

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

## Mouse Endothelial Cell Biology

Cat. no. 249950 SBMM-015ZA

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	Ace	Adam17	Agt	Agtr1a	Angpt1	Anxa5	ApoE	Bax	Bcl2	Bcl2l1	Casp1	Casp3
B	Cav1	Ccl2	Ccl5	Cdh5	Cflar	Col18a1	Cradd	Cx3cl1	Cxcl1	Cxcl2	Cxcr5	Edn1
C	Edn2	Ednra	Eng	F2r	F2rl1	F3	Fos	Fosl	Fgf1	Fgf2	Fit1	Fn1
D	Hif1a	Icam1	Il11	Il1b	Il3	Il6	Il7	Itga5	Itgav	Itgb1	Itgb3	Kdr
E	Kit	Mmp1a	Mmp2	Mmp9	Nos3	Nppb	Npr1	Ocln	Pdgfra	Pecam1	Pf4	Pgf
F	Plat	Plau	Plg	Procr	Plgis	Plgs2	Sele	Sell	Selp	Selpg	Serpine1	Sod1
G	Tek	Tfpi	Tgfb1	Thbd	Thbs1	Timp1	Tnf	Tnfsf10	Tymp	Vcam1	Vegfa	Vwf
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	SBM0904655	ENSMUST00000151657.1	Ace	ENSMUSG0000020681	angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 Source MGI Symbol Acc MGI 87874
A02	SBM1051971	ENSMUST00000142092.1	Adam17	ENSMUSG0000052593	a disintegrin and metallopeptidase domain 17 Source MGI Symbol Acc MGI 1096335
A03	SBM0838798	ENSMUST00000063278.6	Agt	ENSMUSG00000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963
A04	SBM0991724	ENSMUST00000222503.1	Agtr1a	ENSMUSG0000049115	angiotensin II receptor, type 1a Source MGI Symbol Acc MGI 87964
A05	SBM0848818	ENSMUST0000022921.6	Angpt1	ENSMUSG0000022309	angiotensinogen converting enzyme 1 Source MGI Symbol Acc MGI 108448
A06	SBM1073515	ENSMUST00000199478.1	Anxa5	ENSMUSG0000027712	annexin A5 Source MGI Symbol Acc MGI 106008
A07	SBM0912771	ENSMUST00000173739.7	ApoE	ENSMUSG0000002985	apolipoprotein E Source MGI Symbol Acc MGI 88057
A08	SBM0740166	ENSMUST00000211615.1	Bax	ENSMUSG0000003873	BCL2-associated X protein Source MGI Symbol Acc MGI 99702
A09	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A10	SBM0751583	ENSMUST00000134357.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
A11	SBM0862549	ENSMUST00000027015.5	Casp1	ENSMUSG0000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A12	SBM0732165	ENSMUST00000093517.6	Casp3	ENSMUSG00000031628	caspase 3 Source MGI Symbol Acc MGI 107739
B01	SBM0727943	ENSMUST00000115454.1	Cav1	ENSMUSG0000007655	caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709
B02	SBM0836747	ENSMUST00000000193.5	Ccl2	ENSMUSG00000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
B03	SBM0703029	ENSMUST00000125015.1	Ccl5	ENSMUSG00000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
B04	SBM0916537	ENSMUST00000034339.9	Cdh5	ENSMUSG00000031871	cadherin 5 Source MGI Symbol Acc MGI 105057
B05	SBM0727764	ENSMUST00000124567.1	Cflar	ENSMUSG0000026031	CASP8 and FADD-like apoptosis regulator Source MGI Symbol Acc MGI 1336166
B06	SBM0820945	ENSMUST00000156009.1	Col18a1	ENSMUSG0000001435	collagen, type XVIII, alpha 1 Source MGI Symbol Acc MGI 88451
B07	SBM0880165	ENSMUST00000217809.1	Cradd	ENSMUSG0000045867	CASP2 and RIPK1 domain containing adaptor with death domain Source MGI Symbol Acc MGI 1336168
B08	SBM0783722	ENSMUST00000034230.6	Cx3cl1	ENSMUSG00000031778	chemokine (C-X3-C motif) ligand 1 Source MGI Symbol Acc MGI 1097153
B09	SBM0998835	ENSMUST00000031327.8	Cxcl1	ENSMUSG0000029380	chemokine (C-X-C motif) ligand 1 Source MGI Symbol Acc MGI 108068
B10	SBM0694289	ENSMUST00000075433.7	Cxcl2	ENSMUSG0000058427	chemokine (C-X-C motif) ligand 2 Source MGI Symbol Acc MGI 1340094
B11	SBM0950831	ENSMUST00000179828.7	Cxcr5	ENSMUSG0000047880	chemokine (C-X-C motif) receptor 5 Source MGI Symbol Acc MGI 103567
B12	SBM0992224	ENSMUST00000021796.8	Edn1	ENSMUSG0000021367	endothelin 1 Source MGI Symbol Acc MGI 95283
C01	SBM1000997	ENSMUST00000030384.4	Edn2	ENSMUSG0000028635	endothelin 2 Source MGI Symbol Acc MGI 95284
C02	SBM0725285	ENSMUST00000034029.7	Ednra	ENSMUSG00000031616	endothelin receptor type A Source MGI Symbol Acc MGI 105923
C03	SBM0877670	ENSMUST00000156306.1	Eng	ENSMUSG0000026814	endoglin Source MGI Symbol Acc MGI 95392
C04	SBM0878566	ENSMUST00000059193.6	F2r	ENSMUSG0000048376	coagulation factor II (thrombin) receptor Source MGI Symbol Acc MGI 101802
C05	SBM0680175	ENSMUST00000022185.9	F2rl1	ENSMUSG0000021678	coagulation factor II (thrombin) receptor-like 1 Source MGI Symbol Acc MGI 101910
C06	SBM0963811	ENSMUST00000029771.12	F3	ENSMUSG0000028128	coagulation factor III Source MGI Symbol Acc MGI 88381
C07	SBM0856649	ENSMUST00000112472.3	Fas	ENSMUSG0000024778	Fas (TNF receptor superfamily member 6) Source MGI Symbol Acc MGI 95484
C08	SBM0967876	ENSMUST00000000834.3	FasL	ENSMUSG0000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
C09	SBM1074617	ENSMUST00000235922.1	Fgf1	ENSMUSG0000036585	fibroblast growth factor 1 Source MGI Symbol Acc MGI 95515
C10	SBM0959713	ENSMUST00000138563.8	Fgf2	ENSMUSG00000037225	fibroblast growth factor 2 Source MGI Symbol Acc MGI 95516
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0996637	110529.5	Fli1	000029648	FMS-like tyrosine kinase 1 Source MGI Symbol Acc MGI 95558
C12	SBM0934692	ENSMUST00000185408.6	Fn1	ENSMUSG0000026193	fibronectin 1 Source MGI Symbol Acc MGI 95566
D01	SBM1003614	ENSMUST00000110464.7	Hif1a	ENSMUSG00000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
D02	SBM0806584	ENSMUST00000215003.1	Icam1	ENSMUSG00000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
D03	SBM0752881	ENSMUST00000094892.11	Il11	ENSMUSG00000004371	interleukin 11 Source MGI Symbol Acc MGI 107613
D04	SBM0738485	ENSMUST00000028881.13	Il1b	ENSMUSG00000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
D05	SBM1089901	ENSMUST00000019058.5	Il3	ENSMUSG0000018914	interleukin 3 Source MGI Symbol Acc MGI 96552
D06	SBM0742623	ENSMUST00000026845.11	Il6	ENSMUSG00000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D07	SBM1037504	ENSMUST00000168269.7	Il7	ENSMUSG00000040329	interleukin 7 Source MGI Symbol Acc MGI 96561
D08	SBM0776835	ENSMUST00000023128.7	Itga5	ENSMUSG00000000555	integrin alpha 5 (fibronectin receptor alpha) Source MGI Symbol Acc MGI 96604
D09	SBM0710817	ENSMUST00000151463.1	Itgav	ENSMUSG00000027087	integrin alpha V Source MGI Symbol Acc MGI 96608
D10	SBM0691612	ENSMUST00000090006.11	Itgb1	ENSMUSG00000025809	integrin beta 1 (fibronectin receptor beta) Source MGI Symbol Acc MGI 96610
D11	SBM0851696	ENSMUST00000127140.2	Itgb3	ENSMUSG00000020689	integrin beta 3 Source MGI Symbol Acc MGI 96612
D12	SBM0947462	ENSMUST00000149573.1	Kdr	ENSMUSG00000062960	kinase insert domain protein receptor Source MGI Symbol Acc MGI 96683
E01	SBM0996057	ENSMUST00000202167.1	Kit	ENSMUSG00000005672	KIT proto-oncogene receptor tyrosine kinase Source MGI Symbol Acc MGI 96677
E02	SBM0888476	ENSMUST00000034492.5	Mmp1a	ENSMUSG00000043089	matrix metalloproteinase 1a (interstitial collagenase) Source MGI Symbol Acc MGI 1933846
E03	SBM0690200	ENSMUST00000034187.8	Mmp2	ENSMUSG00000031740	matrix metalloproteinase 2 Source MGI Symbol Acc MGI 97009
E04	SBM1089430	ENSMUST00000017881.2	Mmp9	ENSMUSG00000017737	matrix metalloproteinase 9 Source MGI Symbol Acc MGI 97011
E05	SBM0681619	ENSMUST00000030834.6	Nos3	ENSMUSG00000028978	nitric oxide synthase 3, endothelial cell Source MGI Symbol Acc MGI 97362
E06	SBM1033372	ENSMUST00000103231.4	Nppb	ENSMUSG00000029019	natriuretic peptide type B Source MGI Symbol Acc MGI 97368
E07	SBM0913786	ENSMUST00000029540.12	Npr1	ENSMUSG00000027931	natriuretic peptide receptor 1 Source MGI Symbol Acc MGI 97371
E08	SBM1083398	ENSMUST00000159515.1	Ocln	ENSMUSG00000021638	occludin Source MGI Symbol Acc MGI 106183
E09	SBM0852876	ENSMUST00000168162.4	Pdgfra	ENSMUSG00000029231	platelet derived growth factor receptor, alpha polypeptide Source MGI Symbol Acc MGI 97530
E10	SBM1044090	ENSMUST00000068021.8	Pecam1	ENSMUSG00000020717	platelet/endothelial cell adhesion molecule 1 Source MGI Symbol Acc MGI 97537
E11	SBM0889385	ENSMUST00000031320.7	Pf4	ENSMUSG00000029373	platelet factor 4 Source MGI Symbol Acc MGI 1888711
E12	SBM0900847	ENSMUST00000220985.1	Pgf	ENSMUSG00000004791	placental growth factor Source MGI Symbol Acc MGI 105095
F01	SBM0722468	ENSMUST00000033941.6	Plat	ENSMUSG00000031538	plasminogen activator, tissue Source MGI Symbol Acc MGI 97610
F02	SBM0733272	ENSMUST00000224141.1	Plau	ENSMUSG00000021822	plasminogen activator, urokinase Source MGI Symbol Acc MGI 97611
F03	SBM0836626	ENSMUST00000014578.6	Plg	ENSMUSG00000059481	plasminogen Source MGI Symbol Acc MGI 97620
F04	SBM0914777	ENSMUST00000155095.1	Procr	ENSMUSG00000027611	protein C receptor, endothelial Source MGI Symbol Acc MGI 104596
F05	SBM0883937	ENSMUST00000136271.1	Ptgis	ENSMUSG00000017969	prostaglandin I2 (prostaglyclin) synthase Source MGI Symbol Acc MGI 1097156
F06	SBM0782881	ENSMUST00000035065.8	Ptgs2	ENSMUSG00000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
F07	SBM0765795	ENSMUST00000027874.5	Sele	ENSMUSG00000026582	selectin, endothelial cell Source MGI Symbol Acc MGI 98278
F08	SBM0975834	ENSMUST00000097491.9	Sell	ENSMUSG00000026581	selectin, lymphocyte Source MGI Symbol Acc MGI 98279
F09	SBM1080696	ENSMUST00000161020.7	Selp	ENSMUSG00000026580	selectin, platelet Source MGI Symbol Acc MGI 98280
F10	SBM0692445	ENSMUST00000202555.1	Selp1g	ENSMUSG00000048163	selectin, platelet (p-selectin) ligand Source MGI Symbol Acc MGI 106689

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0809699	ENSMUST0000041388.10	Serpine1	ENSMUSG00000037411	serine (or cysteine) peptidase inhibitor, clade E, member 1 Source MGI Symbol Acc MGI 97608
F12	SBM0946306	ENSMUST0000023707.10	Sod1	ENSMUSG00000022982	superoxide dismutase 1, soluble Source MGI Symbol Acc MGI 98351
G01	SBM0875032	ENSMUST00000131958.1	Tek	ENSMUSG00000006386	TEK receptor tyrosine kinase Source MGI Symbol Acc MGI 98664
G02	SBM0827539	ENSMUST00000111714.7	Tfpi	ENSMUSG00000027082	tissue factor pathway inhibitor Source MGI Symbol Acc MGI 1095418
G03	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	SBM0830967	ENSMUST00000099270.4	Thbd	ENSMUSG00000074743	thrombomodulin Source MGI Symbol Acc MGI 98736
G05	SBM0895247	ENSMUST00000142588.1	Thbs1	ENSMUSG00000040152	thrombospondin 1 Source MGI Symbol Acc MGI 98737
G06	SBM0839007	ENSMUST00000115342.9	Timp1	ENSMUSG0000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G07	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG00000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G08	SBM0969669	ENSMUST00000046383.11	Tnfsf10	ENSMUSG00000039304	tumor necrosis factor (ligand) superfamily, member 10 Source MGI Symbol Acc MGI 107414
G09	SBM0980785	ENSMUST00000023285.4	Tymp	ENSMUSG00000022615	thymidine phosphorylase Source MGI Symbol Acc MGI 1920212
G10	SBM1225402	ENSMUST00000029574.12	Vcam1	ENSMUSG00000027962	vascular cell adhesion molecule 1 Source MGI Symbol Acc MGI 98926
G11	SBM1079198	ENSMUST00000217017.1	Vegfa	ENSMUSG00000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
G12	SBM0711301	ENSMUST00000150548.7	Vwf	ENSMUSG0000001930	Von Willebrand factor Source MGI Symbol Acc MGI 98941
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG00000023944	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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