

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

## Mouse cAMP / Calcium Signaling PathwayFinder

Cat. no. 249955 UPMM-066ZA

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 (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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	Adrb1	Ahr	Amd1	Areg	Atf3	Bcl2	Bdnf	Brccl	Calb1	Calb2	Calcr1	Calm1
B	Calr	Ccna1	Ccnd1	Cdk5	Cdkn2b	Cgga	Chga	Cnn1	Creb1	Crem	Crh	Ccn1
C	Ddit3	Dusp1	Egr1	Egr2	Eno2	Fgf6	Fos	Fosb	Gcg	Gem	Hk2	Hspa4
D	Hspa5	Il2	Il6	Inhba	Junb	Jund	Kcna5	Krtap14	Ldha	Maf	Mif	Ncam1
E	Nf1	Nos2	Npy	Pck2	Pcna	Penk	Per1	Plat	Pln	Pmaip1	Pou1f1	Pou2af1
F	Ppp1r15a	Ppp2ca	Prkar1a	Prl	Ptgs2	Rb1	S100a8	S100a9	S100g	Scg2	Sgk1	Slc18a1
G	Sod2	Srf	Sst	Sstr2	Stat3	Tocr1	Tgfb3	Th	Thbs1	Tnf	Vcl	Vip
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	UPFM072017 1	ENSMUST00000 038949.5	Adrb1	ENSMUSG00 000035283	adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937
A02	UPFM087474 3	ENSMUST00000 116436.8	Ahr	ENSMUSG00 000019256	aryl-hydrocarbon receptor Source MGI Symbol Acc MGI 105043
A03	UPFM099176 6	ENSMUST00000 214698.1	Amd1	ENSMUSG00 000075232	S-adenosylmethionine decarboxylase 1 Source MGI Symbol Acc MGI 88004
A04	UPFM097558 1	ENSMUST00000 031325.5	Areg	ENSMUSG00 000029378	amphiregulin Source MGI Symbol Acc MGI 88068
A05	UPFM099470 5	ENSMUST00000 027941.13	Atf3	ENSMUSG00 000026628	activating transcription factor 3 Source MGI Symbol Acc MGI 109384
A06	UPFM063585 3	ENSMUST00000 112751.1	Bcl2	ENSMUSG00 000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A07	UPFM085815 5	ENSMUST00000 111049.8	Bdnf	ENSMUSG00 000048482	brain derived neurotrophic factor Source MGI Symbol Acc MGI 88145
A08	UPFM098990 7	ENSMUST00000 156843.1	Brc1	ENSMUSG00 000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
A09	UPFM086752 3	ENSMUST00000 136266.1	Calb1	ENSMUSG00 000028222	calbindin 1 Source MGI Symbol Acc MGI 88248
A10	UPFM098867 3	ENSMUST00000 212297.1	Calb2	ENSMUSG00 000003657	calbindin 2 Source MGI Symbol Acc MGI 101914
A11	UPFM094297 6	ENSMUST00000 074262.8	Calcr1	ENSMUSG00 000059588	calcitonin receptor-like Source MGI Symbol Acc MGI 1926944
A12	UPFM068642 1	ENSMUST00000 110082.10	Calm1	ENSMUSG00 000001175	calmodulin 1 Source MGI Symbol Acc MGI 88251
B01	UPFM080836 1	ENSMUST00000 003912.6	Calr	ENSMUSG00 000003814	calreticulin Source MGI Symbol Acc MGI 88252
B02	UPFM079498 3	ENSMUST00000 029368.6	Ccna1	ENSMUSG00 000027793	cyclin A1 Source MGI Symbol Acc MGI 108042
B03	UPFM093346 3	ENSMUST00000 208193.1	Ccnd1	ENSMUSG00 000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
B04	UPFM089556 8	ENSMUST00000 030814.10	Cdk5	ENSMUSG00 000028969	cyclin-dependent kinase 5 Source MGI Symbol Acc MGI 101765
B05	UPFM092812 3	ENSMUST00000 097981.5	Cdkn2b	ENSMUSG00 000073802	cyclin dependent kinase inhibitor 2B Source MGI Symbol Acc MGI 104737
B06	UPFM088755 0	ENSMUST00000 029975.9	Cga	ENSMUSG00 000028298	glycoprotein hormones, alpha subunit Source MGI Symbol Acc MGI 88390
B07	UPFM068399 9	ENSMUST00000 223100.1	Chga	ENSMUSG00 000021194	chromogranin A Source MGI Symbol Acc MGI 88394
B08	UPFM081622 5	ENSMUST00000 216872.1	Cnn1	ENSMUSG00 000001349	calponin 1 Source MGI Symbol Acc MGI 104979
B09	UPFM085293 8	ENSMUST00000 087366.10	Creb1	ENSMUSG00 000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
B10	UPFM112635 2	ENSMUST00000 123672.7	Creml	ENSMUSG00 000063889	cAMP responsive element modulator Source MGI Symbol Acc MGI 88495
B11	UPFM094272 2	ENSMUST00000 061294.4	Crh	ENSMUSG00 000049796	corticotropin releasing hormone Source MGI Symbol Acc MGI 88496
B12	UPFM077564 6	ENSMUST00000 029846.4	Ccn1	ENSMUSG00 000028195	cellular communication network factor 1 Source MGI Symbol Acc MGI 88613
C01	UPFM076656 9	ENSMUST00000 026475.14	Ddit3	ENSMUSG00 000025408	DNA-damage inducible transcript 3 Source MGI Symbol Acc MGI 109247
C02	UPFM086453 7	ENSMUST00000 236661.1	Dusp1	ENSMUSG00 000024190	dual specificity phosphatase 1 Source MGI Symbol Acc MGI 105120
C03	UPFM085434 3	ENSMUST00000 165033.1	Egr1	ENSMUSG00 000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
C04	UPFM068711 9	ENSMUST00000 145936.1	Egr2	ENSMUSG00 000037868	early growth response 2 Source MGI Symbol Acc MGI 95296
C05	UPFM064944 8	ENSMUST00000 112476.7	Eno2	ENSMUSG00 000004267	enolase 2, gamma neuronal Source MGI Symbol Acc MGI 95394
C06	UPFM097519 7	ENSMUST00000 000187.6	Fgf6	ENSMUSG00 000000183	fibroblast growth factor 6 Source MGI Symbol Acc MGI 95520
C07	UPFM076456 3	ENSMUST00000 136122.7	Fos	ENSMUSG00 000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
C08	UPFM071111 8	ENSMUST00000 207716.1	Fosb	ENSMUSG00 000003545	FBJ osteosarcoma oncogene B Source MGI Symbol Acc MGI 95575
C09	UPFM079261 6	ENSMUST00000 136686.1	Gcg	ENSMUSG00 000000394	glucagon Source MGI Symbol Acc MGI 95674
C10	UPFM093430 6	ENSMUST00000 108304.8	Gem	ENSMUSG00 000028214	GTP binding protein (gene overexpressed in skeletal muscle) Source MGI Symbol Acc MGI 99844
	UPFM074256	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	7	000642.10	Hk2	000000628	hexokinase 2 Source MGI Symbol Acc MGI 1315197
C12	UPFM062819 4	ENSMUST00000 020630.7	Hspa4	ENSMUSG00 000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
D01	UPFM100460 3	ENSMUST00000 100171.2	Hspa5	ENSMUSG00 000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
D02	UPFM082222 9	ENSMUST00000 029275.5	Il2	ENSMUSG00 000027720	interleukin 2 Source MGI Symbol Acc MGI 96548
D03	UPFM072909 9	ENSMUST00000 195978.4	Il6	ENSMUSG00 000025746	interleukin 6 Source MGI Symbol Acc MGI 96559
D04	UPFM081117 7	ENSMUST00000 164993.1	Inhba	ENSMUSG00 000041324	inhibin beta-A Source MGI Symbol Acc MGI 96570
D05	UPFM090452 1	ENSMUST00000 064922.6	Junb	ENSMUSG00 000052837	jun B proto-oncogene Source MGI Symbol Acc MGI 96647
D06	UPFM100589 8	ENSMUST00000 095267.5	Jund	ENSMUSG00 000071076	jun D proto-oncogene Source MGI Symbol Acc MGI 96648
D07	UPFM084005 2	ENSMUST00000 060972.4	Kcna5	ENSMUSG00 000045534	potassium voltage-gated channel, shaker-related subfamily, member 5 Source MGI Symbol Acc MGI 96662
D08	UPFM087957 5	ENSMUST00000 099562.3	Krtap14	ENSMUSG00 000074928	keratin associated protein 14 Source MGI Symbol Acc MGI 1346079
D09	UPFM085535 7	ENSMUST00000 125862.7	Ldha	ENSMUSG00 000063229	lactate dehydrogenase A Source MGI Symbol Acc MGI 96759
D10	UPFM080165 6	ENSMUST00000 109104.1	Maf	ENSMUSG00 000055435	avian musculoaponeurotic fibrosarcoma oncogene homolog Source MGI Symbol Acc MGI 96909
D11	UPFM117294 1	ENSMUST00000 038169.7	Mif	ENSMUSG00 000033307	macrophage migration inhibitory factor (glycosylation-inhibiting factor) Source MGI Symbol Acc MGI 96982
D12	UPFM068412 7	ENSMUST00000 166811.8	Ncam1	ENSMUSG00 000039542	neural cell adhesion molecule 1 Source MGI Symbol Acc MGI 97281
E01	UPFM099655 1	ENSMUST00000 122917.7	Nf1	ENSMUSG00 000020716	neurofibromin 1 Source MGI Symbol Acc MGI 97306
E02	UPFM076964 2	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
E03	UPFM082608 4	ENSMUST00000 031843.6	Npy	ENSMUSG00 000029819	neuropeptide Y Source MGI Symbol Acc MGI 97374
E04	UPFM100687 4	ENSMUST00000 226231.1	Pck2	ENSMUSG00 000040618	phosphoenolpyruvate carboxykinase 2 (mitochondrial) Source MGI Symbol Acc MGI 1860456
E05	UPFM069101 9	ENSMUST00000 140338.1	Pcna	ENSMUSG00 000027342	proliferating cell nuclear antigen Source MGI Symbol Acc MGI 97503
E06	UPFM084676 5	ENSMUST00000 133567.1	Penk	ENSMUSG00 000045573	preproenkephalin Source MGI Symbol Acc MGI 104629
E07	UPFM099385 2	ENSMUST00000 142392.7	Per1	ENSMUSG00 000020893	period circadian clock 1 Source MGI Symbol Acc MGI 1098283
E08	UPFM093204 7	ENSMUST00000 033941.6	Plat	ENSMUSG00 000031538	plasminogen activator, tissue Source MGI Symbol Acc MGI 97610
E09	UPFM070175 7	ENSMUST00000 220197.1	Pln	ENSMUSG00 000038583	phospholamban Source MGI Symbol Acc MGI 97622
E10	UPFM070769 2	ENSMUST00000 025399.8	Pmaip1	ENSMUSG00 000024521	phorbol-12-myristate-13-acetate-induced protein 1 Source MGI Symbol Acc MGI 1930146
E11	UPFM088824 3	ENSMUST00000 176330.7	Pou1f1	ENSMUSG00 000004842	POU domain, class 1, transcription factor 1 Source MGI Symbol Acc MGI 97588
E12	UPFM096914 5	ENSMUST00000 214322.1	Pou2af1	ENSMUSG00 000032053	POU domain, class 2, associating factor 1 Source MGI Symbol Acc MGI 105086
F01	UPFM078021 1	ENSMUST00000 042105.10	Ppp1r15a	ENSMUSG00 000040435	protein phosphatase 1, regulatory subunit 15A Source MGI Symbol Acc MGI 1927072
F02	UPFM098672 6	ENSMUST00000 020608.2	Ppp2ca	ENSMUSG00 000020349	protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform Source MGI Symbol Acc MGI 1321159
F03	UPFM061847 4	ENSMUST00000 106676.7	Prkar1a	ENSMUSG00 000020612	protein kinase, cAMP dependent regulatory, type I, alpha Source MGI Symbol Acc MGI 104878
F04	UPFM097611 3	ENSMUST00000 110369.9	Prl	ENSMUSG00 000021342	prolactin Source MGI Symbol Acc MGI 97762
F05	UPFM100449 2	ENSMUST00000 190784.1	Ptgs2	ENSMUSG00 000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
F06	UPFM077278 8	ENSMUST00000 022701.6	Rb1	ENSMUSG00 000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
F07	UPFM084819 8	ENSMUST00000 069927.9	S100a8	ENSMUSG00 000056054	S100 calcium binding protein A8 (calgranulin A) Source MGI Symbol Acc MGI 88244
F08	UPFM079837 4	ENSMUST00000 069960.11	S100a9	ENSMUSG00 000056071	S100 calcium binding protein A9 (calgranulin B) Source MGI Symbol Acc MGI 1338947
F09	UPFM100178 5	ENSMUST00000 038769.2	S100g	ENSMUSG00 000040808	S100 calcium binding protein G Source MGI Symbol Acc MGI 104528
F10	UPFM094739 8	ENSMUST00000 049972.5	Scg2	ENSMUSG00 000050711	secretogranin II Source MGI Symbol Acc MGI 103033

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM086165 8	ENSMUST00000 020145.11	Sgk1	ENSMUSG00 000019970	serum/glucocorticoid regulated kinase 1 Source MGI Symbol Acc MGI 1340062
F12	UPFM089152 9	ENSMUST00000 148856.1	Slc18a1	ENSMUSG00 000036330	solute carrier family 18 (vesicular monoamine), member 1 Source MGI Symbol Acc MGI 106684
G01	UPFM095033 7	ENSMUST00000 233897.1	Sod2	ENSMUSG00 000006818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352
G02	UPFM087348 3	ENSMUST00000 015749.6	Srf	ENSMUSG00 000015605	serum response factor Source MGI Symbol Acc MGI 106658
G03	UPFM081085 2	ENSMUST00000 004480.4	Sst	ENSMUSG00 000004366	somatostatin Source MGI Symbol Acc MGI 98326
G04	UPFM093389 3	ENSMUST00000 106630.1	Sstr2	ENSMUSG00 000047904	somatostatin receptor 2 Source MGI Symbol Acc MGI 98328
G05	UPFM098484 5	ENSMUST00000 092671.11	Stat3	ENSMUSG00 000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G06	UPFM062175 6	ENSMUST00000 032122.10	Tacr1	ENSMUSG00 000030043	tachykinin receptor 1 Source MGI Symbol Acc MGI 98475
G07	UPFM086737 6	ENSMUST00000 003687.7	Tgfb3	ENSMUSG00 000021253	transforming growth factor, beta 3 Source MGI Symbol Acc MGI 98727
G08	UPFM076005 4	ENSMUST00000 000219.9	Th	ENSMUSG00 000000214	tyrosine hydroxylase Source MGI Symbol Acc MGI 98735
G09	UPFM072927 9	ENSMUST00000 039559.8	Thbs1	ENSMUSG00 000040152	thrombospondin 1 Source MGI Symbol Acc MGI 98737
G10	UPFM063847 1	ENSMUST00000 025263.14	Tnf	ENSMUSG00 000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G11	UPFM069252 2	ENSMUST00000 022369.8	Vcl	ENSMUSG00 000021823	vinculin Source MGI Symbol Acc MGI 98927
G12	UPFM083312 5	ENSMUST00000 217331.1	Vip	ENSMUSG00 000019772	vasoactive intestinal polypeptide Source MGI Symbol Acc MGI 98933
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.

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