

# QuantiNova® LNA® Probe PCR Focus Panels (Rotor-Gene® Format)

## Mouse Hypertension

Cat. no. 249955 UPMM-037ZR

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 (Rotor-Gene): QuantiNova LNA Probe PCR Focus Panel

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc® (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance. 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	Ace	Ace2	Acta2	Adm	Adra1b	Adra1d	Adrb1	Agf1	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	Edna	Ednb	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 Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM092937 6	ENSMUST00000 151657.1	Ace	ENSMUSG00 000020681	angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 Source MGI Symbol Acc MGI 87874
A02	UPFM086817 2	ENSMUST00000 112271.9	Ace2	ENSMUSG00 000015405	angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 Source MGI Symbol Acc MGI 1917258
A03	UPFM065194 2	ENSMUST00000 039631.9	Acta2	ENSMUSG00 000035783	actin, alpha 2, smooth muscle, aorta Source MGI Symbol Acc MGI 87909
A04	UPFM099995 4	ENSMUST00000 033054.9	Adm	ENSMUSG00 000030790	adrenomedullin Source MGI Symbol Acc MGI 108058
A05	UPFM069335 9	ENSMUST00000 139906.1	Adra1b	ENSMUSG00 000050541	adrenergic receptor, alpha 1b Source MGI Symbol Acc MGI 104774
A06	UPFM067017 8	ENSMUST00000 103184.3	Adra1d	ENSMUSG00 000027335	adrenergic receptor, alpha 1d Source MGI Symbol Acc MGI 106673
A07	UPFM072017 1	ENSMUST00000 038949.5	Adrb1	ENSMUSG00 000035283	adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937
A08	UPFM088419 7	ENSMUST00000 063278.6	Agf	ENSMUSG00 000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member 8) Source MGI Symbol Acc MGI 87963
A09	UPFM072210 8	ENSMUST00000 222370.1	Agtr1a	ENSMUSG00 000049115	angiotensin II receptor, type 1a Source MGI Symbol Acc MGI 87964
A10	UPFM074828 8	ENSMUST00000 068316.7	Agtr1b	ENSMUSG00 000054988	angiotensin II receptor, type 1b Source MGI Symbol Acc MGI 87965
A11	UPFM100051 6	ENSMUST00000 131150.1	Agtr2	ENSMUSG00 000068122	angiotensin II receptor, type 2 Source MGI Symbol Acc MGI 87966
A12	UPFM067709 5	ENSMUST00000 164547.7	Alox5	ENSMUSG00 000025701	arachidonate 5-lipoxygenase Source MGI Symbol Acc MGI 87999
B01	UPFM070049 1	ENSMUST00000 021550.6	Arg2	ENSMUSG00 000021125	arginase type II Source MGI Symbol Acc MGI 1330806
B02	UPFM063735 9	ENSMUST00000 177189.7	Atp2c1	ENSMUSG00 000032570	ATPase, Ca++-sequestering Source MGI Symbol Acc MGI 1889008
B03	UPFM066327 3	ENSMUST00000 137277.1	Atp6ap2	ENSMUSG00 000031007	ATPase, H+ transporting, lysosomal accessory protein 2 Source MGI Symbol Acc MGI 1917745
B04	UPFM074916 1	ENSMUST00000 046001.6	Avp	ENSMUSG00 000037727	arginine vasopressin Source MGI Symbol Acc MGI 88121
B05	UPFM094966 6	ENSMUST00000 020323.6	Avpr1a	ENSMUSG00 000020123	arginine vasopressin receptor 1A Source MGI Symbol Acc MGI 1859216
B06	UPFM064121 6	ENSMUST00000 190410.1	Avpr1b	ENSMUSG00 000026432	arginine vasopressin receptor 1B Source MGI Symbol Acc MGI 1347010
B07	UPFM072323 0	ENSMUST00000 182899.1	Bdkrb1	ENSMUSG00 000041347	bradykinin receptor, beta 1 Source MGI Symbol Acc MGI 88144
B08	UPFM096973 2	ENSMUST00000 001652.6	Bdkrb2	ENSMUSG00 000021070	bradykinin receptor, beta 2 Source MGI Symbol Acc MGI 102845
B09	UPFM080425 7	ENSMUST00000 190659.1	Bmpr2	ENSMUSG00 000067336	bone morphogenetic protein receptor, type II (serine/threonine kinase) Source MGI Symbol Acc MGI 1095407
B10	UPFM066844 8	ENSMUST00000 112790.8	Cacna1c	ENSMUSG00 000051331	calcium channel, voltage-dependent, L type, alpha 1C subunit Source MGI Symbol Acc MGI 103013
B11	UPFM069603 9	ENSMUST00000 032906.10	Calca	ENSMUSG00 000030669	calcitonin/calcitonin-related polypeptide, alpha Source MGI Symbol Acc MGI 2151253
B12	UPFM094042 8	ENSMUST00000 150901.1	Cav1	ENSMUSG00 000007655	caveolin 1, caveolae protein Source MGI Symbol Acc MGI 102709
C01	UPFM097977 1	ENSMUST00000 028515.3	Chrna1	ENSMUSG00 000027107	cholinergic receptor, nicotinic, alpha polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87885
C02	UPFM062186 5	ENSMUST00000 045971.8	Chrnb1	ENSMUSG00 000041189	cholinergic receptor, nicotinic, beta polypeptide 1 (muscle) Source MGI Symbol Acc MGI 87890
C03	UPFM089518 9	ENSMUST00000 172599.1	Clic1	ENSMUSG00 000007041	chloride intracellular channel 1 Source MGI Symbol Acc MGI 2148924
C04	UPFM082785 2	ENSMUST00000 037099.8	Clic4	ENSMUSG00 000037242	chloride intracellular channel 4 (mitochondrial) Source MGI Symbol Acc MGI 1352754
C05	UPFM093005 3	ENSMUST00000 024755.6	Clic5	ENSMUSG00 000023959	chloride intracellular channel 5 Source MGI Symbol Acc MGI 1917912
C06	UPFM067426 8	ENSMUST00000 169997.5	Cnga1	ENSMUSG00 000067220	cyclic nucleotide gated channel alpha 1 Source MGI Symbol Acc MGI 88436
C07	UPFM068767 3	ENSMUST00000 006020.7	Cnga2	ENSMUSG00 000005864	cyclic nucleotide gated channel alpha 2 Source MGI Symbol Acc MGI 108040
C08	UPFM064290 6	ENSMUST00000 194195.5	Cnga3	ENSMUSG00 000026114	cyclic nucleotide gated channel alpha 3 Source MGI Symbol Acc MGI 1341818
C09	UPFM073128 0	ENSMUST00000 033187.5	Cnga4	ENSMUSG00 000030897	cyclic nucleotide gated channel alpha 4 Source MGI Symbol Acc MGI 2664099
C10	UPFM080161 5	ENSMUST00000 121162.2	Cngb1	ENSMUSG00 000031789	cyclic nucleotide gated channel beta 1 Source MGI Symbol Acc MGI 2664102
	UPFM087118	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	1	102999.1	Cngb3	000056494	cyclic nucleotide gated channel beta 3 Source MGI Symbol Acc MGI 1353562
C12	UPFM098632 2	ENSMUST00000 027144.7	Cps1	ENSMUSG00 000025991	carbamoyl-phosphate synthetase 1 Source MGI Symbol Acc MGI 891996
D01	UPFM096057 6	ENSMUST00000 023390.4	Drd3	ENSMUSG00 000022705	dopamine receptor D3 Source MGI Symbol Acc MGI 94925
D02	UPFM092993 2	ENSMUST00000 041646.3	Drd5	ENSMUSG00 000039358	dopamine receptor D5 Source MGI Symbol Acc MGI 94927
D03	UPFM081156 2	ENSMUST00000 102518.9	Ece1	ENSMUSG00 000057530	endothelin converting enzyme 1 Source MGI Symbol Acc MGI 1101357
D04	UPFM063234 4	ENSMUST00000 021796.8	Edn1	ENSMUSG00 000021367	endothelin 1 Source MGI Symbol Acc MGI 95283
D05	UPFM078925 1	ENSMUST00000 030384.4	Edn2	ENSMUSG00 000028635	endothelin 2 Source MGI Symbol Acc MGI 95284
D06	UPFM066650 7	ENSMUST00000 146561.1	Ednra	ENSMUSG00 000031616	endothelin receptor type A Source MGI Symbol Acc MGI 105923
D07	UPFM076805 2	ENSMUST00000 227824.1	Ednrb	ENSMUSG00 000022122	endothelin receptor type B Source MGI Symbol Acc MGI 102720
D08	UPFM061929 1	ENSMUST00000 225309.1	Ephx2	ENSMUSG00 000022040	epoxide hydrolase 2, cytoplasmic Source MGI Symbol Acc MGI 99500
D09	UPFM098344 7	ENSMUST00000 089959.6	Gch1	ENSMUSG00 000037580	GTP cyclohydrolase 1 Source MGI Symbol Acc MGI 95675
D10	UPFM076646 2	ENSMUST00000 057454.3	Gchfr	ENSMUSG00 000046814	GTP cyclohydrolase I feedback regulator Source MGI Symbol Acc MGI 2443977
D11	UPFM066016 7	ENSMUST00000 191942.1	Gucy1a1	ENSMUSG00 000033910	guanylate cyclase 1, soluble, alpha 1 Source MGI Symbol Acc MGI 1926562
D12	UPFM079623 2	ENSMUST00000 029635.13	Gucy1b1	ENSMUSG00 000028005	guanylate cyclase 1, soluble, beta 1 Source MGI Symbol Acc MGI 1860604
E01	UPFM090240 6	ENSMUST00000 110461.7	Hif1a	ENSMUSG00 000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
E02	UPFM098421 5	ENSMUST00000 203995.1	Itpr1	ENSMUSG00 000030102	inositol 1,4,5-trisphosphate receptor 1 Source MGI Symbol Acc MGI 96623
E03	UPFM095040 9	ENSMUST00000 139732.3	Itpr2	ENSMUSG00 000030287	inositol 1,4,5-trisphosphate receptor 2 Source MGI Symbol Acc MGI 99418
E04	UPFM068169 3	ENSMUST00000 203945.2	Kcnj8	ENSMUSG00 000030247	potassium inwardly-rectifying channel, subfamily J, member 8 Source MGI Symbol Acc MGI 1100508
E05	UPFM082331 1	ENSMUST00000 225305.1	Kcnma1	ENSMUSG00 000063142	potassium large conductance calcium-activated channel, subfamily M, alpha member 1 Source MGI Symbol Acc MGI 99923
E06	UPFM064264 3	ENSMUST00000 125790.7	Kng1	ENSMUSG00 000022875	kininogen 1 Source MGI Symbol Acc MGI 1097705
E07	UPFM075141 4	ENSMUST00000 231589.1	Mylk	ENSMUSG00 000022836	myosin, light polypeptide kinase Source MGI Symbol Acc MGI 894806
E08	UPFM100241 0	ENSMUST00000 028970.7	Mylk2	ENSMUSG00 000027470	myosin, light polypeptide kinase 2, skeletal muscle Source MGI Symbol Acc MGI 2139434
E09	UPFM067358 1	ENSMUST00000 115090.5	Nos3	ENSMUSG00 000028978	nitric oxide synthase 3, endothelial cell Source MGI Symbol Acc MGI 97362
E10	UPFM075516 0	ENSMUST00000 107829.8	Nosip	ENSMUSG00 000003421	nitric oxide synthase interacting protein Source MGI Symbol Acc MGI 1913644
E11	UPFM079465 5	ENSMUST00000 141276.1	Nostrin	ENSMUSG00 000034738	nitric oxide synthase trafficker Source MGI Symbol Acc MGI 3606242
E12	UPFM079846 6	ENSMUST00000 103231.4	Nppb	ENSMUSG00 000029019	natriuretic peptide type B Source MGI Symbol Acc MGI 97368
F01	UPFM083357 5	ENSMUST00000 027449.5	Nppc	ENSMUSG00 000026241	natriuretic peptide type C Source MGI Symbol Acc MGI 97369
F02	UPFM099009 8	ENSMUST00000 029540.12	Npr1	ENSMUSG00 000027931	natriuretic peptide receptor 1 Source MGI Symbol Acc MGI 97371
F03	UPFM089859 6	ENSMUST00000 039303.6	Npy1r	ENSMUSG00 000036437	neuropeptide Y receptor Y1 Source MGI Symbol Acc MGI 104963
F04	UPFM082650 0	ENSMUST00000 139631.7	P2rx4	ENSMUSG00 000029470	purinergic receptor P2X, ligand-gated ion channel 4 Source MGI Symbol Acc MGI 1338859
F05	UPFM072544 5	ENSMUST00000 189060.2	Pde3a	ENSMUSG00 000041741	phosphodiesterase 3A, cGMP inhibited Source MGI Symbol Acc MGI 1860764
F06	UPFM085178 0	ENSMUST00000 032909.8	Pde3b	ENSMUSG00 000030671	phosphodiesterase 3B, cGMP-inhibited Source MGI Symbol Acc MGI 1333863
F07	UPFM066196 4	ENSMUST00000 200389.1	Pde5a	ENSMUSG00 000053965	phosphodiesterase 5A, cGMP-specific Source MGI Symbol Acc MGI 2651499
F08	UPFM097276 2	ENSMUST00000 109462.7	Plcg1	ENSMUSG00 000016933	phospholipase C, gamma 1 Source MGI Symbol Acc MGI 97615
F09	UPFM091172 0	ENSMUST00000 081232.8	Plcg2	ENSMUSG00 000034330	phospholipase C, gamma 2 Source MGI Symbol Acc MGI 97616
F10	UPFM096976 6	ENSMUST00000 065067.13	Prkg1	ENSMUSG00 000052920	protein kinase, cGMP-dependent, type I Source MGI Symbol Acc MGI 108174

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM089155 6	ENSMUST00000 162147.5	Prkg2	ENSMUSG00 000029334	protein kinase, cGMP-dependent, type II Source MGI Symbol Acc MGI 108173
F12	UPFM086954 8	ENSMUST00000 086101.5	Ptgir	ENSMUSG00 000043017	prostaglandin I receptor (IP) Source MGI Symbol Acc MGI 99535
G01	UPFM062184 9	ENSMUST00000 149930.2	Ptgs1	ENSMUSG00 000047250	prostaglandin-endoperoxide synthase 1 Source MGI Symbol Acc MGI 97797
G02	UPFM100449 2	ENSMUST00000 190784.1	Ptgs2	ENSMUSG00 000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
G03	UPFM088061 4	ENSMUST00000 094556.2	Ren1	ENSMUSG00 000070645	renin 1 structural Source MGI Symbol Acc MGI 97898
G04	UPFM085771 8	ENSMUST00000 055676.3	S1pr1	ENSMUSG00 000045092	sphingosine-1-phosphate receptor 1 Source MGI Symbol Acc MGI 1096355
G05	UPFM063406 8	ENSMUST00000 177329.1	Scnn1a	ENSMUSG00 000030340	sodium channel, nonvoltage-gated 1 alpha Source MGI Symbol Acc MGI 101782
G06	UPFM089063 0	ENSMUST00000 205520.1	Scnn1b	ENSMUSG00 000030873	sodium channel, nonvoltage-gated 1 beta Source MGI Symbol Acc MGI 104696
G07	UPFM066226 8	ENSMUST00000 000221.5	Scnn1g	ENSMUSG00 000000216	sodium channel, nonvoltage-gated 1 gamma Source MGI Symbol Acc MGI 104695
G08	UPFM090868 6	ENSMUST00000 138257.7	Slc7a1	ENSMUSG00 000041313	solute carrier family 7 (cationic amino acid transporter, y+ system), member 1 Source MGI Symbol Acc MGI 88117
G09	UPFM077679 3	ENSMUST00000 063446.12	Sphk1	ENSMUSG00 000061878	sphingosine kinase 1 Source MGI Symbol Acc MGI 1316649
G10	UPFM081428 6	ENSMUST00000 211340.1	Sphk2	ENSMUSG00 000057342	sphingosine kinase 2 Source MGI Symbol Acc MGI 1861380
G11	UPFM100953 2	ENSMUST00000 030803.1	Uts2	ENSMUSG00 000028963	urotensin 2 Source MGI Symbol Acc MGI 1346329
G12	UPFM083086 2	ENSMUST00000 039044.1	Uts2r	ENSMUSG00 000039321	urotensin 2 receptor Source MGI Symbol Acc MGI 2183450
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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