00000000924.12	Mmp11	ENSMUSG0000000901	matrix metalloproteinase 11 Source MGI Symbol Acc MGI 97008
E04	SBM1025739	ENSMUST00000065079.5	Mmp12	ENSMUSG0000049723	matrix metalloproteinase 12 Source MGI Symbol Acc MGI 97005
E05	SBM0784073	ENSMUST00000015394.9	Mmp13	ENSMUSG0000050578	matrix metalloproteinase 13 Source MGI Symbol Acc MGI 1340026
E06	SBM0735844	ENSMUST00000197947.1	Mmp14	ENSMUSG0000000957	matrix metalloproteinase 14 (membrane-inserted) Source MGI Symbol Acc MGI 101900
E07	SBM0951580	ENSMUST00000212235.1	Mmp15	ENSMUSG0000031790	matrix metalloproteinase 15 Source MGI Symbol Acc MGI 109320
E08	SBM0888476	ENSMUST00000034492.5	Mmp1a	ENSMUSG0000043089	matrix metalloproteinase 1a (interstitial collagenase) Source MGI Symbol Acc MGI 1933846
E09	SBM0690200	ENSMUST00000034187.8	Mmp2	ENSMUSG0000031740	matrix metalloproteinase 2 Source MGI Symbol Acc MGI 97009
E10	SBM1025609	ENSMUST00000034497.7	Mmp3	ENSMUSG0000043613	matrix metalloproteinase 3 Source MGI Symbol Acc MGI 97010
E11	SBM0709342	ENSMUST00000018767.7	Mmp7	ENSMUSG0000018623	matrix metalloproteinase 7 Source MGI Symbol Acc MGI 103189
E12	SBM0782006	ENSMUST00000018765.3	Mmp8	ENSMUSG0000005800	matrix metalloproteinase 8 Source MGI Symbol Acc MGI 1202395
F01	SBM1089430	ENSMUST00000017881.2	Mmp9	ENSMUSG0000017737	matrix metalloproteinase 9 Source MGI Symbol Acc MGI 97011
F02	SBM1225395	ENSMUST00000114476.7	Ncam1	ENSMUSG0000039542	neural cell adhesion molecule 1 Source MGI Symbol Acc MGI 97281
F03	SBM0971376	ENSMUST00000232550.1	Ncam2	ENSMUSG0000022762	neural cell adhesion molecule 2 Source MGI Symbol Acc MGI 97282
F04	SBM1044090	ENSMUST00000068021.8	Pecam1	ENSMUSG0000020717	platelet/endothelial cell adhesion molecule 1 Source MGI Symbol Acc MGI 97537
F05	SBM1010273	ENSMUST00000073012.12	Postn	ENSMUSG0000027750	periostin, osteoblast specific factor Source MGI Symbol Acc MGI 1926321
F06	SBM0765795	ENSMUST00000027874.5	Sele	ENSMUSG0000026582	selectin, endothelial cell Source MGI Symbol Acc MGI 98278
F07	SBM0975834	ENSMUST00000097491.9	Sell	ENSMUSG0000026581	selectin, lymphocyte Source MGI Symbol Acc MGI 98279
F08	SBM1080696	ENSMUST00000161020.7	Selp	ENSMUSG0000026580	selectin, platelet Source MGI Symbol Acc MGI 98280
F09	SBM0755711	ENSMUST00000128109.7	Sgce	ENSMUSG0000004631	sarcoglycan, epsilon Source MGI Symbol Acc MGI 1329042
F10	SBM0767527	ENSMUST00000108858.7	Sparc	ENSMUSG0000018593	secreted acidic cysteine rich glycoprotein Source MGI Symbol Acc MGI 98373

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0930922	ENSMUST00000172326.2	Spock1	ENSMUSG0000056222	sparc/osteonectin, cwcv and kazal-like domains proteoglycan 1 Source MGI Symbol Acc MGI 105371
F12	SBM0826950	ENSMUST00000086833.12	Spp1	ENSMUSG0000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
G01	SBM0968781	ENSMUST00000147593.1	Syt1	ENSMUSG0000035864	synaptotagmin I Source MGI Symbol Acc MGI 99667
G02	SBM1030857	ENSMUST00000225600.1	Tgfb1	ENSMUSG0000035493	transforming growth factor, beta induced Source MGI Symbol Acc MGI 99959
G03	SBM0895247	ENSMUST00000142588.1	Thbs1	ENSMUSG0000040152	thrombospondin 1 Source MGI Symbol Acc MGI 98737
G04	SBM0822435	ENSMUST00000170872.2	Thbs2	ENSMUSG0000023885	thrombospondin 2 Source MGI Symbol Acc MGI 98738
G05	SBM0958381	ENSMUST00000119084.1	Thbs3	ENSMUSG0000028047	thrombospondin 3 Source MGI Symbol Acc MGI 98739
G06	SBM0839007	ENSMUST00000115342.9	Timp1	ENSMUSG0000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G07	SBM0732357	ENSMUST00000155707.2	Timp2	ENSMUSG0000017466	tissue inhibitor of metalloproteinase 2 Source MGI Symbol Acc MGI 98753
G08	SBM1025772	ENSMUST00000132307.1	Timp3	ENSMUSG0000020044	tissue inhibitor of metalloproteinase 3 Source MGI Symbol Acc MGI 98754
G09	SBM1089732	ENSMUST00000107377.9	Tnc	ENSMUSG0000028364	tenascin C Source MGI Symbol Acc MGI 101922
G10	SBM1225402	ENSMUST00000029574.12	Vcam1	ENSMUSG0000027962	vascular cell adhesion molecule 1 Source MGI Symbol Acc MGI 98926
G11	SBM0833847	ENSMUST00000162715.1	Vcan	ENSMUSG0000021614	versican Source MGI Symbol Acc MGI 102889
G12	SBM1079687	ENSMUST00000128479.1	Vtn	ENSMUSG0000017344	vitronectin Source MGI Symbol Acc MGI 98940
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 $\mu$ 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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ 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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