

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

## Rat Epigenetic Chromatin Modification Enzymes

Cat. no. 249950 SBRN-085ZA

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

### Panel layout (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA PCR System 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	Ahf2	Aurka	Aurkb	Aurkc	Baz1b	Bra2	Cdk2	Ctita	Crebbp
<b>B</b>	Cxoc1	Dnmt1	Dnmt3a	Dnmt3b	Dot1l	Eedf1	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	Ncoo3	Ncoo6	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	Supl7l	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 PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBR1108084	ENSRNOT00000022244.3	Kdm1b	ENSRNOG0000016519	lysine demethylase 1B Source RGD Symbol Acc 1310701
A02	SBR1146041	ENSRNOT00000027629.7	Ash1l	ENSRNOG0000020386	ASH1 like histone lysine methyltransferase Source RGD Symbol Acc 1306350
A03	SBR1195638	ENSRNOT00000020181.7	Ash2l	ENSRNOG0000014875	ASH2 like histone lysine methyltransferase complex subunit Source RGD Symbol Acc 1305632
A04	SBR1207469	ENSRNOT00000002174.7	Atf2	ENSRNOG0000001597	activating transcription factor 2 Source RGD Symbol Acc 621862
A05	SBR1180416	ENSRNOT00000055102.4	Aurka	ENSRNOG0000004479	aurora kinase A Source RGD Symbol Acc 628895
A06	SBR1202691	ENSRNOT00000008492.6	Aurkb	ENSRNOG0000005659	aurora kinase B Source RGD Symbol Acc 621625
A07	SBR1130862	ENSRNOT00000021245.7	Aurkc	ENSRNOG0000015825	aurora kinase C Source RGD Symbol Acc 1309573
A08	SBR1126032	ENSRNOT00000001975.7	Baz1b	ENSRNOG0000001453	bromodomain adjacent to zinc finger domain, 1B Source RGD Symbol Acc 1597089
A09	SBR1095330	ENSRNOT00000001475.7	Brc2	ENSRNOG0000001111	BRCA2, DNA repair associated Source RGD Symbol Acc 2219
A10	SBR1144473	ENSRNOT00000031963.3	Cdk2	ENSRNOG0000006469	cyclin dependent kinase 2 Source RGD Symbol Acc 70486
A11	SBR1185428	ENSRNOT00000003572.3	Ciita	ENSRNOG0000002659	class II, major histocompatibility complex, transactivator Source RGD Symbol Acc 619813
A12	SBR1115515	ENSRNOT00000007079.5	Crebbp	ENSRNOG0000005330	CREB binding protein Source RGD Symbol Acc 2401
B01	SBR1129427	ENSRNOT00000020472.6	Cxxc1	ENSRNOG0000014614	CXXC finger protein 1 Source RGD Symbol Acc 1310755
B02	SBR1100410	ENSRNOT00000064932.4	Dnmt1	ENSRNOG00000039859	DNA methyltransferase 1 Source RGD Symbol Acc 620979
B03	SBR1111953	ENSRNOT00000047210.3	Dnmt3a	ENSRNOG0000026649	DNA methyltransferase 3 alpha Source RGD Symbol Acc 1303336
B04	SBR1129706	ENSRNOT00000015482.6	Dnmt3b	ENSRNOG0000010625	DNA methyltransferase 3 beta Source RGD Symbol Acc 1303274
B05	SBR1145078	ENSRNOT00000051467.4	Dot1l	ENSRNOG00000032546	DOT1 like histone lysine methyltransferase Source RGD Symbol Acc 1306644
B06	SBR1213121	ENSRNOT00000022196.5	Edf1	ENSRNOG0000016272	endothelial differentiation-related factor 1 Source RGD Symbol Acc 1308073
B07	SBR1123287	ENSRNOT00000024082.6	Eed	ENSRNOG0000017509	embryonic ectoderm development Source RGD Symbol Acc 1309782
B08	SBR1201859	ENSRNOT00000086843.1	Ehmt1	ENSRNOG0000007242	euchromatic histone lysine methyltransferase 1 Source RGD Symbol Acc 1307588
B09	SBR1101083	ENSRNOT00000047370.5	Ehmt2	ENSRNOG00000030630	euchromatic histone lysine methyltransferase 2 Source RGD Symbol Acc 1302972
B10	SBR1104886	ENSRNOT00000000206.7	AABR07058539.1	ENSRNOG0000000190	
B11	SBR1196189	ENSRNOT00000019968.7	Epc1	ENSRNOG0000014834	enhancer of polycomb homolog 1 Source RGD Symbol Acc 2324280
B12	SBR1193211	ENSRNOT00000008149.5	Ezh2	ENSRNOG0000006048	enhancer of zeste 2 polycomb repressive complex 2 subunit Source RGD Symbol Acc 1595860
C01	SBR1154034	ENSRNOT00000021998.5	Fbxo11	ENSRNOG0000016396	F-box protein 11 Source RGD Symbol Acc 727935
C02	SBR1198969	ENSRNOT00000002085.6	Hat1	ENSRNOG0000001524	histone acetyltransferase 1 Source RGD Symbol Acc 1305716
C03	SBR1151584	ENSRNOT00000012854.6	Hdac1	ENSRNOG0000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
C04	SBR1197297	ENSRNOT00000055865.3	Hdac10	ENSRNOG0000031915	histone deacetylase 10 Source RGD Symbol Acc 1305874
C05	SBR1176182	ENSRNOT00000008962.6	Hdac11	ENSRNOG0000006824	histone deacetylase 11 Source RGD Symbol Acc 1311706
C06	SBR1179979	ENSRNOT00000000742.5	Hdac2	ENSRNOG0000000604	histone deacetylase 2 Source RGD Symbol Acc 619976
C07	SBR1205541	ENSRNOT00000060417.4	Hdac3	ENSRNOG0000019618	histone deacetylase 3 Source RGD Symbol Acc 619977
C08	SBR1137239	ENSRNOT00000027622.6	Hdac4	ENSRNOG0000020372	histone deacetylase 4 Source RGD Symbol Acc 619979
C09	SBR1210339	ENSRNOT00000055187.4	Hdac5	ENSRNOG0000020905	histone deacetylase 5 Source RGD Symbol Acc 619980
C10	SBR1188831	ENSRNOT00000009295.6	Hdac6	ENSRNOG0000048738	histone deacetylase 6 Source RGD Symbol Acc 619981
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1104907	092029.1	Hdac7	000055597	histone deacetylase 7 Source RGD Symbol Acc 619982
C12	SBR1151711	ENSRNOT0000004224.6	Hdac8	ENSRNOG0000003122	histone deacetylase 8 Source RGD Symbol Acc 1562895
D01	SBR1151365	ENSRNOT00000086038.1	Hdac9	ENSRNOG0000004158	histone deacetylase 9 Source RGD Symbol Acc 1310748
D02	SBR1111530	ENSRNOT00000007476.5	Ing3	ENSRNOG0000005496	inhibitor of growth family, member 3 Source RGD Symbol Acc 1310556
D03	SBR1133537	ENSRNOT00000064671.2	Jmjd6	ENSRNOG0000000250	jumonji domain containing 6, arginine demethylase and lysine hydroxylase Source RGD Symbol Acc 1305395
D04	SBR1162729	ENSRNOT00000055250.3	Kat2a	ENSRNOG0000018364	lysine acetyltransferase 2A Source RGD Symbol Acc 1307242
D05	SBR1193018	ENSRNOT00000088799.1	Kat5	ENSRNOG0000061012	lysine acetyltransferase 5 Source RGD Symbol Acc 621061
D06	SBR1120711	ENSRNOT00000016112.7	Mbd2	ENSRNOG0000011853	methyl-CpG binding domain protein 2 Source RGD Symbol Acc 1595452
D07	SBR1124380	ENSRNOT00000011947.4	Med24	ENSRNOG0000008711	mediator complex subunit 24 Source RGD Symbol Acc 1564565
D08	SBR1171185	ENSRNOT00000028592.6	Men1	ENSRNOG0000021054	menin 1 Source RGD Symbol Acc 3078
D09	SBR1120968	ENSRNOT00000020573.6	Kmf2a	ENSRNOG0000015133	lysine methyltransferase 2A Source RGD Symbol Acc 1586165
D10	SBR1107102	ENSRNOT00000068276.4	Kmf2e	ENSRNOG0000021614	lysine methyltransferase 2E Source RGD Symbol Acc 1309641
D11	SBR1202682	ENSRNOT00000027141.5	Mta2	ENSRNOG0000019913	metastasis associated 1 family, member 2 Source RGD Symbol Acc 1306743
D12	SBR1178466	ENSRNOT00000026527.4	Kat8	ENSRNOG0000019585	lysine acetyltransferase 8 Source RGD Symbol Acc 1311512
E01	SBR1107496	ENSRNOT00000082160.1	Kat7	ENSRNOG0000022664	K(lysine) acetyltransferase 7 Source MGI Symbol Acc MGI 2182799
E02	SBR1100273	ENSRNOT00000037389.5	Kat6a	ENSRNOG0000025174	lysine acetyltransferase 6A Source RGD Symbol Acc 1304892
E03	SBR1162814	ENSRNOT00000007768.7	Ncoa3	ENSRNOG0000005616	nuclear receptor coactivator 3 Source RGD Symbol Acc 620109
E04	SBR1153504	ENSRNOT00000024714.7	Ncoa6	ENSRNOG0000018288	nuclear receptor coactivator 6 Source RGD Symbol Acc 620111
E05	SBR1154337	ENSRNOT00000081409.1	Ncor1	ENSRNOG0000055246	nuclear receptor co-repressor 1 Source RGD Symbol Acc 3612
E06	SBR1134739	ENSRNOT00000014630.4	Nek6	ENSRNOG0000010897	NIMA-related kinase 6 Source RGD Symbol Acc 727779
E07	SBR1130521	ENSRNOT00000060928.2	Nsd1	ENSRNOG0000016680	nuclear receptor binding SET domain protein 1 Source RGD Symbol Acc 1307748
E08	SBR1158213	ENSRNOT00000091952.1	Pak1	ENSRNOG0000029784	p21 (RAC1) activated kinase 1 Source RGD Symbol Acc 3250
E09	SBR1095499	ENSRNOT00000078237.1	Prdm2	ENSRNOG0000033522	PR/SET domain 2 Source RGD Symbol Acc 1594531
E10	SBR1169751	ENSRNOT00000066370.3	Prdm9	ENSRNOG0000021493	PR/SET domain 9 Source RGD Symbol Acc 1305247
E11	SBR1162439	ENSRNOT00000064272.3	Prmt1	ENSRNOG0000026109	protein arginine methyltransferase 1 Source RGD Symbol Acc 62020
E12	SBR1187664	ENSRNOT00000050531.3	Prmt2	ENSRNOG0000001297	protein arginine methyltransferase 2 Source RGD Symbol Acc 1565519
F01	SBR1176870	ENSRNOT00000016302.4	Prmt5	ENSRNOG0000012046	protein arginine methyltransferase 5 Source RGD Symbol Acc 1309053
F02	SBR1195358	ENSRNOT00000023079.3	LOC108348173	ENSRNOG0000017187	protein arginine N-methyltransferase 6 Source RGD Symbol Acc 11469917
F03	SBR1104255	ENSRNOT00000081312.1	Prmt7	ENSRNOG0000000258	protein arginine methyltransferase 7 Source RGD Symbol Acc 1304869
F04	SBR1174349	ENSRNOT00000036110.2	Rbbp5	ENSRNOG0000021289	RB binding protein 5, histone lysine methyltransferase complex subunit Source RGD Symbol Acc 1305532
F05	SBR1116695	ENSRNOT00000092053.1	Rnf2	ENSRNOG0000002454	ring finger protein 2 Source RGD Symbol Acc 1305491
F06	SBR1155308	ENSRNOT00000059869.3	Rnf20	ENSRNOG0000006087	ring finger protein 20 Source RGD Symbol Acc 1311936
F07	SBR1093992	ENSRNOT00000025499.2	Rnf40	ENSRNOG0000018840	ring finger protein 40 Source RGD Symbol Acc 628638
F08	SBR1117694	ENSRNOT00000064716.2	Rps6ka5	ENSRNOG0000004362	ribosomal protein S6 kinase A5 Source RGD Symbol Acc 1308336
F09	SBR1176846	ENSRNOT00000002308.5	Setd4	ENSRNOG0000001699	SET domain containing 4 Source RGD Symbol Acc 619899
F10	SBR1212857	ENSRNOT00000066723.2	Setd5	ENSRNOG0000007472	SET domain containing 5 Source RGD Symbol Acc 1310433

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1128303	ENSRNOT00000016626.5	Setd6	ENSRNOG0000012447	SET domain containing 6 Source RGD Symbol Acc 1560538
F12	SBR1166901	ENSRNOT00000074587.3	Setdb2	ENSRNOG0000021680	SET domain bifurcated histone lysine methyltransferase 2 Source RGD Symbol Acc 2319564
G01	SBR1134550	ENSRNOT00000078739.1	AABR07044925.1	ENSRNOG0000051592	sirtuin 1 Source NCBI gene Acc 309757
G02	SBR1153037	ENSRNOT00000064153.1	Sirt2	ENSRNOG0000020102	sirtuin 2 Source RGD Symbol Acc 621481
G03	SBR1143653	ENSRNOT00000009184.5	Smyd1	ENSRNOG0000006776	SET and MYND domain containing 1 Source RGD Symbol Acc 1305105
G04	SBR1122588	ENSRNOT00000004783.6	Smyd2	ENSRNOG0000003583	SET and MYND domain containing 2 Source RGD Symbol Acc 727785
G05	SBR1152637	ENSRNOT00000006543.4	Supt7l	ENSRNOG0000004927	SPT7-like STAGA complex gamma subunit Source RGD Symbol Acc 1562206
G06	SBR1192172	ENSRNOT00000008399.5	Suv39h1l1	ENSRNOG0000039576	suppressor of variegation 3-9 homolog 1 (Drosophila)-like 1 Source RGD Symbol Acc 1565028
G07	SBR1214920	ENSRNOT00000020924.4	Suv39h2	ENSRNOG0000015585	suppressor of variegation 3-9 homolog 2 Source RGD Symbol Acc 1306969
G08	SBR1094359	ENSRNOT00000022486.6	Kmt5b	ENSRNOG0000016790	lysine methyltransferase 5B Source RGD Symbol Acc 1311637
G09	SBR1102509	ENSRNOT00000023744.5	Kmt5c	ENSRNOG0000017508	lysine methyltransferase 5C Source RGD Symbol Acc 1305226
G10	SBR1121305	ENSRNOT00000061455.5	Ube2a	ENSRNOG0000039985	ubiquitin-conjugating enzyme E2A Source RGD Symbol Acc 1359534
G11	SBR1120947	ENSRNOT00000016742.7	LOC103694902	ENSRNOG0000005064	ubiquitin-conjugating enzyme E2B Source RGD Symbol Acc 708345
G12	SBR1201753	ENSRNOT00000002173.6	Usp16	ENSRNOG0000001598	ubiquitin specific peptidase 16 Source RGD Symbol Acc 1307192
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	SBR1218555	Sybr_RGDC	RGDC	Sybr_RGDC	Rat Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208052

\*Larger kit sizes available.

The QuantiNova LNA 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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