

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

## Mouse Epigenetic Chromatin Remodeling Factors

Cat. no. 249955 UPMM-086ZR

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
<b>A</b>	Arid1a	Arid2	Asx1	Baz1a	Baz1b	Baz2a	Baz2b	Bmi1	Bpff	Brd1	Brd2	Brd3
<b>B</b>	Brd4	Brd7	Brd8	Brdt	Brpf1	Brpf3	Brwd1	Brwd3	Cbx1	Cbx2	Cbx3	Cbx4
<b>C</b>	Cbx5	Cbx6	Cbx7	Cbx8	Cdyl	Cdyl2	Chd1	Chd2	Chd3	Chd4	Chd5	Chd6
<b>D</b>	Chd7	Chd8	Chd9	Ctbp1	Ctbp2	Ctcf	Eed	Ezh2	Hinfp	Ing1	Ing2	Ing3
<b>E</b>	Ing4	Ing5	Ino80	Mbd1	Mbd3	Mbd4	Mecp2	Mta1	Mta2	Nab2	Nsd1	Pcgf1
<b>F</b>	Pcgf2	Pcgf3	Pcgf5	Pcgf6	Phc1	Phc2	Phf1	Phf13	Phf2	Phf21b	Phf3	Phf5a
<b>G</b>	Phf6	Phf7	Ring1	Rnf2	Smarca2	Smarca4	Smarca5	Spen	Suz12	Trim27	Wdr11	Zmynd8
<b>H</b>	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	UPFM078345 9	ENSMUST00000 139709.2	Arid1a	ENSMUSG00 000007880	AT rich interactive domain 1A (SWI-like) Source MGI Symbol Acc MGI 1935147
A02	UPFM087180 2	ENSMUST00000 096250.4	Arid2	ENSMUSG00 000033237	AT rich interactive domain 2 (ARID, RFX-like) Source MGI Symbol Acc MGI 1924294
A03	UPFM075300 0	ENSMUST00000 144722.1	Asx1	ENSMUSG00 000042548	additional sex combs like 1 Source MGI Symbol Acc MGI 2684063
A04	UPFM078503 4	ENSMUST00000 172875.7	Baz1a	ENSMUSG00 000035021	bromodomain adjacent to zinc finger domain 1A Source MGI Symbol Acc MGI 1309478
A05	UPFM070443 5	ENSMUST00000 176793.1	Baz1b	ENSMUSG00 000002748	bromodomain adjacent to zinc finger domain, 1B Source MGI Symbol Acc MGI 1353499
A06	UPFM097453 9	ENSMUST00000 170054.8	Baz2a	ENSMUSG00 000040054	bromodomain adjacent to zinc finger domain, 2A Source MGI Symbol Acc MGI 2151152
A07	UPFM068647 8	ENSMUST00000 112550.7	Baz2b	ENSMUSG00 000026987	bromodomain adjacent to zinc finger domain, 2B Source MGI Symbol Acc MGI 2442782
A08	UPFM079385 6	ENSMUST00000 051929.12	Bmi1	ENSMUSG00 000026739	Bmi1 polycomb ring finger oncogene Source MGI Symbol Acc MGI 88174
A09	UPFM070955 0	ENSMUST00000 138443.1	Bpif	ENSMUSG00 000040481	bromodomain PHD finger transcription factor Source MGI Symbol Acc MGI 2444008
A10	UPFM080881 4	ENSMUST00000 139515.1	Brd1	ENSMUSG00 000022387	bromodomain containing 1 Source MGI Symbol Acc MGI 1924161
A11	UPFM072260 9	ENSMUST00000 142570.1	Brd2	ENSMUSG00 000024335	bromodomain containing 2 Source MGI Symbol Acc MGI 99495
A12	UPFM069727 0	ENSMUST00000 164296.7	Brd3	ENSMUSG00 000026918	bromodomain containing 3 Source MGI Symbol Acc MGI 1914632
B01	UPFM112624 1	ENSMUST00000 237692.1	Brd4	ENSMUSG00 000024002	bromodomain containing 4 Source MGI Symbol Acc MGI 1888520
B02	UPFM067207 6	ENSMUST00000 139675.7	Brd7	ENSMUSG00 000031660	bromodomain containing 7 Source MGI Symbol Acc MGI 1349766
B03	UPFM077673 8	ENSMUST00000 152612.7	Brd8	ENSMUSG00 000003778	bromodomain containing 8 Source MGI Symbol Acc MGI 1925906
B04	UPFM073460 8	ENSMUST00000 112677.9	Brdt	ENSMUSG00 000029279	bromodomain, testis-specific Source MGI Symbol Acc MGI 1891374
B05	UPFM098938 1	ENSMUST00000 113117.3	Brpf1	ENSMUSG00 000001632	bromodomain and PHD finger containing, 1 Source MGI Symbol Acc MGI 1926033
B06	UPFM098079 4	ENSMUST00000 140587.8	Brpf3	ENSMUSG00 000063952	bromodomain and PHD finger containing, 3 Source MGI Symbol Acc MGI 2146836
B07	UPFM075863 7	ENSMUST00000 099502.8	Brwd1	ENSMUSG00 000022914	bromodomain and WD repeat domain containing 1 Source MGI Symbol Acc MGI 1890651
B08	UPFM086410 1	ENSMUST00000 144521.7	Brwd3	ENSMUSG00 000063663	bromodomain and WD repeat domain containing 3 Source MGI Symbol Acc MGI 3029414
B09	UPFM085882 0	ENSMUST00000 093943.9	Cbx1	ENSMUSG00 000018666	chromobox 1 Source MGI Symbol Acc MGI 105369
B10	UPFM074631 6	ENSMUST00000 139746.1	Cbx2	ENSMUSG00 000025577	chromobox 2 Source MGI Symbol Acc MGI 88289
B11	UPFM087539 0	ENSMUST00000 141711.2	Cbx3	ENSMUSG00 000029836	chromobox 3 Source MGI Symbol Acc MGI 108515
B12	UPFM067429 8	ENSMUST00000 145058.1	Cbx4	ENSMUSG00 000039989	chromobox 4 Source MGI Symbol Acc MGI 1195985
C01	UPFM085871 9	ENSMUST00000 122182.1	Cbx5	ENSMUSG00 000009575	chromobox 5 Source MGI Symbol Acc MGI 109372
C02	UPFM097223 0	ENSMUST00000 127721.7	Cbx6	ENSMUSG00 000089715	chromobox 6 Source MGI Symbol Acc MGI 3512628
C03	UPFM093141 6	ENSMUST00000 177044.1	Cbx7	ENSMUSG00 000053411	chromobox 7 Source MGI Symbol Acc MGI 1196439
C04	UPFM094149 7	ENSMUST00000 143831.1	Cbx8	ENSMUSG00 000025578	chromobox 8 Source MGI Symbol Acc MGI 1353589
C05	UPFM081082 4	ENSMUST00000 075220.13	Cdyl	ENSMUSG00 000059288	chromodomain protein, Y chromosome-like Source MGI Symbol Acc MGI 1339956
C06	UPFM068353 4	ENSMUST00000 109102.3	Cdyl2	ENSMUSG00 000031758	chromodomain protein, Y chromosome-like 2 Source MGI Symbol Acc MGI 1923046
C07	UPFM091870 3	ENSMUST00000 173311.7	Chd1	ENSMUSG00 000023852	chromodomain helicase DNA binding protein 1 Source MGI Symbol Acc MGI 88393
C08	UPFM090129 6	ENSMUST00000 026895.13	Chd2	ENSMUSG00 000078671	chromodomain helicase DNA binding protein 2 Source MGI Symbol Acc MGI 2448567
C09	UPFM084937 8	ENSMUST00000 108661.7	Chd3	ENSMUSG00 000018474	chromodomain helicase DNA binding protein 3 Source MGI Symbol Acc MGI 1344395
C10	UPFM070181 3	ENSMUST00000 112392.7	Chd4	ENSMUSG00 000063870	chromodomain helicase DNA binding protein 4 Source MGI Symbol Acc MGI 1344380
	UPFM091939	ENSMUST00000		ENSMUSG00	chromodomain helicase DNA binding protein 5 Source MGI Symbol Acc MGI

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	8	124423.1	Chd5	000005045	3036258
C12	UPFM082779 9	ENSMUST00000 149866.1	Chd6	ENSMUSG00 000057133	chromodomain helicase DNA binding protein 6 Source MGI Symbol Acc MGI 1918639
D01	UPFM083714 1	ENSMUST00000 039267.9	Chd7	ENSMUSG00 000041235	chromodomain helicase DNA binding protein 7 Source MGI Symbol Acc MGI 2444748
D02	UPFM094470 9	ENSMUST00000 149694.1	Chd8	ENSMUSG00 000053754	chromodomain helicase DNA binding protein 8 Source MGI Symbol Acc MGI 1915022
D03	UPFM089335 0	ENSMUST00000 210947.1	Chd9	ENSMUSG00 000056608	chromodomain helicase DNA binding protein 9 Source MGI Symbol Acc MGI 1924001
D04	UPFM061874 7	ENSMUST00000 201372.2	Ctbp1	ENSMUSG00 000037373	C-terminal binding protein 1 Source MGI Symbol Acc MGI 1201685
D05	UPFM063172 1	ENSMUST00000 172341.7	Ctbp2	ENSMUSG00 000030970	C-terminal binding protein 2 Source MGI Symbol Acc MGI 1201686
D06	UPFM064201 6	ENSMUST00000 129388.1	Ctcf	ENSMUSG00 000005698	CCCTC-binding factor Source MGI Symbol Acc MGI 109447
D07	UPFM083656 7	ENSMUST00000 107234.2	Eed	ENSMUSG00 000030619	embryonic ectoderm development Source MGI Symbol Acc MGI 95286
D08	UPFM062564 7	ENSMUST00000 114618.7	Ezh2	ENSMUSG00 000029687	enhancer of zeste 2 polycomb repressive complex 2 subunit Source MGI Symbol Acc MGI 107940
D09	UPFM070332 1	ENSMUST00000 034629.5	Hinfp	ENSMUSG00 000032119	histone H4 transcription factor Source MGI Symbol Acc MGI 2429620
D10	UPFM076481 3	ENSMUST00000 209646.1	Ing1	ENSMUSG00 000045969	inhibitor of growth family, member 1 Source MGI Symbol Acc MGI 1349481
D11	UPFM075030 5	ENSMUST00000 125536.1	Ing2	ENSMUSG00 000063049	inhibitor of growth family, member 2 Source MGI Symbol Acc MGI 1916510
D12	UPFM084678 6	ENSMUST00000 151473.7	Ing3	ENSMUSG00 000029670	inhibitor of growth family, member 3 Source MGI Symbol Acc MGI 1919027
E01	UPFM075901 9	ENSMUST00000 152574.7	Ing4	ENSMUSG00 000030330	inhibitor of growth family, member 4 Source MGI Symbol Acc MGI 107307
E02	UPFM090056 6	ENSMUST00000 027505.12	Ing5	ENSMUSG00 000026283	inhibitor of growth family, member 5 Source MGI Symbol Acc MGI 1922816
E03	UPFM095854 4	ENSMUST00000 138707.1	Ino80	ENSMUSG00 000034154	INO80 complex subunit Source MGI Symbol Acc MGI 1915392
E04	UPFM083711 4	ENSMUST00000 224047.1	Mbd1	ENSMUSG00 000024561	methyl-CpG binding domain protein 1 Source MGI Symbol Acc MGI 1333811
E05	UPFM065633 3	ENSMUST00000 105349.7	Mbd3	ENSMUSG00 000035478	methyl-CpG binding domain protein 3 Source MGI Symbol Acc MGI 1333812
E06	UPFM063500 8	ENSMUST00000 203643.1	Mbd4	ENSMUSG00 000030322	methyl-CpG binding domain protein 4 Source MGI Symbol Acc MGI 1333850
E07	UPFM061884 4	ENSMUST00000 123362.7	Mecp2	ENSMUSG00 000031393	methyl CpG binding protein 2 Source MGI Symbol Acc MGI 99918
E08	UPFM082245 6	ENSMUST00000 109726.7	Mta1	ENSMUSG00 000021144	metastasis associated 1 Source MGI Symbol Acc MGI 2150037
E09	UPFM077479 7	ENSMUST00000 132463.7	Mta2	ENSMUSG00 000071646	metastasis-associated gene family, member 2 Source MGI Symbol Acc MGI 1346340
E10	UPFM097056 7	ENSMUST00000 129252.1	Nab2	ENSMUSG00 000025402	Ngfi-A binding protein 2 Source MGI Symbol Acc MGI 107563
E11	UPFM074007 1	ENSMUST00000 224156.1	Nsd1	ENSMUSG00 000021488	nuclear receptor-binding SET-domain protein 1 Source MGI Symbol Acc MGI 1276545
E12	UPFM076701 7	ENSMUST00000 177177.7	Pcgf1	ENSMUSG00 000069678	polycomb group ring finger 1 Source MGI Symbol Acc MGI 1917087
F01	UPFM080178 2	ENSMUST00000 179765.7	Pcgf2	ENSMUSG00 000018537	polycomb group ring finger 2 Source MGI Symbol Acc MGI 99161
F02	UPFM095684 8	ENSMUST00000 112597.7	Pcgf3	ENSMUSG00 000033623	polycomb group ring finger 3 Source MGI Symbol Acc MGI 1916837
F03	UPFM066534 9	ENSMUST00000 225920.1	Pcgf5	ENSMUSG00 000024805	polycomb group ring finger 5 Source MGI Symbol Acc MGI 1923505
F04	UPFM082074 1	ENSMUST00000 026032.6	Pcgf6	ENSMUSG00 000025050	polycomb group ring finger 6 Source MGI Symbol Acc MGI 1918291
F05	UPFM066508 9	ENSMUST00000 159384.7	Phc1	ENSMUSG00 000040669	polyhomeotic 1 Source MGI Symbol Acc MGI 103248
F06	UPFM085447 0	ENSMUST00000 138445.1	Phc2	ENSMUSG00 000028796	polyhomeotic 2 Source MGI Symbol Acc MGI 1860454
F07	UPFM073775 8	ENSMUST00000 237412.1	Phf1	ENSMUSG00 000024193	PHD finger protein 1 Source MGI Symbol Acc MGI 98647
F08	UPFM098800 7	ENSMUST00000 055688.9	Phf13	ENSMUSG00 000047777	PHD finger protein 13 Source MGI Symbol Acc MGI 2446217
F09	UPFM079158 1	ENSMUST00000 035540.8	Phf2	ENSMUSG00 000038025	PHD finger protein 2 Source MGI Symbol Acc MGI 1338034
F10	UPFM091678 4	ENSMUST00000 016768.11	Phf21b	ENSMUSG00 000016624	PHD finger protein 21B Source MGI Symbol Acc MGI 2443812

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM1012730	ENSMUST00000186105.6	Phf3	ENSMUSG0000048874	PHD finger protein 3 Source MGI Symbol Acc MGI 2446126
F12	UPFM0781018	ENSMUST00000160415.1	Phf5a	ENSMUSG0000061360	PHD finger protein 5A Source MGI Symbol Acc MGI 2156864
G01	UPFM0962216	ENSMUST00000154864.3	Phf6	ENSMUSG0000025626	PHD finger protein 6 Source MGI Symbol Acc MGI 1918248
G02	UPFM0683890	ENSMUST0000022459.4	Phf7	ENSMUSG0000021902	PHD finger protein 7 Source MGI Symbol Acc MGI 1919088
G03	UPFM0836116	ENSMUST0000025183.8	Ring1	ENSMUSG0000024325	ring finger protein 1 Source MGI Symbol Acc MGI 1101770
G04	UPFM0933183	ENSMUST00000186415.6	Rnf2	ENSMUSG0000026484	ring finger protein 2 Source MGI Symbol Acc MGI 1101759
G05	UPFM0814431	ENSMUST00000177252.8	Smarca2	ENSMUSG0000024921	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 Source MGI Symbol Acc MGI 99603
G06	UPFM0784868	ENSMUST00000172996.1	Smarca4	ENSMUSG0000032187	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 Source MGI Symbol Acc MGI 88192
G07	UPFM0984474	ENSMUST00000140110.1	Smarca5	ENSMUSG0000031715	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 5 Source MGI Symbol Acc MGI 1935129
G08	UPFM0816464	ENSMUST00000078886.9	Spen	ENSMUSG0000040761	spen family transcription repressor Source MGI Symbol Acc MGI 1891706
G09	UPFM0744096	ENSMUST00000126091.1	Suz12	ENSMUSG0000017548	SUZ12 polycomb repressive complex 2 subunit Source MGI Symbol Acc MGI 1261758
G10	UPFM0924987	ENSMUST0000021761.12	Trim27	ENSMUSG0000021326	tripartite motif-containing 27 Source MGI Symbol Acc MGI 97904
G11	UPFM0946199	ENSMUST00000143422.7	Wdr11	ENSMUSG0000042055	WD repeat domain 11 Source MGI Symbol Acc MGI 1920230
G12	UPFM0769933	ENSMUST00000136842.1	Zmynd8	ENSMUSG0000039671	zinc finger, MYND-type containing 8 Source MGI Symbol Acc MGI 1918025
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	ENSMUST0000026613.13	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.

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.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.