

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

## Rat Epigenetic Chromatin Modification Enzymes

Cat. no. 249955 UPRN-085ZR

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>	Kdm1b	Ash1l	Ash2l	Aif2	Aurka	Aurkb	Aurkc	Baz1b	Bra2	Cdk2	Ctla	Crebbp
<b>B</b>	Cxcl1	Dnmt1	Dnmt3a	Dnmt3b	Daf1l	Edf1	Eed	Ehmt1	Ehmt2	AABR0705853 9.1	Epc1	Ezh2
<b>C</b>	Fbxo11	Hat1	Hdac1	Hdac10	Hdac11	Hdac2	Hdac3	Hdac4	Hdac5	Hdac6	Hdac7	Hdac8
<b>D</b>	Hdac9	Ing3	Jmjd6	Kat2a	Kat5	Mbd2	Med24	Men1	Kmt2a	Kmt2e	Mta2	Kat8
<b>E</b>	Kat7	Kat6a	Ncoa3	Ncoa6	Ncor1	Nek6	Nsd1	Pak1	Prdm2	Prdm9	Prmt1	Prmt2
<b>F</b>	Prmt5	LOC1083481 73	Prmt7	Rbbp5	Rnf2	Rnf20	Rnf40	Rps6ka5	Setd4	Setd5	Setd6	Setdb2
<b>G</b>	AABR0704492 5.1	Sirt2	Smyd1	Smyd2	Supt7l	Suv39h1l1	Suv39h2	Kmt5b	Kmt5c	Ube2a	LOC1036949 02	Usp16
<b>H</b>	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	UPFR1061373	ENSRNOT00000022244.3	Kdm1b	ENSRNOG0000016519	lysine demethylase 1B Source RGD Symbol Acc 1310701
A02	UPFR1088433	ENSRNOT00000085690.1	Ash1l	ENSRNOG0000020386	ASH1 like histone lysine methyltransferase Source RGD Symbol Acc 1306350
A03	UPFR1013365	ENSRNOT00000020181.7	Ash2l	ENSRNOG0000014875	ASH2 like histone lysine methyltransferase complex subunit Source RGD Symbol Acc 1305632
A04	UPFR1067157	ENSRNOT00000002174.7	Ahf2	ENSRNOG0000001597	activating transcription factor 2 Source RGD Symbol Acc 621862
A05	UPFR1017973	ENSRNOT00000055102.4	Aurka	ENSRNOG0000004479	aurora kinase A Source RGD Symbol Acc 628895
A06	UPFR1038690	ENSRNOT00000091016.1	Aurkb	ENSRNOG0000005659	aurora kinase B Source RGD Symbol Acc 621625
A07	UPFR1066309	ENSRNOT00000021245.7	Aurkc	ENSRNOG0000015825	aurora kinase C Source RGD Symbol Acc 1309573
A08	UPFR1039814	ENSRNOT00000001975.7	Baz1b	ENSRNOG0000001453	bromodomain adjacent to zinc finger domain, 1B Source RGD Symbol Acc 1597089
A09	UPFR1085218	ENSRNOT00000001475.7	Brc2	ENSRNOG0000001111	BRCA2, DNA repair associated Source RGD Symbol Acc 2219
A10	UPFR1076908	ENSRNOT00000031963.3	Cdk2	ENSRNOG0000006469	cyclin dependent kinase 2 Source RGD Symbol Acc 70486
A11	UPFR1117820	ENSRNOT00000085479.1	Ciita	ENSRNOG0000002659	class II, major histocompatibility complex, transactivator Source RGD Symbol Acc 619813
A12	UPFR1058705	ENSRNOT00000007079.5	Crebbp	ENSRNOG0000005330	CREB binding protein Source RGD Symbol Acc 2401
B01	UPFR1078963	ENSRNOT00000020472.6	Cxxc1	ENSRNOG0000014614	CXXC finger protein 1 Source RGD Symbol Acc 1310755
B02	UPFR1014369	ENSRNOT00000064932.4	Dnmt1	ENSRNOG0000039859	DNA methyltransferase 1 Source RGD Symbol Acc 620979
B03	UPFR1095842	ENSRNOT00000047210.3	Dnmt3a	ENSRNOG0000026649	DNA methyltransferase 3 alpha Source RGD Symbol Acc 1303336
B04	UPFR1027976	ENSRNOT00000015482.6	Dnmt3b	ENSRNOG0000010625	DNA methyltransferase 3 beta Source RGD Symbol Acc 1303274
B05	UPFR1074832	ENSRNOT00000051467.4	Dot1l	ENSRNOG0000032546	DOT1 like histone lysine methyltransferase Source RGD Symbol Acc 1306644
B06	UPFR1033921	ENSRNOT00000022196.5	Edf1	ENSRNOG0000016272	endothelial differentiation-related factor 1 Source RGD Symbol Acc 1308073
B07	UPFR1045450	ENSRNOT00000024082.6	Eed	ENSRNOG0000017509	embryonic ectoderm development Source RGD Symbol Acc 1309782
B08	UPFR1059361	ENSRNOT00000066777.3	Ehmt1	ENSRNOG0000007242	euchromatic histone lysine methyltransferase 1 Source RGD Symbol Acc 1307588
B09	UPFR1050659	ENSRNOT00000047370.5	Ehmt2	ENSRNOG0000030630	euchromatic histone lysine methyltransferase 2 Source RGD Symbol Acc 1302972
B10	UPFR1102114	ENSRNOT00000000206.7	AABR07058539.1	ENSRNOG0000000190	
B11	UPFR1100129	ENSRNOT00000019968.7	Epc1	ENSRNOG0000014834	enhancer of polycomb homolog 1 Source RGD Symbol Acc 2324280
B12	UPFR1017868	ENSRNOT00000008149.5	Ezh2	ENSRNOG0000006048	enhancer of zeste 2 polycomb repressive complex 2 subunit Source RGD Symbol Acc 1595860
C01	UPFR1031684	ENSRNOT00000021998.5	Fbxo11	ENSRNOG0000016396	F-box protein 11 Source RGD Symbol Acc 727935
C02	UPFR1035337	ENSRNOT00000002085.6	Hat1	ENSRNOG0000001524	histone acetyltransferase 1 Source RGD Symbol Acc 1305716
C03	UPFR1113247	ENSRNOT00000012854.6	Hdac1	ENSRNOG0000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
C04	UPFR1057574	ENSRNOT00000055865.3	Hdac10	ENSRNOG0000031915	histone deacetylase 10 Source RGD Symbol Acc 1305874
C05	UPFR1088964	ENSRNOT00000008962.6	Hdac11	ENSRNOG0000006824	histone deacetylase 11 Source RGD Symbol Acc 1311706
C06	UPFR1046762	ENSRNOT00000000742.5	Hdac2	ENSRNOG0000000604	histone deacetylase 2 Source RGD Symbol Acc 619976
C07	UPFR1042112	ENSRNOT00000078667.1	Hdac3	ENSRNOG0000019618	histone deacetylase 3 Source RGD Symbol Acc 619977
C08	UPFR1016277	ENSRNOT00000027622.6	Hdac4	ENSRNOG0000020372	histone deacetylase 4 Source RGD Symbol Acc 619979
C09	UPFR1070143	ENSRNOT00000055187.4	Hdac5	ENSRNOG0000020905	histone deacetylase 5 Source RGD Symbol Acc 619980
C10	UPFR1060810	ENSRNOT00000009295.6	Hdac6	ENSRNOG0000048738	histone deacetylase 6 Source RGD Symbol Acc 619981
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1024943	092029.1	Hdac7	000055597	histone deacetylase 7 Source RGD Symbol Acc 619982
C12	UPFR1017651	ENSRNOT0000004224.6	Hdac8	ENSRNOG0000003122	histone deacetylase 8 Source RGD Symbol Acc 1562895
D01	UPFR1073905	ENSRNOT00000005521.7	Hdac9	ENSRNOG0000004158	histone deacetylase 9 Source RGD Symbol Acc 1310748
D02	UPFR1051547	ENSRNOT00000007476.5	Ing3	ENSRNOG0000005496	inhibitor of growth family, member 3 Source RGD Symbol Acc 1310556
D03	UPFR1115355	ENSRNOT00000064671.2	Jmjd6	ENSRNOG0000000250	jumonji domain containing 6, arginine demethylase and lysine hydroxylase Source RGD Symbol Acc 1305395
D04	UPFR1058224	ENSRNOT00000055250.3	Kat2a	ENSRNOG0000018364	lysine acetyltransferase 2A Source RGD Symbol Acc 1307242
D05	UPFR1087297	ENSRNOT00000088799.1	Kat5	ENSRNOG0000061012	lysine acetyltransferase 5 Source RGD Symbol Acc 621061
D06	UPFR1061597	ENSRNOT00000016112.7	Mbd2	ENSRNOG0000011853	methyl-CpG binding domain protein 2 Source RGD Symbol Acc 1595452
D07	UPFR1052224	ENSRNOT00000011947.4	Med24	ENSRNOG0000008711	mediator complex subunit 24 Source RGD Symbol Acc 1564565
D08	UPFR1037929	ENSRNOT00000028592.6	Men1	ENSRNOG0000021054	menin 1 Source RGD Symbol Acc 3078
D09	UPFR1042839	ENSRNOT00000020573.6	Kmf2a	ENSRNOG0000015133	lysine methyltransferase 2A Source RGD Symbol Acc 1586165
D10	UPFR1085802	ENSRNOT00000068276.4	Kmf2e	ENSRNOG0000021614	lysine methyltransferase 2E Source RGD Symbol Acc 1309641
D11	UPFR1049843	ENSRNOT00000027141.5	Mta2	ENSRNOG0000019913	metastasis associated 1 family, member 2 Source RGD Symbol Acc 1306743
D12	UPFR1035967	ENSRNOT00000026527.4	Kat8	ENSRNOG0000019585	lysine acetyltransferase 8 Source RGD Symbol Acc 1311512
E01	UPFR1102683	ENSRNOT00000031252.6	Kat7	ENSRNOG0000022664	K(lysine) acetyltransferase 7 Source MGI Symbol Acc MGI 2182799
E02	UPFR1099438	ENSRNOT00000078743.1	Kat6a	ENSRNOG0000025174	lysine acetyltransferase 6A Source RGD Symbol Acc 1304892
E03	UPFR1072465	ENSRNOT00000007768.7	Ncoa3	ENSRNOG0000005616	nuclear receptor coactivator 3 Source RGD Symbol Acc 620109
E04	UPFR1103463	ENSRNOT00000024714.7	Ncoa6	ENSRNOG0000018288	nuclear receptor coactivator 6 Source RGD Symbol Acc 620111
E05	UPFR1022324	ENSRNOT00000081409.1	Ncor1	ENSRNOG0000055246	nuclear receptor co-repressor 1 Source RGD Symbol Acc 3612
E06	UPFR1095657	ENSRNOT00000086147.1	Nek6	ENSRNOG0000010897	NIMA-related kinase 6 Source RGD Symbol Acc 727779
E07	UPFR1121879	ENSRNOT00000060928.2	Nsd1	ENSRNOG0000016680	nuclear receptor binding SET domain protein 1 Source RGD Symbol Acc 1307748
E08	UPFR1066459	ENSRNOT00000091952.1	Pak1	ENSRNOG0000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
E09	UPFR1015291	ENSRNOT00000041175.4	Prdm2	ENSRNOG0000033522	PR/SET domain 2 Source RGD Symbol Acc 1594531
E10	UPFR1025380	ENSRNOT00000066370.3	Prdm9	ENSRNOG0000021493	PR/SET domain 9 Source RGD Symbol Acc 1305247
E11	UPFR1035147	ENSRNOT00000064272.3	Prmt1	ENSRNOG0000026109	protein arginine methyltransferase 1 Source RGD Symbol Acc 62020
E12	UPFR1112325	ENSRNOT00000050531.3	Prmt2	ENSRNOG0000001297	protein arginine methyltransferase 2 Source RGD Symbol Acc 1565519
F01	UPFR1101574	ENSRNOT00000016302.4	Prmt5	ENSRNOG0000012046	protein arginine methyltransferase 5 Source RGD Symbol Acc 1309053
F02	UPFR1076673	ENSRNOT00000023079.3	LOC108348173	ENSRNOG0000017187	protein arginine N-methyltransferase 6 Source RGD Symbol Acc 11469917
F03	UPFR1113484	ENSRNOT00000000275.6	Prmt7	ENSRNOG0000000258	protein arginine methyltransferase 7 Source RGD Symbol Acc 1304869
F04	UPFR1027433	ENSRNOT00000036110.2	Rbbp5	ENSRNOG0000021289	RB binding protein 5, histone lysine methyltransferase complex subunit Source RGD Symbol Acc 1305532
F05	UPFR1055293	ENSRNOT00000092053.1	Rnf2	ENSRNOG0000002454	ring finger protein 2 Source RGD Symbol Acc 1305491
F06	UPFR1107585	ENSRNOT00000059869.3	Rnf20	ENSRNOG0000006087	ring finger protein 20 Source RGD Symbol Acc 1311936
F07	UPFR1041256	ENSRNOT00000025499.2	Rnf40	ENSRNOG0000018840	ring finger protein 40 Source RGD Symbol Acc 628638
F08	UPFR1013406	ENSRNOT00000091693.1	Rps6ka5	ENSRNOG0000004362	ribosomal protein S6 kinase A5 Source RGD Symbol Acc 1308336
F09	UPFR1086689	ENSRNOT00000002308.5	Setd4	ENSRNOG0000001699	SET domain containing 4 Source RGD Symbol Acc 619899
F10	UPFR1023446	ENSRNOT00000066723.2	Setd5	ENSRNOG0000007472	SET domain containing 5 Source RGD Symbol Acc 1310433

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1054671	ENSRNOT00000016626.5	Setd6	ENSRNOG0000012447	SET domain containing 6 Source RGD Symbol Acc 1560538
F12	UPFR1119623	ENSRNOT00000036781.7	Setdb2	ENSRNOG0000021680	SET domain bifurcated histone lysine methyltransferase 2 Source RGD Symbol Acc 2319564
G01	UPFR1112360	ENSRNOT00000078739.1	AABR07044925.1	ENSRNOG0000051592	sirtuin 1 Source NCBI gene Acc 309757
G02	UPFR1049217	ENSRNOT00000084839.1	Sirt2	ENSRNOG0000020102	sirtuin 2 Source RGD Symbol Acc 621481
G03	UPFR1106539	ENSRNOT00000009184.5	Smyd1	ENSRNOG0000006776	SET and MYND domain containing 1 Source RGD Symbol Acc 1305105
G04	UPFR1081494	ENSRNOT00000004783.6	Smyd2	ENSRNOG0000003583	SET and MYND domain containing 2 Source RGD Symbol Acc 727785
G05	UPFR1027078	ENSRNOT00000006543.4	Supt7l	ENSRNOG0000004927	SPT7-like STAGA complex gamma subunit Source RGD Symbol Acc 1562206
G06	UPFR1051998	ENSRNOT00000008399.5	Suv39h1l1	ENSRNOG0000039576	suppressor of variegation 3-9 homolog 1 (Drosophila)-like 1 Source RGD Symbol Acc 1565028
G07	UPFR1078466	ENSRNOT00000077953.1	Suv39h2	ENSRNOG0000015585	suppressor of variegation 3-9 homolog 2 Source RGD Symbol Acc 1306969
G08	UPFR1096954	ENSRNOT00000022486.6	Kmt5b	ENSRNOG0000016790	lysine methyltransferase 5B Source RGD Symbol Acc 1311637
G09	UPFR1031571	ENSRNOT00000023744.5	Kmt5c	ENSRNOG0000017508	lysine methyltransferase 5C Source RGD Symbol Acc 1305226
G10	UPFR1089482	ENSRNOT00000083861.2	Ube2a	ENSRNOG0000039985	ubiquitin-conjugating enzyme E2A Source RGD Symbol Acc 1359534
G11	UPFR1081348	ENSRNOT00000016742.7	LOC103694902	ENSRNOG0000005064	ubiquitin-conjugating enzyme E2B Source RGD Symbol Acc 708345
G12	UPFR1060215	ENSRNOT00000002173.6	Usp16	ENSRNOG0000001598	ubiquitin specific peptidase 16 Source RGD Symbol Acc 1307192
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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