

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

## Rat Epigenetic Chromatin Remodeling Factors

Cat. no. 249955 UPRN-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
A	Arid1a	Arid1b	Baz1a	Baz1b	Baz2a	Baz2b	Bmi1	Brd1	AC098547.1	Brd3	Brd4	Brd7
B	Brd8	Brdt	Brpf1	Brpf3	Brwd1	Cbx2	Cbx5	Cbx6	Cbx7	Cbx8	Cdy2	Chd1
C	Chd11	Chd2	Chd3	Chd4	Chd6	Chd7	Chd8	Ctbp1	Ctbp2	Ctcf	Dmap1	E2f6
D	Eed	Ezh2	Ing1	Ing2	Ing3	Ing4	Ing5	Mbd1	Mbd2	Mbd3	Mbd4	Mecp2
E	Mta1	Mta2	Nab2	Ncoo6	Nsd1	LOC1036921 67	Pcgf2	Pcgf3	Pcgf6	Phc1	Phc2	Phf1
F	Phf13	Phf2	Phf21b	Phf3	Phf5a	Phf7	Ring1	Rnf2	Sf3b3	Shprh	Smarca2	Smarca4
G	Smarca5	Smarca1	Smarca11	LOC1036948 76	Smarca1	Smarca2	Smarca3	Smarca1	Spen	Trim27	Yy1	Zmynd8
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1028311	ENSRNOT00000009173.7	Arid1a	ENSRNOG0000006137	AT-rich interaction domain 1A Source RGD Symbol Acc 1310500
A02	UPFR1046541	ENSRNOT00000022939.7	Arid1b	ENSRNOG0000017030	AT-rich interaction domain 1B Source RGD Symbol Acc 708504
A03	UPFR1055444	ENSRNOT00000009080.7	Baz1a	ENSRNOG0000006828	bromodomain adjacent to zinc finger domain, 1A Source RGD Symbol Acc 1306199
A04	UPFR1039814	ENSRNOT00000001975.7	Baz1b	ENSRNOG0000001453	bromodomain adjacent to zinc finger domain, 1B Source RGD Symbol Acc 1597089
A05	UPFR1074001	ENSRNOT00000079383.1	Baz2a	ENSRNOG0000053881	bromodomain adjacent to zinc finger domain, 2A Source RGD Symbol Acc 1305037
A06	UPFR1028803	ENSRNOT00000085885.1	Baz2b	ENSRNOG0000056984	bromodomain adjacent to zinc finger domain, 2B Source RGD Symbol Acc 1309801
A07	UPFR1103597	ENSRNOT00000064257.2	Bmi1	ENSRNOG0000016585	BMI1 proto-oncogene, polycomb ring finger Source RGD Symbol Acc 1307403
A08	UPFR1110559	ENSRNOT00000006034.5	Brd1	ENSRNOG0000004538	bromodomain containing 1 Source RGD Symbol Acc 1311855
A09	UPFR1057620	ENSRNOT00000077454.1	AC098547.1	ENSRNOG0000045877	bromodomain-containing protein 2-like Source NCBI gene Acc 100909544
A10	UPFR1018367	ENSRNOT00000084491.1	Brd3	ENSRNOG0000007681	bromodomain containing 3 Source RGD Symbol Acc 1308925
A11	UPFR1100419	ENSRNOT00000091368.1	Brd4	ENSRNOG0000006770	bromodomain containing 4 Source RGD Symbol Acc 1307282
A12	UPFR1052852	ENSRNOT00000064275.2	Brd7	ENSRNOG0000014419	bromodomain containing 7 Source RGD Symbol Acc 1309891
B01	UPFR1120556	ENSRNOT00000087968.1	Brd8	ENSRNOG0000020340	bromodomain containing 8 Source RGD Symbol Acc 1307003
B02	UPFR1120274	ENSRNOT00000080901.1	Brdt	ENSRNOG0000002073	bromodomain, testis-specific Source MGI Symbol Acc MGI 1891374
B03	UPFR1017396	ENSRNOT00000011246.5	Brpf1	ENSRNOG0000008142	bromodomain and PHD finger containing, 1 Source RGD Symbol Acc 1584828
B04	UPFR1016386	ENSRNOT00000092463.1	Brpf3	ENSRNOG0000028641	bromodomain and PHD finger containing, 3 Source RGD Symbol Acc 1306868
B05	UPFR1038321	ENSRNOT00000002231.6	Brwd1	ENSRNOG0000001632	bromodomain and WD repeat domain containing 1 Source RGD Symbol Acc 1309030
B06	UPFR1081051	ENSRNOT00000072534.1	Cbx2	ENSRNOG0000049215	chromobox 2 Source RGD Symbol Acc 1588561
B07	UPFR1013051	ENSRNOT00000089024.1	Cbx5	ENSRNOG0000036841	chromobox 5 Source RGD Symbol Acc 1306619
B08	UPFR1112285	ENSRNOT00000068033.1	Cbx6	ENSRNOG0000046955	chromobox 6 Source RGD Symbol Acc 1307314
B09	UPFR1120167	ENSRNOT00000077731.1	Cbx7	ENSRNOG0000016875	chromobox 7 Source RGD Symbol Acc 735027
B10	UPFR1068548	ENSRNOT00000073337.1	Cbx8	ENSRNOG0000048113	chromobox 8 Source RGD Symbol Acc 1565375
B11	UPFR1102353	ENSRNOT00000068440.3	Cdyl2	ENSRNOG0000042888	chromodomain Y-like 2 Source RGD Symbol Acc 1309548
B12	UPFR1031358	ENSRNOT00000083968.1	Chd1	ENSRNOG0000014434	chromodomain helicase DNA binding protein 1 Source RGD Symbol Acc 1306794
C01	UPFR1021424	ENSRNOT00000043937.5	Chd11	ENSRNOG0000017669	chromodomain helicase DNA binding protein 1-like Source RGD Symbol Acc 1311935
C02	UPFR1088823	ENSRNOT00000055829.3	Chd2	ENSRNOG0000012716	chromodomain helicase DNA binding protein 2 Source RGD Symbol Acc 1310056
C03	UPFR1021272	ENSRNOT00000057058.4	Chd3	ENSRNOG0000009722	chromodomain helicase DNA binding protein 3 Source RGD Symbol Acc 1311923
C04	UPFR1041982	ENSRNOT00000055970.4	Chd4	ENSRNOG0000018309	chromodomain helicase DNA binding protein 4 Source RGD Symbol Acc 620064
C05	UPFR1052335	ENSRNOT00000089958.1	Chd6	ENSRNOG0000016744	chromodomain helicase DNA binding protein 6 Source RGD Symbol Acc 1310465
C06	UPFR1038173	ENSRNOT00000008901.7	Chd7	ENSRNOG0000006689	chromodomain helicase DNA binding protein 7 Source RGD Symbol Acc 1311921
C07	UPFR1050364	ENSRNOT00000022593.6	Chd8	ENSRNOG0000025011	chromodomain helicase DNA binding protein 8 Source RGD Symbol Acc 620696
C08	UPFR1099165	ENSRNOT00000065393.2	Ctbp1	ENSRNOG0000005428	C-terminal binding protein 1 Source RGD Symbol Acc 2441
C09	UPFR1067935	ENSRNOT00000023574.6	Ctbp2	ENSRNOG0000017326	C-terminal binding protein 2 Source RGD Symbol Acc 68372
C10	UPFR1082435	ENSRNOT00000023853.5	Ctcf	ENSRNOG0000017674	CCCTC-binding factor Source RGD Symbol Acc 621344
		ENSRNOT000000		ENSRNOG00	DNA methyltransferase 1-associated protein 1 Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1086732	026336.5	Dmap1	000019407	1311295
C12	UPFR1069531	ENSRNOT00000060499.4	E2f6	ENSRNOG0000004449	E2F transcription factor 6 Source RGD Symbol Acc 631412
D01	UPFR1045450	ENSRNOT00000024082.6	Eed	ENSRNOG0000017509	embryonic ectoderm development Source RGD Symbol Acc 1309782
D02	UPFR1017868	ENSRNOT00000008149.5	Ezh2	ENSRNOG0000006048	enhancer of zeste 2 polycomb repressive complex 2 subunit Source RGD Symbol Acc 1595860
D03	UPFR1028569	ENSRNOT00000019454.7	Ing1	ENSRNOG0000014520	inhibitor of growth family, member 1 Source RGD Symbol Acc 1306330
D04	UPFR1117387	ENSRNOT00000018689.5	Ing2	ENSRNOG0000013480	inhibitor of growth family, member 2 Source RGD Symbol Acc 1307347
D05	UPFR1051547	ENSRNOT00000007476.5	Ing3	ENSRNOG0000005496	inhibitor of growth family, member 3 Source RGD Symbol Acc 1310556
D06	UPFR1074548	ENSRNOT00000024116.6	Ing4	ENSRNOG0000023363	inhibitor of growth family, member 4 Source RGD Symbol Acc 1309407
D07	UPFR1108223	ENSRNOT00000065058.3	Ing5	ENSRNOG0000018988	inhibitor of growth family, member 5 Source RGD Symbol Acc 1307908
D08	UPFR1036358	ENSRNOT00000032202.4	Mbd1	ENSRNOG0000024104	methyl-CpG binding domain protein 1 Source RGD Symbol Acc 1305980
D09	UPFR1061597	ENSRNOT00000016112.7	Mbd2	ENSRNOG0000011853	methyl-CpG binding domain protein 2 Source RGD Symbol Acc 1595452
D10	UPFR1044642	ENSRNOT00000049170.5	Mbd3	ENSRNOG0000028956	methyl-CpG binding domain protein 3 Source RGD Symbol Acc 1307389
D11	UPFR1052576	ENSRNOT00000014537.7	Mbd4	ENSRNOG0000010919	methyl-CpG binding domain 4 DNA glycosylase Source RGD Symbol Acc 1585874
D12	UPFR1061981	ENSRNOT00000085723.1	Mecp2	ENSRNOG0000056659	methyl CpG binding protein 2 Source RGD Symbol Acc 3075
E01	UPFR1100782	ENSRNOT00000046456.3	Mta1	ENSRNOG0000004711	metastasis associated 1 Source RGD Symbol Acc 621018
E02	UPFR1049843	ENSRNOT00000027141.5	Mta2	ENSRNOG0000019913	metastasis associated 1 family, member 2 Source RGD Symbol Acc 1306743
E03	UPFR1024113	ENSRNOT00000057745.3	Nab2	ENSRNOG0000008415	Ngfi-A binding protein 2 Source RGD Symbol Acc 1311712
E04	UPFR1103463	ENSRNOT00000024714.7	Ncoa6	ENSRNOG0000018288	nuclear receptor coactivator 6 Source RGD Symbol Acc 620111
E05	UPFR1121879	ENSRNOT00000060928.2	Nsd1	ENSRNOG0000016680	nuclear receptor binding SET domain protein 1 Source RGD Symbol Acc 1307748
E06	UPFR1080858	ENSRNOT00000011173.6	LOC103692167	ENSRNOG0000008360	polycomb group ring finger 1 Source RGD Symbol Acc 1549782
E07	UPFR1105432	ENSRNOT00000017241.5	Pcgf2	ENSRNOG0000012705	polycomb group ring finger 2 Source RGD Symbol Acc 1305097
E08	UPFR1076613	ENSRNOT00000000071.4	Pcgf3	ENSRNOG0000000062	polycomb group ring finger 3 Source RGD Symbol Acc 1311479
E09	UPFR1072047	ENSRNOT00000027450.4	Pcgf6	ENSRNOG0000020250	polycomb group ring finger 6 Source RGD Symbol Acc 1306904
E10	UPFR1020259	ENSRNOT00000020529.5	Phc1	ENSRNOG0000015191	polyhomeotic homolog 1 Source RGD Symbol Acc 1309203
E11	UPFR1036655	ENSRNOT00000067912.1	Phc2	ENSRNOG0000006004	polyhomeotic homolog 2 Source RGD Symbol Acc 1307912
E12	UPFR1052045	ENSRNOT00000091364.1	Phf1	ENSRNOG0000000480	PHD finger protein 1 Source RGD Symbol Acc 1303205
F01	UPFR1030452	ENSRNOT00000012407.5	Phf13	ENSRNOG0000009046	PHD finger protein 13 Source RGD Symbol Acc 1308145
F02	UPFR1119984	ENSRNOT00000022669.6	Phf2	ENSRNOG0000016816	PHD finger protein 2 Source RGD Symbol Acc 1305228
F03	UPFR1071354	ENSRNOT00000017906.6	Phf21b	ENSRNOG0000013067	PHD finger protein 21B Source RGD Symbol Acc 1308739
F04	UPFR1046838	ENSRNOT00000015638.5	Phf3	ENSRNOG0000011756	PHD finger protein 3 Source RGD Symbol Acc 1304925
F05	UPFR1119190	ENSRNOT00000090984.1	Phf5a	ENSRNOG0000024170	PHD finger protein 5A Source RGD Symbol Acc 621555
F06	UPFR1033949	ENSRNOT00000044991.4	Phf7	ENSRNOG0000018996	PHD finger protein 7 Source RGD Symbol Acc 1308638
F07	UPFR1030998	ENSRNOT00000081085.1	Ring1	ENSRNOG0000000467	ring finger protein 1 Source RGD Symbol Acc 3576
F08	UPFR1055293	ENSRNOT00000092053.1	Rnf2	ENSRNOG0000002454	ring finger protein 2 Source RGD Symbol Acc 1305491
F09	UPFR1105965	ENSRNOT00000023854.6	Sf3b3	ENSRNOG0000017724	splicing factor 3b, subunit 3 Source RGD Symbol Acc 1311636
F10	UPFR1092677	ENSRNOT00000019893.6	Shprh	ENSRNOG0000014450	SNF2 histone linker PHD RING helicase Source RGD Symbol Acc 1310342

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1107015	ENSRNOT00000080124.1	Smarca2	ENSRNOG0000011931	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 Source RGD Symbol Acc 1302988
F12	UPFR1030965	ENSRNOT00000013165.6	Smarca4	ENSRNOG0000009271	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 Source RGD Symbol Acc 621728
G01	UPFR1023952	ENSRNOT00000024568.5	Smarca5	ENSRNOG0000018149	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 5 Source RGD Symbol Acc 1308832
G02	UPFR1077455	ENSRNOT00000008585.3	Smarcad1	ENSRNOG0000006391	SWI/SNF-related, matrix-associated actin-dependent regulator of chromatin, subfamily a, containing DEAD/H box 1` Source RGD Symbol Acc 1309640
G03	UPFR1020907	ENSRNOT00000071856.3	Smarcal1	ENSRNOG0000016503	Swi/SNF related matrix associated, actin dependent regulator of chromatin, subfamily a-like 1 Source RGD Symbol Acc 1306134
G04	UPFR1042902	ENSRNOT00000029458.6	LOC103694876	ENSRNOG0000028302	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily b, member 1 Source RGD Symbol Acc 1308761
G05	UPFR1110716	ENSRNOT00000081195.1	Smarcd1	ENSRNOG0000061572	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 1 Source RGD Symbol Acc 1305406
G06	UPFR1086450	ENSRNOT00000014508.3	Smarcd2	ENSRNOG0000010557	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 2 Source RGD Symbol Acc 69289
G07	UPFR1100858	ENSRNOT00000066598.2	Smarcd3	ENSRNOG0000010077	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3 Source RGD Symbol Acc 1311869
G08	UPFR1042718	ENSRNOT00000080617.1	Smarce1	ENSRNOG0000010676	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 Source RGD Symbol Acc 1304726
G09	UPFR1103041	ENSRNOT00000067517.3	Spen	ENSRNOG0000033556	spen family transcriptional repressor Source RGD Symbol Acc 1589867
G10	UPFR1016877	ENSRNOT00000077363.1	Trim27	ENSRNOG0000055917	tripartite motif-containing 27 Source RGD Symbol Acc 1310105
G11	UPFR1036791	ENSRNOT00000005743.3	Yy1	ENSRNOG0000004339	YY1 transcription factor Source RGD Symbol Acc 3982
G12	UPFR1066830	ENSRNOT00000068328.2	Zmynd8	ENSRNOG0000019154	zinc finger, MYND-type containing 8 Source RGD Symbol Acc 1309544
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat 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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