

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

## Mouse Hypertension

Cat. no. 249950 SBMM-037ZA

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	Ace2	Acta2	Adm	Adra1b	Adra1d	Adrb1	Agt	Agtr1a	Agtr1b	Agtr2	Alox5
B	Arg2	Atp2c1	Atp6ap2	Avp	Avpr1a	Avpr1b	Bdkrb1	Bdkrb2	Bmpr2	Cacna1c	Calca	Cav1
C	Chrna1	Chrb1	Clic1	Clic4	Clic5	Cnga1	Cnga2	Cnga3	Cnga4	Cngb1	Cngb3	Cps1
D	Drd3	Drd5	Ece1	Edn1	Edn2	Ednra	Ednrb	Ephx2	Gch1	Gchfr	Gucy1a1	Gucy1b1
E	Hif1a	Itpr1	Itpr2	Kcnj8	Kcnma1	King1	Mylk	Mylk2	Nos3	Nosip	Nostrin	Nppb
F	Nppc	Npr1	Npy1r	P2rx4	Pde3a	Pde3b	Pde5a	Plcg1	Plcg2	Prkg1	Prkg2	Ptgir
G	Ptgs1	Ptgs2	Ren1	S1pr1	Scnn1a	Scnn1b	Scnn1g	Slc7a1	Sphk1	Sphk2	Uts2	Uts2r
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	SBM0982876	ENSMUST00000073973.10	Ace2	ENSMUSG0000015405	angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 Source MGI Symbol Acc MGI 1917258
A03	SBM0729572	ENSMUST00000238147.1	Acta2	ENSMUSG0000035783	actin, alpha 2, smooth muscle, aorta Source MGI Symbol Acc MGI 87909
A04	SBM0999945	ENSMUST00000185766.1	Adm	ENSMUSG0000030790	adrenomedullin Source MGI Symbol Acc MGI 108058
A05	SBM0693993	ENSMUST00000124306.1	Adra1b	ENSMUSG0000050541	adrenergic receptor, alpha 1b Source MGI Symbol Acc MGI 104774
A06	SBM0697937	ENSMUST00000103184.3	Adra1d	ENSMUSG0000027335	adrenergic receptor, alpha 1d Source MGI Symbol Acc MGI 106673
A07	SBM1062089	ENSMUST00000038949.5	Adrb1	ENSMUSG0000035283	adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937
A08	SBM0838798	ENSMUST00000063278.6	Agf	ENSMUSG0000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963
A09	SBM0991724	ENSMUST00000222503.1	Agtr1a	ENSMUSG0000049115	angiotensin II receptor, type 1a Source MGI Symbol Acc MGI 87964
A10	SBM0793647	ENSMUST00000068316.7	Agtr1b	ENSMUSG0000054988	angiotensin II receptor, type 1b Source MGI Symbol Acc MGI 87965
A11	SBM0960904	ENSMUST00000131150.1	Agtr2	ENSMUSG0000068122	angiotensin II receptor, type 2 Source MGI Symbol Acc MGI 87966
A12	SBM0830704	ENSMUST00000026795.12	Alox5	ENSMUSG0000025701	arachidonate 5-lipoxygenase Source MGI Symbol Acc MGI 87999
B01	SBM1022583	ENSMUST00000021550.6	Arg2	ENSMUSG0000021125	arginase type II Source MGI Symbol Acc MGI 1330806
B02	SBM0697320	ENSMUST00000190802.1	Atp2c1	ENSMUSG0000032570	ATPase, Ca++-sequestering Source MGI Symbol Acc MGI 1889008
B03	SBM0847667	ENSMUST00000137277.1	Atp6ap2	ENSMUSG0000031007	ATPase, H+ transporting, lysosomal accessory protein 2 Source MGI Symbol Acc MGI 1917745
B04	SBM0938299	ENSMUST00000046001.6	Avp	ENSMUSG0000037727	arginine vasopressin Source MGI Symbol Acc MGI 88121
B05	SBM0804326	ENSMUST00000020323.6	Avpr1a	ENSMUSG0000020123	arginine vasopressin receptor 1A Source MGI Symbol Acc MGI 1859216
B06	SBM0729298	ENSMUST00000190410.1	Avpr1b	ENSMUSG0000026432	arginine vasopressin receptor 1B Source MGI Symbol Acc MGI 1347010
B07	SBM0915036	ENSMUST00000182899.1	Bdkrb1	ENSMUSG0000041347	bradykinin receptor, beta 1 Source MGI Symbol Acc MGI 88144
B08	SBM0987216	ENSMUST00000001652.6	Bdkrb2	ENSMUSG0000021070	bradykinin receptor, beta 2 Source MGI Symbol Acc MGI 102845
B09	SBM1052934	ENSMUST00000190659.1	Bmpr2	ENSMUSG0000067336	bone morphogenetic protein receptor, type II (serine/threonine kinase) Source MGI Symbol Acc MGI 1095407
B10	SBM0831888	ENSMUST00000078320.13	Cacna1c	ENSMUSG0000051331	calcium channel, voltage-dependent, L type, alpha 1C subunit Source MGI Symbol Acc MGI 103013
B11	SBM0833704	ENSMUST00000206156.1	Calca	ENSMUSG0000030669	calcitonin/calcitonin-related polypeptide, alpha Source MGI Symbol Acc MGI 2151253
B12	SBM0727943	ENSMUST00000115454.1	Cav1	ENSMUSG0000007655	caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709
C01	SBM1032711	ENSMUST00000028515.3	Chrna1	ENSMUSG0000027107	cholinergic receptor, nicotinic, alpha polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87885
C02	SBM0717043	ENSMUST00000045971.8	Chrnb1	ENSMUSG0000041189	cholinergic receptor, nicotinic, beta polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87890
C03	SBM0676559	ENSMUST00000007257.9	Clic1	ENSMUSG0000007041	chloride intracellular channel 1 Source MGI Symbol Acc MGI 2148924
C04	SBM0860669	ENSMUST00000037099.8	Clic4	ENSMUSG0000037242	chloride intracellular channel 4 (mitochondrial) Source MGI Symbol Acc MGI 1352754
C05	SBM0806781	ENSMUST00000233193.1	Clic5	ENSMUSG0000023959	chloride intracellular channel 5 Source MGI Symbol Acc MGI 1917912
C06	SBM0977938	ENSMUST00000169997.5	Cnga1	ENSMUSG0000067220	cyclic nucleotide gated channel alpha 1 Source MGI Symbol Acc MGI 88436
C07	SBM0695671	ENSMUST00000006020.7	Cnga2	ENSMUSG0000005864	cyclic nucleotide gated channel alpha 2 Source MGI Symbol Acc MGI 108040
C08	SBM0829010	ENSMUST00000027288.9	Cnga3	ENSMUSG0000026114	cyclic nucleotide gated channel alpha 3 Source MGI Symbol Acc MGI 1341818
C09	SBM1049317	ENSMUST00000033187.5	Cnga4	ENSMUSG0000030897	cyclic nucleotide gated channel alpha 4 Source MGI Symbol Acc MGI 2664099
C10	SBM1072079	ENSMUST00000121162.2	Cngb1	ENSMUSG0000031789	cyclic nucleotide gated channel beta 1 Source MGI Symbol Acc MGI 2664102
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0678356	102999.1	Cngb3	000056494	cyclic nucleotide gated channel beta 3 Source MGI Symbol Acc MGI 1353562
C12	SBM1021844	ENSMUST00000 027144.7	Cps1	ENSMUSG00 000025991	carbamoyl-phosphate synthetase 1 Source MGI Symbol Acc MGI 891996
D01	SBM0800125	ENSMUST00000 023390.4	Drd3	ENSMUSG00 000022705	dopamine receptor D3 Source MGI Symbol Acc MGI 94925
D02	SBM0801237	ENSMUST00000 041646.3	Drd5	ENSMUSG00 000039358	dopamine receptor D5 Source MGI Symbol Acc MGI 94927
D03	SBM1064047	ENSMUST00000 151110.3	Ece1	ENSMUSG00 000057530	endothelin converting enzyme 1 Source MGI Symbol Acc MGI 1101357
D04	SBM0992224	ENSMUST00000 021796.8	Edn1	ENSMUSG00 000021367	endothelin 1 Source MGI Symbol Acc MGI 95283
D05	SBM1000997	ENSMUST00000 030384.4	Edn2	ENSMUSG00 000028635	endothelin 2 Source MGI Symbol Acc MGI 95284
D06	SBM0725285	ENSMUST00000 034029.7	Ednra	ENSMUSG00 000031616	endothelin receptor type A Source MGI Symbol Acc MGI 105923
D07	SBM0944057	ENSMUST00000 022718.10	Ednrb	ENSMUSG00 000022122	endothelin receptor type B Source MGI Symbol Acc MGI 102720
D08	SBM1053432	ENSMUST00000 225309.1	Ephx2	ENSMUSG00 000022040	epoxide hydrolase 2, cytoplasmic Source MGI Symbol Acc MGI 99500
D09	SBM0916524	ENSMUST00000 089959.6	Gch1	ENSMUSG00 000037580	GTP cyclohydrolase 1 Source MGI Symbol Acc MGI 95675
D10	SBM0852122	ENSMUST00000 057454.3	Gchfr	ENSMUSG00 000046814	GTP cyclohydrolase I feedback regulator Source MGI Symbol Acc MGI 2443977
D11	SBM0892488	ENSMUST00000 191942.1	Gucy1a1	ENSMUSG00 000033910	guanylate cyclase 1, soluble, alpha 1 Source MGI Symbol Acc MGI 1926562
D12	SBM0781907	ENSMUST00000 193085.1	Gucy1b1	ENSMUSG00 000028005	guanylate cyclase 1, soluble, beta 1 Source MGI Symbol Acc MGI 1860604
E01	SBM1003614	ENSMUST00000 110464.7	Hif1a	ENSMUSG00 000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
E02	SBM0795463	ENSMUST00000 203638.2	Itp1	ENSMUSG00 000030102	inositol 1,4,5-trisphosphate receptor 1 Source MGI Symbol Acc MGI 96623
E03	SBM0950108	ENSMUST00000 053273.14	Itp2	ENSMUSG00 000030287	inositol 1,4,5-trisphosphate receptor 2 Source MGI Symbol Acc MGI 99418
E04	SBM0733806	ENSMUST00000 032374.8	Kcnj8	ENSMUSG00 000030247	potassium inwardly-rectifying channel, subfamily J, member 8 Source MGI Symbol Acc MGI 1100508
E05	SBM0828328	ENSMUST00000 065788.14	Kcnma1	ENSMUSG00 000063142	potassium large conductance calcium-activated channel, subfamily M, alpha member 1 Source MGI Symbol Acc MGI 99923
E06	SBM0942346	ENSMUST00000 023589.14	Kng1	ENSMUSG00 000022875	kininogen 1 Source MGI Symbol Acc MGI 1097705
E07	SBM0720049	ENSMUST00000 231589.1	Mylk	ENSMUSG00 000022836	myosin, light polypeptide kinase Source MGI Symbol Acc MGI 894806
E08	SBM0689951	ENSMUST00000 028970.7	Mylk2	ENSMUSG00 000027470	myosin, light polypeptide kinase 2, skeletal muscle Source MGI Symbol Acc MGI 2139434
E09	SBM0681619	ENSMUST00000 030834.6	Nos3	ENSMUSG00 000028978	nitric oxide synthase 3, endothelial cell Source MGI Symbol Acc MGI 97362
E10	SBM0847406	ENSMUST00000 107829.8	Nosip	ENSMUSG00 000003421	nitric oxide synthase interacting protein Source MGI Symbol Acc MGI 1913644
E11	SBM1039201	ENSMUST00000 141276.1	Nostrin	ENSMUSG00 000034738	nitric oxide synthase trafficker Source MGI Symbol Acc MGI 3606242
E12	SBM1033372	ENSMUST00000 103231.4	Nppb	ENSMUSG00 000029019	natriuretic peptide type B Source MGI Symbol Acc MGI 97368
F01	SBM1006777	ENSMUST00000 027449.5	Nppc	ENSMUSG00 000026241	natriuretic peptide type C Source MGI Symbol Acc MGI 97369
F02	SBM0913786	ENSMUST00000 029540.12	Npr1	ENSMUSG00 000027931	natriuretic peptide receptor 1 Source MGI Symbol Acc MGI 97371
F03	SBM0855010	ENSMUST00000 039303.6	Npy1r	ENSMUSG00 000036437	neuropeptide Y receptor Y1 Source MGI Symbol Acc MGI 104963
F04	SBM0699665	ENSMUST00000 142664.2	P2rx4	ENSMUSG00 000029470	purinergic receptor P2X, ligand-gated ion channel 4 Source MGI Symbol Acc MGI 1338859
F05	SBM0986529	ENSMUST00000 189060.2	Pde3a	ENSMUSG00 000041741	phosphodiesterase 3A, cGMP inhibited Source MGI Symbol Acc MGI 1860764
F06	SBM1076925	ENSMUST00000 149455.1	Pde3b	ENSMUSG00 000030671	phosphodiesterase 3B, cGMP-inhibited Source MGI Symbol Acc MGI 1333863
F07	SBM0890864	ENSMUST00000 199253.1	Pde5a	ENSMUSG00 000053965	phosphodiesterase 5A, cGMP-specific Source MGI Symbol Acc MGI 2651499
F08	SBM0816988	ENSMUST00000 017077.13	Plcg1	ENSMUSG00 000016933	phospholipase C, gamma 1 Source MGI Symbol Acc MGI 97615
F09	SBM0855891	ENSMUST00000 081232.8	Plcg2	ENSMUSG00 000034330	phospholipase C, gamma 2 Source MGI Symbol Acc MGI 97616
F10	SBM0904083	ENSMUST00000 073581.5	Prkg1	ENSMUSG00 000052920	protein kinase, cGMP-dependent, type I Source MGI Symbol Acc MGI 108174

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0941562	ENSMUST00000162619.7	Prkg2	ENSMUSG0000029334	protein kinase, cGMP-dependent, type II Source MGI Symbol Acc MGI 108173
F12	SBM0901088	ENSMUST00000144408.1	Ptgir	ENSMUSG0000043017	prostaglandin I receptor (IP) Source MGI Symbol Acc MGI 99535
G01	SBM0775877	ENSMUST00000149930.2	Ptgs1	ENSMUSG0000047250	prostaglandin-endoperoxide synthase 1 Source MGI Symbol Acc MGI 97797
G02	SBM0782881	ENSMUST00000035065.8	Ptgs2	ENSMUSG0000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
G03	SBM0691293	ENSMUST00000094556.2	Ren1	ENSMUSG0000070645	renin 1 structural Source MGI Symbol Acc MGI 97898
G04	SBM0772480	ENSMUST00000055676.3	S1pr1	ENSMUSG0000045092	sphingosine-1-phosphate receptor 1 Source MGI Symbol Acc MGI 1096355
G05	SBM0887162	ENSMUST00000176110.7	Scnn1a	ENSMUSG0000030340	sodium channel, nonvoltage-gated 1 alpha Source MGI Symbol Acc MGI 101782
G06	SBM0752872	ENSMUST00000206079.1	Scnn1b	ENSMUSG0000030873	sodium channel, nonvoltage-gated 1 beta Source MGI Symbol Acc MGI 104696
G07	SBM0991429	ENSMUST00000000221.5	Scnn1g	ENSMUSG0000000216	sodium channel, nonvoltage-gated 1 gamma Source MGI Symbol Acc MGI 104695
G08	SBM0676391	ENSMUST00000138257.7	Slc7a1	ENSMUSG0000041313	solute carrier family 7 (cationic amino acid transporter, y+ system), member 1 Source MGI Symbol Acc MGI 88117
G09	SBM0831314	ENSMUST00000063396.9	Sphk1	ENSMUSG0000061878	sphingosine kinase 1 Source MGI Symbol Acc MGI 1316649
G10	SBM0952215	ENSMUST00000072836.6	Sphk2	ENSMUSG0000057342	sphingosine kinase 2 Source MGI Symbol Acc MGI 1861380
G11	SBM0825630	ENSMUST00000030803.1	Uts2	ENSMUSG0000028963	urotensin 2 Source MGI Symbol Acc MGI 1346329
G12	SBM0857165	ENSMUST00000039044.1	Uts2r	ENSMUSG0000039321	urotensin 2 receptor Source MGI Symbol Acc MGI 2183450
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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