

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

## Mouse Tight Junctions

Cat. no. 249955 UPMM-143ZR

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	Actn1	Actn2	Actn3	Actn4	Amotl1	Arhgef2	Ash1l	Map3k20	Cask	Cldn20	Cdc42	Cdk4
B	Cgn	Cldn1	Cldn10	Cldn11	Cldn12	Cldn14	Cldn15	Cldn16	Cldn17	Cldn18	Cldn19	Cldn2
C	Cldn3	Cldn4	Cldn5	Cldn6	Cldn7	Cldn8	Cldn9	Crb1	Crb3	Ybx3	Csnk2a1	Csnk2a2
D	Csnk2b	Ctnna1	Ctnna2	Ctnna3	Ctnnb1	Cttn	Epb41	Esam	F11r	Gnai1	Hcls1	Icam1
E	Icam2	Igsf5	Ilk	Patj	Jam2	Jam3	Lig1	Lig2	Magi1	Magi3	Mark2	Afdn
F	Mpdz	Mpp5	Mpp6	Ocln	Pard3	Pard6a	Pard6b	Pecam1	Prkci	Prkcz	Plen	Rac1
G	Rhoa	Smurf1	Spla1	Sptan1	Splb	Sympk	Tiam1	Tiap1	Tjp1	Tjp2	Tjp3	Vapa
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	UPFM071945 8	ENSMUST00000 167327.1	Actn1	ENSMUSG00 000015143	actinin, alpha 1 Source MGI Symbol Acc MGI 2137706
A02	UPFM071617 8	ENSMUST00000 222034.1	Actn2	ENSMUSG00 000052374	actinin alpha 2 Source MGI Symbol Acc MGI 109192
A03	UPFM094492 8	ENSMUST00000 138811.1	Actn3	ENSMUSG00 000006457	actinin alpha 3 Source MGI Symbol Acc MGI 99678
A04	UPFM081506 8	ENSMUST00000 127210.7	Actn4	ENSMUSG00 000054808	actinin alpha 4 Source MGI Symbol Acc MGI 1890773
A05	UPFM073435 6	ENSMUST00000 161171.1	Amotl1	ENSMUSG00 000013076	angiomin-like 1 Source MGI Symbol Acc MGI 1922973
A06	UPFM078640 2	ENSMUST00000 177120.1	Arhgef2	ENSMUSG00 000028059	rho/rac guanine nucleotide exchange factor (GEF) 2 Source MGI Symbol Acc MGI 103264
A07	UPFM080372 3	ENSMUST00000 090933.4	Ash1l	ENSMUSG00 000028053	ASH1 like histone lysine methyltransferase Source MGI Symbol Acc MGI 2183158
A08	UPFM067314 8	ENSMUST00000 150126.7	Map3k20	ENSMUSG00 000004085	mitogen-activated protein kinase kinase kinase 20 Source MGI Symbol Acc MGI 2443258
A09	UPFM092452 5	ENSMUST00000 033321.10	Cask	ENSMUSG00 000031012	calcium/calmodulin-dependent serine protein kinase (MAGUK family) Source MGI Symbol Acc MGI 1309489
A10	UPFM065404 9	ENSMUST00000 232647.1	Cldn20	ENSMUSG00 000091530	claudin 20 Source MGI Symbol Acc MGI 3646757
A11	UPFM073725 4	ENSMUST00000 030417.9	Cdc42	ENSMUSG00 000006699	cell division cycle 42 Source MGI Symbol Acc MGI 106211
A12	UPFM094816 9	ENSMUST00000 140254.7	Cdk4	ENSMUSG00 000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
B01	UPFM085325 9	ENSMUST00000 153263.7	Cgn	ENSMUSG00 000068876	cingulin Source MGI Symbol Acc MGI 1927237
B02	UPFM090729 6	ENSMUST00000 023154.2	Cldn1	ENSMUSG00 000022512	claudin 1 Source MGI Symbol Acc MGI 1276109
B03	UPFM092500 8	ENSMUST00000 100314.3	Cldn10	ENSMUSG00 000022132	claudin 10 Source MGI Symbol Acc MGI 1913101
B04	UPFM094614 8	ENSMUST00000 046174.7	Cldn11	ENSMUSG00 000037625	claudin 11 Source MGI Symbol Acc MGI 106925
B05	UPFM083190 0	ENSMUST00000 125110.1	Cldn12	ENSMUSG00 000046798	claudin 12 Source MGI Symbol Acc MGI 1929288
B06	UPFM081976 2	ENSMUST00000 137163.1	Cldn14	ENSMUSG00 000047109	claudin 14 Source MGI Symbol Acc MGI 1860425
B07	UPFM062683 4	ENSMUST00000 128391.1	Cldn15	ENSMUSG00 000001739	claudin 15 Source MGI Symbol Acc MGI 1913103
B08	UPFM079484 0	ENSMUST00000 161053.7	Cldn16	ENSMUSG00 000038148	claudin 16 Source MGI Symbol Acc MGI 2148742
B09	UPFM080530 9	ENSMUST00000 069549.2	Cldn17	ENSMUSG00 000055811	claudin 17 Source MGI Symbol Acc MGI 2652030
B10	UPFM092197 7	ENSMUST00000 035048.11	Cldn18	ENSMUSG00 000032473	claudin 18 Source MGI Symbol Acc MGI 1929209
B11	UPFM095136 0	ENSMUST00000 084309.11	Cldn19	ENSMUSG00 000066058	claudin 19 Source MGI Symbol Acc MGI 3033992
B12	UPFM099981 3	ENSMUST00000 172779.1	Cldn2	ENSMUSG00 000047230	claudin 2 Source MGI Symbol Acc MGI 1276110
C01	UPFM078128 9	ENSMUST00000 094245.3	Cldn3	ENSMUSG00 000070473	claudin 3 Source MGI Symbol Acc MGI 1329044
C02	UPFM083061 6	ENSMUST00000 051401.3	Cldn4	ENSMUSG00 000047501	claudin 4 Source MGI Symbol Acc MGI 1313314
C03	UPFM085689 8	ENSMUST00000 043577.2	Cldn5	ENSMUSG00 000041378	claudin 5 Source MGI Symbol Acc MGI 1276112
C04	UPFM092561 9	ENSMUST00000 233364.1	Cldn6	ENSMUSG00 000023906	claudin 6 Source MGI Symbol Acc MGI 1859284
C05	UPFM098941 4	ENSMUST00000 108597.7	Cldn7	ENSMUSG00 000018569	claudin 7 Source MGI Symbol Acc MGI 1859285
C06	UPFM066196 1	ENSMUST00000 049697.4	Cldn8	ENSMUSG00 000050520	claudin 8 Source MGI Symbol Acc MGI 1859286
C07	UPFM085895 6	ENSMUST00000 085989.7	Cldn9	ENSMUSG00 000066720	claudin 9 Source MGI Symbol Acc MGI 1913100
C08	UPFM083952 1	ENSMUST00000 198445.4	Crb1	ENSMUSG00 000063681	crumbs family member 1, photoreceptor morphogenesis associated Source MGI Symbol Acc MGI 2136343
C09	UPFM077014 7	ENSMUST00000 071826.9	Crb3	ENSMUSG00 000044279	crumbs family member 3 Source MGI Symbol Acc MGI 2670904
C10	UPFM064861 6	ENSMUST00000 032309.12	Ybx3	ENSMUSG00 000030189	Y box protein 3 Source MGI Symbol Acc MGI 2137670
	UPFM093398	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	7	136063.1	Csnk2a1	000074698	casein kinase 2, alpha 1 polypeptide Source MGI Symbol Acc MGI 88543
C12	UPFM1009685	ENSMUST00000212615.1	Csnk2a2	ENSMUSG0000046707	casein kinase 2, alpha prime polypeptide Source MGI Symbol Acc MGI 88547
D01	UPFM0786600	ENSMUST00000025246.12	Csnk2b	ENSMUSG00000024387	casein kinase 2, beta polypeptide Source MGI Symbol Acc MGI 88548
D02	UPFM0636613	ENSMUST00000238145.1	Ctnna1	ENSMUSG00000037815	catenin (cadherin associated protein), alpha 1 Source MGI Symbol Acc MGI 88274
D03	UPFM0688977	ENSMUST00000162991.1	Ctnna2	ENSMUSG00000063063	catenin (cadherin associated protein), alpha 2 Source MGI Symbol Acc MGI 88275
D04	UPFM0950278	ENSMUST00000105441.7	Ctnna3	ENSMUSG00000060843	catenin (cadherin associated protein), alpha 3 Source MGI Symbol Acc MGI 2661445
D05	UPFM0985863	ENSMUST00000154356.7	Ctnnb1	ENSMUSG0000006932	catenin (cadherin associated protein), beta 1 Source MGI Symbol Acc MGI 88276
D06	UPFM0644825	ENSMUST00000126018.1	Ctn	ENSMUSG00000031078	cortactin Source MGI Symbol Acc MGI 99695
D07	UPFM0706966	ENSMUST00000212761.1	Epb41	ENSMUSG0000028906	erythrocyte membrane protein band 4.1 Source MGI Symbol Acc MGI 95401
D08	UPFM0882606	ENSMUST00000146860.7	Esam	ENSMUSG00000001946	endothelial cell-specific adhesion molecule Source MGI Symbol Acc MGI 1916774
D09	UPFM0881583	ENSMUST00000043839.4	F11r	ENSMUSG00000038235	F11 receptor Source MGI Symbol Acc MGI 1321398
D10	UPFM0835191	ENSMUST00000074694.6	Gnai1	ENSMUSG00000057614	guanine nucleotide binding protein (G protein), alpha inhibiting 1 Source MGI Symbol Acc MGI 95771
D11	UPFM0821415	ENSMUST00000023531.14	Hcls1	ENSMUSG00000022831	hematopoietic cell specific Lyn substrate 1 Source MGI Symbol Acc MGI 104568
D12	UPFM0843264	ENSMUST00000215003.1	Icam1	ENSMUSG00000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
E01	UPFM0647953	ENSMUST00000173795.1	Icam2	ENSMUSG00000001029	intercellular adhesion molecule 2 Source MGI Symbol Acc MGI 96394
E02	UPFM0740951	ENSMUST00000139595.1	Igsf5	ENSMUSG00000000159	immunoglobulin superfamily, member 5 Source MGI Symbol Acc MGI 1919308
E03	UPFM0739678	ENSMUST00000149695.7	Ilk	ENSMUSG00000030890	integrin linked kinase Source MGI Symbol Acc MGI 1195267
E04	UPFM0978128	ENSMUST00000107033.7	Patj	ENSMUSG00000061859	PATJ, crumbs cell polarity complex component Source MGI Symbol Acc MGI 1277960
E05	UPFM0983386	ENSMUST00000098407.2	Jam2	ENSMUSG00000053062	junction adhesion molecule 2 Source MGI Symbol Acc MGI 1933820
E06	UPFM0654632	ENSMUST00000215446.1	Jam3	ENSMUSG00000031990	junction adhesion molecule 3 Source MGI Symbol Acc MGI 1933825
E07	UPFM0794010	ENSMUST00000052346.9	Llg1	ENSMUSG00000020536	LLGL1 scribble cell polarity complex component Source MGI Symbol Acc MGI 102682
E08	UPFM0660018	ENSMUST00000133250.7	Llg2	ENSMUSG00000020782	LLGL2 scribble cell polarity complex component Source MGI Symbol Acc MGI 1918843
E09	UPFM0935024	ENSMUST00000204167.1	Magi1	ENSMUSG00000045095	membrane associated guanylate kinase, WW and PDZ domain containing 1 Source MGI Symbol Acc MGI 1203522
E10	UPFM0993386	ENSMUST00000064371.13	Magi3	ENSMUSG00000052539	membrane associated guanylate kinase, WW and PDZ domain containing 3 Source MGI Symbol Acc MGI 1923484
E11	UPFM0924648	ENSMUST00000171393.7	Mark2	ENSMUSG00000024969	MAP/microtubule affinity regulating kinase 2 Source MGI Symbol Acc MGI 99638
E12	UPFM0903135	ENSMUST00000150848.7	Afdn	ENSMUSG00000068036	afadin, adherens junction formation factor Source MGI Symbol Acc MGI 1314653
F01	UPFM0719647	ENSMUST00000134726.7	Mpdz	ENSMUSG00000028402	multiple PDZ domain protein Source MGI Symbol Acc MGI 1343489
F02	UPFM0850577	ENSMUST00000082024.6	Mpp5	ENSMUSG00000021112	membrane protein, palmitoylated 5 (MAGUK p55 subfamily member 5) Source MGI Symbol Acc MGI 1927339
F03	UPFM0705582	ENSMUST00000167063.1	Mpp6	ENSMUSG00000038388	membrane protein, palmitoylated 6 (MAGUK p55 subfamily member 6) Source MGI Symbol Acc MGI 1927340
F04	UPFM0874861	ENSMUST00000069756.10	Ocln	ENSMUSG00000021638	occludin Source MGI Symbol Acc MGI 106183
F05	UPFM0793415	ENSMUST00000162309.7	Pard3	ENSMUSG00000025812	par-3 family cell polarity regulator Source MGI Symbol Acc MGI 2135608
F06	UPFM0626211	ENSMUST00000211888.1	Pard6a	ENSMUSG00000005699	par-6 family cell polarity regulator alpha Source MGI Symbol Acc MGI 1927223
F07	UPFM0732046	ENSMUST00000052125.6	Pard6b	ENSMUSG00000044641	par-6 family cell polarity regulator beta Source MGI Symbol Acc MGI 2135605
F08	UPFM0950376	ENSMUST00000068021.8	Pecam1	ENSMUSG00000020717	platelet/endothelial cell adhesion molecule 1 Source MGI Symbol Acc MGI 97537
F09	UPFM0685494	ENSMUST00000130238.1	Prkci	ENSMUSG00000037643	protein kinase C, iota Source MGI Symbol Acc MGI 99260
F10	UPFM0809606	ENSMUST00000105624.1	Prkcz	ENSMUSG00000029053	protein kinase C, zeta Source MGI Symbol Acc MGI 97602

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM0897426	ENSMUST00000013807.7	Pten	ENSMUSG0000013663	phosphatase and tensin homolog Source MGI Symbol Acc MGI 109583
F12	UPFM0962419	ENSMUST00000131513.1	Rac1	ENSMUSG0000001847	Rac family small GTPase 1 Source MGI Symbol Acc MGI 97845
G01	UPFM0809261	ENSMUST00000007959.13	Rhoa	ENSMUSG0000007815	ras homolog family member A Source MGI Symbol Acc MGI 1096342
G02	UPFM0923052	ENSMUST00000198621.1	Smurf1	ENSMUSG0000038780	SMAD specific E3 ubiquitin protein ligase 1 Source MGI Symbol Acc MGI 1923038
G03	UPFM0919962	ENSMUST00000027817.7	Spta1	ENSMUSG0000026532	spectrin alpha, erythrocytic 1 Source MGI Symbol Acc MGI 98385
G04	UPFM0979933	ENSMUST00000131827.2	Sptan1	ENSMUSG0000057738	spectrin alpha, non-erythrocytic 1 Source MGI Symbol Acc MGI 98386
G05	UPFM0929588	ENSMUST00000021458.12	Sptb	ENSMUSG0000021061	spectrin beta, erythrocytic Source MGI Symbol Acc MGI 98387
G06	UPFM1001980	ENSMUST00000131230.1	Sympk	ENSMUSG0000023118	sympleskin Source MGI Symbol Acc MGI 1915438
G07	UPFM0971475	ENSMUST00000130951.7	Tiam1	ENSMUSG0000002489	T cell lymphoma invasion and metastasis 1 Source MGI Symbol Acc MGI 103306
G08	UPFM0687688	ENSMUST00000012440.13	Tjap1	ENSMUSG0000012296	tight junction associated protein 1 Source MGI Symbol Acc MGI 1921344
G09	UPFM0728422	ENSMUST00000102592.9	Tjp1	ENSMUSG0000030516	tight junction protein 1 Source MGI Symbol Acc MGI 98759
G10	UPFM0801382	ENSMUST00000233658.2	Tjp2	ENSMUSG0000024812	tight junction protein 2 Source MGI Symbol Acc MGI 1341872
G11	UPFM0774656	ENSMUST00000045744.6	Tjp3	ENSMUSG0000034917	tight junction protein 3 Source MGI Symbol Acc MGI 1351650
G12	UPFM0858612	ENSMUST00000024897.9	Vapa	ENSMUSG0000024091	vesicle-associated membrane protein, associated protein A Source MGI Symbol Acc MGI 1353561
H01	UPFM1132946	ENSMUST00000163829.1	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM1132947	ENSMUST00000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM1132948	ENSMUST00000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM1132949	ENSMUST00000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM1132950	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG0000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM1126609	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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