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

Mouse Cell Cycle

Cat. no. 249950 SBMM-020ZA

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Abl1	Atm	Atr	Aurka	Aurkb	Bcl2	Birc5	Brca1	Brca2	Casp3	Ccna1	Ccna2
B	Ccnb1	Ccnb2	Ccnc	Ccnd1	Ccnd2	Ccnd3	Ccne1	Ccnf	Cdc20	Cdc25a	Cdc25c	Cdc6
C	Cdc7	Cdk1	Cdk2	Cdk4	Cdk5rap1	Cdk6	Cdkn1a	Cdkn1b	Cdkn2a	Cdkn2b	Cdkn3	Chek1
D	Chek2	Cks1b	Ddit3	Dst	E2f1	E2f2	E2f3	E2f4	Gadd45a	Gpr132	Hus1	Itgb1
E	Mad2l1	Mcm2	Mcm3	Mcm4	Mdm2	Mki67	Mre11a	Msh2	Myb	Nbn	Nek2	Notch2
F	Pkd1	Pmp22	Ppm1d	Rad17	Rad21	Rad51	Rad9a	Ran	Rb1	Rbl1	Rbl2	Sfn
G	Shc1	Skp2	Slfn1	Smc1a	Stag1	Stmn1	Terf1	Tfdp1	Trp53	Trp63	Tsg101	Wee1
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM1025688	ENSMUST00000127714.1	Abl1	ENSMUSG00000026842	c-abl oncogene 1, non-receptor tyrosine kinase Source MGI Symbol Acc MGI 87859
A02	SBM0745660	ENSMUST00000150244.1	Atm	ENSMUSG00000034218	ataxia telangiectasia mutated Source MGI Symbol Acc MGI 107202
A03	SBM0707457	ENSMUST00000189602.6	Atr	ENSMUSG00000032409	ataxia telangiectasia and Rad3 related Source MGI Symbol Acc MGI 108028
A04	SBM0964097	ENSMUST00000028997.7	Aurka	ENSMUSG00000027496	aurora kinase A Source MGI Symbol Acc MGI 894678
A05	SBM0735299	ENSMUST00000126576.1	Aurkb	ENSMUSG00000020897	aurora kinase B Source MGI Symbol Acc MGI 107168
A06	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG00000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A07	SBM0773958	ENSMUST00000081387.10	Birc5	ENSMUSG00000017716	baculoviral IAP repeat-containing 5 Source MGI Symbol Acc MGI 1203517
A08	SBM0935779	ENSMUST00000142086.2	Brca1	ENSMUSG00000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
A09	SBM0807222	ENSMUST00000201226.1	Brca2	ENSMUSG00000041147	breast cancer 2, early onset Source MGI Symbol Acc MGI 109337
A10	SBM0732165	ENSMUST00000093517.6	Casp3	ENSMUSG00000031628	caspase 3 Source MGI Symbol Acc MGI 107739
A11	SBM0877611	ENSMUST00000197238.4	Ccna1	ENSMUSG00000027793	cyclin A1 Source MGI Symbol Acc MGI 108042
A12	SBM0908421	ENSMUST00000029270.9	Ccna2	ENSMUSG00000027715	cyclin A2 Source MGI Symbol Acc MGI 108069
B01	SBM0677113	ENSMUST00000147790.1	Ccnb1	ENSMUSG00000041431	cyclin B1 Source MGI Symbol Acc MGI 88302
B02	SBM0976587	ENSMUST00000034742.7	Ccnb2	ENSMUSG00000032218	cyclin B2 Source MGI Symbol Acc MGI 88311
B03	SBM0927838	ENSMUST00000120679.7	Ccnc	ENSMUSG00000028252	cyclin C Source MGI Symbol Acc MGI 1858199
B04	SBM0706150	ENSMUST00000093962.4	Ccnd1	ENSMUSG00000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
B05	SBM0977018	ENSMUST00000201066.1	Ccnd2	ENSMUSG00000000184	cyclin D2 Source MGI Symbol Acc MGI 88314
B06	SBM0907619	ENSMUST00000182935.7	Ccnd3	ENSMUSG00000034165	cyclin D3 Source MGI Symbol Acc MGI 88315
B07	SBM0866938	ENSMUST00000124979.2	Ccne1	ENSMUSG00000002068	cyclin E1 Source MGI Symbol Acc MGI 88316
B08	SBM0679909	ENSMUST00000234491.1	Ccnf	ENSMUSG00000072082	cyclin F Source MGI Symbol Acc MGI 102551
B09	SBM0827848	ENSMUST00000183942.1	Cdc20	ENSMUSG00000006398	cell division cycle 20 Source MGI Symbol Acc MGI 1859866
B10	SBM0768186	ENSMUST00000199787.2	Cdc25a	ENSMUSG00000032477	cell division cycle 25A Source MGI Symbol Acc MGI 103198
B11	SBM0971821	ENSMUST00000060710.8	Cdc25c	ENSMUSG00000044201	cell division cycle 25C Source MGI Symbol Acc MGI 88350
B12	SBM0867085	ENSMUST00000133779.8	Cdc6	ENSMUSG00000017499	cell division cycle 6 Source MGI Symbol Acc MGI 1345150
C01	SBM0728311	ENSMUST00000076467.12	Cdc7	ENSMUSG00000029283	cell division cycle 7 (S. cerevisiae) Source MGI Symbol Acc MGI 1309511
C02	SBM0979951	ENSMUST00000129444.7	Cdk1	ENSMUSG00000019942	cyclin-dependent kinase 1 Source MGI Symbol Acc MGI 88351
C03	SBM1030284	ENSMUST00000219601.1	Cdk2	ENSMUSG00000025358	cyclin-dependent kinase 2 Source MGI Symbol Acc MGI 104772
C04	SBM0702559	ENSMUST00000120226.7	Cdk4	ENSMUSG00000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
C05	SBM1082595	ENSMUST00000109731.7	Cdk5rap1	ENSMUSG00000027487	CDK5 regulatory subunit associated protein 1 Source MGI Symbol Acc MGI 1914221
C06	SBM0726060	ENSMUST00000165117.7	Cdk6	ENSMUSG00000040274	cyclin-dependent kinase 6 Source MGI Symbol Acc MGI 1277162
C07	SBM1034022	ENSMUST00000023829.7	Cdkn1a	ENSMUSG00000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
C08	SBM1006924	ENSMUST00000067327.10	Cdkn1b	ENSMUSG00000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
C09	SBM0998051	ENSMUST00000060501.4	Cdkn2a	ENSMUSG00000044303	cyclin dependent kinase inhibitor 2A Source MGI Symbol Acc MGI 104738
C10	SBM1002560	ENSMUST00000097981.5	Cdkn2b	ENSMUSG00000073802	cyclin dependent kinase inhibitor 2B Source MGI Symbol Acc MGI 104737
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0877525	067426.5	Cdkn3	000037628	cyclin-dependent kinase inhibitor 3 Source MGI Symbol Acc MGI 1919641
C12	SBM0725925	ENSMUST00000 173963.8	Chek1	ENSMUSG00 000032113	checkpoint kinase 1 Source MGI Symbol Acc MGI 1202065
D01	SBM0884188	ENSMUST00000 066160.2	Chek2	ENSMUSG00 000029521	checkpoint kinase 2 Source MGI Symbol Acc MGI 1355321
D02	SBM0940530	ENSMUST00000 107422.1	Cks1b	ENSMUSG00 000028044	CDC28 protein kinase 1b Source MGI Symbol Acc MGI 1889208
D03	SBM0724182	ENSMUST00000 139091.1	Ddit3	ENSMUSG00 000025408	DNA-damage inducible transcript 3 Source MGI Symbol Acc MGI 109247
D04	SBM0918512	ENSMUST00000 183331.7	Dst	ENSMUSG00 000026131	dystonin Source MGI Symbol Acc MGI 104627
D05	SBM0678575	ENSMUST00000 000894.5	E2f1	ENSMUSG00 000027490	E2F transcription factor 1 Source MGI Symbol Acc MGI 101941
D06	SBM0845229	ENSMUST00000 149750.1	E2f2	ENSMUSG00 000018983	E2F transcription factor 2 Source MGI Symbol Acc MGI 1096341
D07	SBM0884968	ENSMUST00000 102948.10	E2f3	ENSMUSG00 000016477	E2F transcription factor 3 Source MGI Symbol Acc MGI 1096340
D08	SBM1013821	ENSMUST00000 015003.9	E2f4	ENSMUSG00 000014859	E2F transcription factor 4 Source MGI Symbol Acc MGI 103012
D09	SBM0962210	ENSMUST00000 151958.1	Gadd45a	ENSMUSG00 000036390	growth arrest and DNA-damage-inducible 45 alpha Source MGI Symbol Acc MGI 107799
D10	SBM1040199	ENSMUST00000 222776.1	Gpr132	ENSMUSG00 000021298	G protein-coupled receptor 132 Source MGI Symbol Acc MGI 1890220
D11	SBM0890659	ENSMUST00000 127578.1	Hus1	ENSMUSG00 000020413	HUS1 checkpoint clamp component Source MGI Symbol Acc MGI 1277962
D12	SBM0691612	ENSMUST00000 090006.11	Itgb1	ENSMUSG00 000025809	integrin beta 1 (fibronectin receptor beta) Source MGI Symbol Acc MGI 96610
E01	SBM0850456	ENSMUST00000 101343.1	Mad2l1	ENSMUSG00 000029910	MAD2 mitotic arrest deficient-like 1 Source MGI Symbol Acc MGI 1860374
E02	SBM1084871	ENSMUST00000 058011.7	Mcm2	ENSMUSG00 000002870	minichromosome maintenance complex component 2 Source MGI Symbol Acc MGI 105380
E03	SBM0704691	ENSMUST00000 185296.1	Mcm3	ENSMUSG00 000041859	minichromosome maintenance complex component 3 Source MGI Symbol Acc MGI 101845
E04	SBM0844518	ENSMUST00000 230437.1	Mcm4	ENSMUSG00 000022673	minichromosome maintenance complex component 4 Source MGI Symbol Acc MGI 103199
E05	SBM0989223	ENSMUST00000 020408.15	Mdm2	ENSMUSG00 000020184	transformed mouse 3T3 cell double minute 2 Source MGI Symbol Acc MGI 96952
E06	SBM0976366	ENSMUST00000 211238.1	Mki67	ENSMUSG00 000031004	antigen identified by monoclonal antibody Ki 67 Source MGI Symbol Acc MGI 106035
E07	SBM0787147	ENSMUST00000 215820.1	Mre11a	ENSMUSG00 000031928	MRE11A homolog A, double strand break repair nuclease Source MGI Symbol Acc MGI 1100512
E08	SBM0831857	ENSMUST00000 172855.1	Msh2	ENSMUSG00 000024151	mutS homolog 2 Source MGI Symbol Acc MGI 101816
E09	SBM0801960	ENSMUST00000 020158.8	Myb	ENSMUSG00 000019982	myeloblastosis oncogene Source MGI Symbol Acc MGI 97249
E10	SBM0680530	ENSMUST00000 029879.14	Nbn	ENSMUSG00 000028224	nibrin Source MGI Symbol Acc MGI 1351625
E11	SBM0686823	ENSMUST00000 150839.1	Nek2	ENSMUSG00 000026622	NIMA (never in mitosis gene a)-related expressed kinase 2 Source MGI Symbol Acc MGI 109359
E12	SBM0724048	ENSMUST00000 079812.7	Notch2	ENSMUSG00 000027878	notch 2 Source MGI Symbol Acc MGI 97364
F01	SBM0973476	ENSMUST00000 228581.1	Pkd1	ENSMUSG00 000032855	polycystin 1, transient receptor poteintial channel interacting Source MGI Symbol Acc MGI 97603
F02	SBM0727313	ENSMUST00000 140648.1	Pmp22	ENSMUSG00 000018217	peripheral myelin protein 22 Source MGI Symbol Acc MGI 97631
F03	SBM0864740	ENSMUST00000 020835.15	Ppm1d	ENSMUSG00 000020525	protein phosphatase 1D magnesium-dependent, delta isoform Source MGI Symbol Acc MGI 1858214
F04	SBM0733888	ENSMUST00000 022136.13	Rad17	ENSMUSG00 000021635	RAD17 checkpoint clamp loader component Source MGI Symbol Acc MGI 1333807
F05	SBM0870390	ENSMUST00000 226529.1	Rad21	ENSMUSG00 000022314	RAD21 cohesin complex component Source MGI Symbol Acc MGI 108016
F06	SBM0702001	ENSMUST00000 110828.1	Rad51	ENSMUSG00 000027323	RAD51 recombinase Source MGI Symbol Acc MGI 97890
F07	SBM0843955	ENSMUST00000 237278.1	Rad9a	ENSMUSG00 000024824	RAD9 checkpoint clamp component A Source MGI Symbol Acc MGI 1328356
F08	SBM0899361	ENSMUST00000 111343.1	Ran	ENSMUSG00 000029430	RAN, member RAS oncogene family Source MGI Symbol Acc MGI 1333112
F09	SBM0795530	ENSMUST00000 168495.1	Rb1	ENSMUSG00 000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
F10	SBM1034359	ENSMUST00000 141296.1	Rbl1	ENSMUSG00 000027641	RB transcriptional corepressor like 1 Source MGI Symbol Acc MGI 103300

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1089037	ENSMUST00000144190.7	Rbl2	ENSMUSG00000031666	RB transcriptional corepressor like 2 Source MGI Symbol Acc MGI 105085
F12	SBM1012777	ENSMUST00000057311.3	Sfn	ENSMUSG00000047281	stratifin Source MGI Symbol Acc MGI 1891831
G01	SBM0684894	ENSMUST00000128238.7	Shc1	ENSMUSG00000042626	src homology 2 domain-containing transforming protein C1 Source MGI Symbol Acc MGI 98296
G02	SBM0771788	ENSMUST00000096482.9	Skp2	ENSMUSG00000054115	S-phase kinase-associated protein 2 (p45) Source MGI Symbol Acc MGI 1351663
G03	SBM0704895	ENSMUST00000037994.7	Slfn1	ENSMUSG00000078763	schlafen 1 Source MGI Symbol Acc MGI 1313259
G04	SBM1046284	ENSMUST00000045312.5	Smc1a	ENSMUSG00000041133	structural maintenance of chromosomes 1A Source MGI Symbol Acc MGI 1344345
G05	SBM0914524	ENSMUST00000123315.7	Stag1	ENSMUSG00000037286	stromal antigen 1 Source MGI Symbol Acc MGI 1098658
G06	SBM0820556	ENSMUST00000130253.1	Stmn1	ENSMUSG00000028832	stathmin 1 Source MGI Symbol Acc MGI 96739
G07	SBM1006727	ENSMUST00000027057.7	Terf1	ENSMUSG00000025925	telomeric repeat binding factor 1 Source MGI Symbol Acc MGI 109634
G08	SBM0901879	ENSMUST00000170909.1	Tfdp1	ENSMUSG00000038482	transcription factor Dp 1 Source MGI Symbol Acc MGI 101934
G09	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG00000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G10	SBM1225399	ENSMUST00000115306.7	Trp63	ENSMUSG00000022510	transformation related protein 63 Source MGI Symbol Acc MGI 1330810
G11	SBM0905863	ENSMUST00000209538.1	Tsg101	ENSMUSG00000014402	tumor susceptibility gene 101 Source MGI Symbol Acc MGI 106581
G12	SBM0782254	ENSMUST00000033326.9	Wee1	ENSMUSG00000031016	WEE 1 homolog 1 (S. pombe) Source MGI Symbol Acc MGI 103075
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG00000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	SBM1218554	Sybr_MGDC	MGDC	Sybr_MGDC	Mouse 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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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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