

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

## Mouse Cardiotoxicity

Cat. no. 249950 SBMM-095ZA

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	Abhd2	Abra	Acta1	Adra2a	Aifm1	Ak3	Ash1l	Atp5j	Bcat1	Bgn	Bsn	Blg2
B	Cd7	Ccr1	Cd14	Cfd	Ch25h	Ckm	Col15a1	Col3a1	Creb	Csnk2a2	Dusp8	Egr1
C	Fcgr2b	Fhl1	Fosl1	Gja1	Gpm6a	Hamp	Hspa2	Hsph1	Ifi202	Igf1p5	Il6	Ilpr2
D	Klhl41	Klhl40	Kcnj12	Mcm6	Mt1	Nexn	Nfib	Pdk4	Pkn2	Pla2g4a	Plau	Pln
E	Bpifa1	Postn	Ppbb	Ppp1r14c	Prkab2	Psm2	Psm7	Pum2	Pvr	Rbm3	Reg3b	Rnd1
F	Rps6kb1	S1pr2	Serpine1	Sik1	Slc4a3	Sox4	Spp1	Tcf4	Tgfb2	Thrap3	Tiam1	Timp1
G	Tubb6	Txnip	Uba5	Ubxn2a	Uck2	Ucp1	Vcan	Vegfa	Vim	Wipi1	Zfp148	Zfp612
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	SBM0735355	ENSMUST00000037315.12	Abhd2	ENSMUSG0000039202	abhydrolase domain containing 2 Source MGI Symbol Acc MGI 1914344
A02	SBM0789287	ENSMUST00000054742.6	Abra	ENSMUSG0000042895	actin-binding Rho activating protein Source MGI Symbol Acc MGI 2444891
A03	SBM0719266	ENSMUST00000034453.5	Acta1	ENSMUSG0000031972	actin, alpha 1, skeletal muscle Source MGI Symbol Acc MGI 87902
A04	SBM0927196	ENSMUST00000036700.6	Adra2a	ENSMUSG0000033717	adrenergic receptor, alpha 2a Source MGI Symbol Acc MGI 87934
A05	SBM0871924	ENSMUST000000143466.7	Aifm1	ENSMUSG0000036932	apoptosis-inducing factor, mitochondrion-associated 1 Source MGI Symbol Acc MGI 1349419
A06	SBM0789048	ENSMUST00000025696.4	Ak3	ENSMUSG0000024782	adenylate kinase 3 Source MGI Symbol Acc MGI 1860835
A07	SBM0746685	ENSMUST000000189824.1	Ash1l	ENSMUSG0000028053	ASH1 like histone lysine methyltransferase Source MGI Symbol Acc MGI 2183158
A08	SBM1083865	ENSMUST00000023608.13	Atp5j	ENSMUSG0000022890	ATP synthase, H+ transporting, mitochondrial F0 complex, subunit F Source MGI Symbol Acc MGI 107777
A09	SBM0869152	ENSMUST000000123930.7	Bcat1	ENSMUSG0000030268	branched chain aminotransferase 1, cytosolic Source MGI Symbol Acc MGI 104861
A10	SBM1041217	ENSMUST000000133394.7	Bgn	ENSMUSG0000031375	biglycan Source MGI Symbol Acc MGI 88158
A11	SBM0759046	ENSMUST000000124763.1	Bsn	ENSMUSG0000032589	bassoon Source MGI Symbol Acc MGI 1277955
A12	SBM0925245	ENSMUST00000020692.6	Btg2	ENSMUSG0000020423	B cell translocation gene 2, anti-proliferative Source MGI Symbol Acc MGI 108384
B01	SBM0998844	ENSMUST00000021011.2	Ccl7	ENSMUSG0000035373	chemokine (C-C motif) ligand 7 Source MGI Symbol Acc MGI 99512
B02	SBM1015405	ENSMUST00000026911.5	Ccr1	ENSMUSG0000025804	chemokine (C-C motif) receptor 1 Source MGI Symbol Acc MGI 104618
B03	SBM0904854	ENSMUST000000061829.7	Cd14	ENSMUSG0000051439	CD14 antigen Source MGI Symbol Acc MGI 88318
B04	SBM0729233	ENSMUST000000061653.8	Cfd	ENSMUSG0000061780	complement factor D (adipsin) Source MGI Symbol Acc MGI 87931
B05	SBM0985157	ENSMUST000000050562.5	Ch25h	ENSMUSG0000050370	cholesterol 25-hydroxylase Source MGI Symbol Acc MGI 1333869
B06	SBM0738906	ENSMUST000000208710.1	Ckm	ENSMUSG0000030399	creatine kinase, muscle Source MGI Symbol Acc MGI 88413
B07	SBM0909599	ENSMUST000000082303.12	Col15a1	ENSMUSG0000028339	collagen, type XV, alpha 1 Source MGI Symbol Acc MGI 88449
B08	SBM0704935	ENSMUST000000129611.1	Col3a1	ENSMUSG0000026043	collagen, type III, alpha 1 Source MGI Symbol Acc MGI 88453
B09	SBM1037952	ENSMUST000000147138.7	Creml	ENSMUSG0000063889	cAMP responsive element modulator Source MGI Symbol Acc MGI 88495
B10	SBM1019820	ENSMUST000000212441.1	Csnk2a2	ENSMUSG0000046707	casein kinase 2, alpha prime polypeptide Source MGI Symbol Acc MGI 88547
B11	SBM0993292	ENSMUST000000039926.9	Dusp8	ENSMUSG0000037887	dual specificity phosphatase 8 Source MGI Symbol Acc MGI 106626
B12	SBM0782056	ENSMUST000000064795.5	Egr1	ENSMUSG0000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
C01	SBM1074809	ENSMUST00000027966.13	Fcgr2b	ENSMUSG0000026656	Fc receptor, IgG, low affinity IIb Source MGI Symbol Acc MGI 95499
C02	SBM0724490	ENSMUST000000155882.7	Fhl1	ENSMUSG0000023092	four and a half LIM domains 1 Source MGI Symbol Acc MGI 1298387
C03	SBM0970102	ENSMUST000000235958.1	Fosl1	ENSMUSG0000024912	fos-like antigen 1 Source MGI Symbol Acc MGI 107179
C04	SBM1033106	ENSMUST000000218834.1	Gja1	ENSMUSG0000050953	gap junction protein, alpha 1 Source MGI Symbol Acc MGI 95713
C05	SBM1079918	ENSMUST000000033915.8	Gpm6a	ENSMUSG0000031517	glycoprotein m6a Source MGI Symbol Acc MGI 107671
C06	SBM0947272	ENSMUST000000062620.8	Hamp	ENSMUSG0000050440	hepcidin antimicrobial peptide Source MGI Symbol Acc MGI 1933533
C07	SBM0946927	ENSMUST000000219555.1	Hspa2	ENSMUSG0000059970	heat shock protein 2 Source MGI Symbol Acc MGI 96243
C08	SBM0936477	ENSMUST000000200805.3	Hsph1	ENSMUSG0000029657	heat shock 105kDa/110kDa protein 1 Source MGI Symbol Acc MGI 105053
C09	SBM0779269	ENSMUST000000137120.7	Ift20	ENSMUSG0000001105	intraflagellar transport 20 Source MGI Symbol Acc MGI 1915585
C10	SBM1004323	ENSMUST000000137339.1	Igfbp5	ENSMUSG0000026185	insulin-like growth factor binding protein 5 Source MGI Symbol Acc MGI 96440
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0742623	026845.11	Il6	000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
C12	SBM0950108	ENSMUST00000 053273.14	Itpr2	ENSMUSG00 000030287	inositol 1,4,5-triphosphate receptor 2 Source MGI Symbol Acc MGI 99418
D01	SBM0726661	ENSMUST00000 100050.3	Klhl41	ENSMUSG00 000075307	kelch-like 41 Source MGI Symbol Acc MGI 2683854
D02	SBM1043291	ENSMUST00000 216358.1	Klhl40	ENSMUSG00 000074001	kelch-like 40 Source MGI Symbol Acc MGI 1919580
D03	SBM0755605	ENSMUST00000 108717.2	Kcnj12	ENSMUSG00 000042529	potassium inwardly-rectifying channel, subfamily J, member 12 Source MGI Symbol Acc MGI 108495
D04	SBM0733610	ENSMUST00000 188755.1	Mcm6	ENSMUSG00 000026355	minichromosome maintenance complex component 6 Source MGI Symbol Acc MGI 1298227
D05	SBM0992835	ENSMUST00000 211807.1	Mt1	ENSMUSG00 000031765	metallothionein 1 Source MGI Symbol Acc MGI 97171
D06	SBM0981361	ENSMUST00000 196815.4	Nexn	ENSMUSG00 000039103	nexilin Source MGI Symbol Acc MGI 1916060
D07	SBM0682124	ENSMUST00000 107247.7	Nfib	ENSMUSG00 000008575	nuclear factor I/B Source MGI Symbol Acc MGI 103188
D08	SBM0854468	ENSMUST00000 019721.6	Pdk4	ENSMUSG00 000019577	pyruvate dehydrogenase kinase, isoenzyme 4 Source MGI Symbol Acc MGI 1351481
D09	SBM0970416	ENSMUST00000 174422.7	Pkn2	ENSMUSG00 000004591	protein kinase N2 Source MGI Symbol Acc MGI 109211
D10	SBM0965205	ENSMUST00000 190507.1	Pla2g4a	ENSMUSG00 000056220	phospholipase A2, group IVA (cytosolic, calcium-dependent) Source MGI Symbol Acc MGI 1195256
D11	SBM0733272	ENSMUST00000 224141.1	Plau	ENSMUSG00 000021822	plasminogen activator, urokinase Source MGI Symbol Acc MGI 97611
D12	SBM0768889	ENSMUST00000 219921.1	Pln	ENSMUSG00 000038583	phospholamban Source MGI Symbol Acc MGI 97622
E01	SBM0982333	ENSMUST00000 028985.7	Bpifa1	ENSMUSG00 000027483	BPI fold containing family A, member 1 Source MGI Symbol Acc MGI 1338036
E02	SBM1010273	ENSMUST00000 073012.12	Postn	ENSMUSG00 000027750	periostin, osteoblast specific factor Source MGI Symbol Acc MGI 1926321
E03	SBM1001435	ENSMUST00000 031319.7	Ppbp	ENSMUSG00 000029372	pro-platelet basic protein Source MGI Symbol Acc MGI 1888712
E04	SBM0801537	ENSMUST00000 217573.1	Ppp1r14c	ENSMUSG00 000040653	protein phosphatase 1, regulatory inhibitor subunit 14C Source MGI Symbol Acc MGI 1923392
E05	SBM0898406	ENSMUST00000 132719.1	Prkab2	ENSMUSG00 000038205	protein kinase, AMP-activated, beta 2 non-catalytic subunit Source MGI Symbol Acc MGI 1336185
E06	SBM0820015	ENSMUST00000 170836.3	Psmad2	ENSMUSG00 000015671	proteasome (prosome, macropain) subunit, alpha type 2 Source MGI Symbol Acc MGI 104885
E07	SBM0763888	ENSMUST00000 044106.5	Psmad7	ENSMUSG00 000039067	proteasome (prosome, macropain) 26S subunit, non-ATPase, 7 Source MGI Symbol Acc MGI 1351511
E08	SBM0883240	ENSMUST00000 170037.1	Pum2	ENSMUSG00 000020594	pumilio RNA-binding family member 2 Source MGI Symbol Acc MGI 1931751
E09	SBM0902050	ENSMUST00000 043517.7	Pvr	ENSMUSG00 000040511	poliovirus receptor Source MGI Symbol Acc MGI 107741
E10	SBM0939302	ENSMUST00000 115615.8	Rbm3	ENSMUSG00 000031167	RNA binding motif (RNP1, RRM) protein 3 Source MGI Symbol Acc MGI 1099460
E11	SBM0959577	ENSMUST00000 096904.5	Reg3b	ENSMUSG00 000071356	regenerating islet-derived 3 beta Source MGI Symbol Acc MGI 97478
E12	SBM0739723	ENSMUST00000 003451.10	Rnd1	ENSMUSG00 000054855	Rho family GTPase 1 Source MGI Symbol Acc MGI 2444878
F01	SBM0853475	ENSMUST00000 058286.8	Rps6kb1	ENSMUSG00 000020516	ribosomal protein S6 kinase, polypeptide 1 Source MGI Symbol Acc MGI 1270849
F02	SBM0946722	ENSMUST00000 054197.6	S1pr2	ENSMUSG00 000043895	sphingosine-1-phosphate receptor 2 Source MGI Symbol Acc MGI 99569
F03	SBM0809699	ENSMUST00000 041388.10	Serpine1	ENSMUSG00 000037411	serine (or cysteine) peptidase inhibitor, clade E, member 1 Source MGI Symbol Acc MGI 97608
F04	SBM0935742	ENSMUST00000 024839.5	Sik1	ENSMUSG00 000024042	salt inducible kinase 1 Source MGI Symbol Acc MGI 104754
F05	SBM0900255	ENSMUST00000 132110.1	Slc4a3	ENSMUSG00 000006576	solute carrier family 4 (anion exchanger), member 3 Source MGI Symbol Acc MGI 109350
F06	SBM1075307	ENSMUST00000 067230.5	Sox4	ENSMUSG00 000076431	SRY (sex determining region Y)-box 4 Source MGI Symbol Acc MGI 98366
F07	SBM0826950	ENSMUST00000 086833.12	Spp1	ENSMUSG00 000029304	secreted phosphoprotein 1 Source MGI Symbol Acc MGI 98389
F08	SBM0803388	ENSMUST00000 114982.7	Tcf4	ENSMUSG00 000053477	transcription factor 4 Source MGI Symbol Acc MGI 98506
F09	SBM0955433	ENSMUST00000 194960.1	Tgfb2	ENSMUSG00 000039239	transforming growth factor, beta 2 Source MGI Symbol Acc MGI 98726
F10	SBM1060884	ENSMUST00000 169403.7	Thrap3	ENSMUSG00 000043962	thyroid hormone receptor associated protein 3 Source MGI Symbol Acc MGI 2442637

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0797666	ENSMUST00000144691.8	Tiam1	ENSMUSG0000002489	T cell lymphoma invasion and metastasis 1 Source MGI Symbol Acc MGI 103306
F12	SBM0839007	ENSMUST00000115342.9	Timp1	ENSMUSG0000001131	tissue inhibitor of metalloproteinase 1 Source MGI Symbol Acc MGI 98752
G01	SBM0943384	ENSMUST00000001513.7	Tubb6	ENSMUSG0000001473	tubulin, beta 6 class V Source MGI Symbol Acc MGI 1915201
G02	SBM1060480	ENSMUST00000049093.7	Txnip	ENSMUSG0000038393	thioredoxin interacting protein Source MGI Symbol Acc MGI 1889549
G03	SBM0878363	ENSMUST00000140768.2	Uba5	ENSMUSG0000032557	ubiquitin-like modifier activating enzyme 5 Source MGI Symbol Acc MGI 1913913
G04	SBM0924115	ENSMUST00000020962.11	Ubxn2a	ENSMUSG0000020634	UBX domain protein 2A Source MGI Symbol Acc MGI 2442310
G05	SBM0766541	ENSMUST00000192702.5	Uck2	ENSMUSG0000026558	uridine-cytidine kinase 2 Source MGI Symbol Acc MGI 1931744
G06	SBM1037476	ENSMUST00000034146.4	Ucp1	ENSMUSG0000031710	uncoupling protein 1 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 98894
G07	SBM0833847	ENSMUST00000162715.1	Vcan	ENSMUSG0000021614	versican Source MGI Symbol Acc MGI 102889
G08	SBM1079198	ENSMUST00000217017.1	Vegfa	ENSMUSG0000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
G09	SBM0684573	ENSMUST00000028062.7	Vim	ENSMUSG0000026728	vimentin Source MGI Symbol Acc MGI 98932
G10	SBM0944548	ENSMUST00000103060.9	Wipi1	ENSMUSG0000041895	WD repeat domain, phosphoinositide interacting 1 Source MGI Symbol Acc MGI 1261864
G11	SBM0788989	ENSMUST00000232023.1	Zfp148	ENSMUSG0000022811	zinc finger protein 148 Source MGI Symbol Acc MGI 1332234
G12	SBM1092089	ENSMUST00000212754.1	Zfp612	ENSMUSG0000044676	zinc finger protein 612 Source MGI Symbol Acc MGI 2443465
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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