

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

Mouse DNA Repair

Cat. no. 249950 SBMM-042ZA

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	Apex1	Apex2	Atm	Atr	Atxn3	Bcca1	Bcca2	Brip1	Ccnh	Cno	Cdk7	Ddb1
B	Ddb2	Dmc1	Eccc1	Eccc2	Eccc3	Eccc4	Eccc5	Eccc6	Eccc8	Exo1	Fen1	Lig1
C	Lig3	Lig4	Mgmt	Mlh1	Mlh3	Mms19	Mpg	Mre11a	Msh2	Msh3	Msh4	Msh5
D	Msh6	Mtyh	Neil1	Neil2	Neil3	Nih1	Ogg1	Parp1	Parp2	Parp3	Pms1	Pms2
E	Pknox1	Polb	Pold3	Poll	Prkdc	Rad18	Rad21	Rad23a	Rad23b	Rad50	Rad51	Rad51c
F	Rad51b	Rad51d	Rad52	Rad54l	Rfc1	Rpa1	Rpa3	Sik	Smug1	Tdg	Top3a	Top3b
G	Trex1	Ung	Xab2	Xpa	Xpc	Xrcc1	Xrcc2	Xrcc3	Xrcc4	Xrcc5	Xrcc6	Atp23
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	SBM0874745	ENSMUST00000128395.1	Apex1	ENSMUSG0000035960	apurinic/apyrimidinic endonuclease 1 Source MGI Symbol Acc MGI 88042
A02	SBM1036077	ENSMUST00000112719.1	Apex2	ENSMUSG0000025269	apurinic/apyrimidinic endonuclease 2 Source MGI Symbol Acc MGI 1924872
A03	SBM0745660	ENSMUST00000150244.1	Atm	ENSMUSG0000034218	ataxia telangiectasia mutated Source MGI Symbol Acc MGI 107202
A04	SBM0707457	ENSMUST00000189602.6	Atr	ENSMUSG0000032409	ataxia telangiectasia and Rad3 related Source MGI Symbol Acc MGI 108028
A05	SBM0959195	ENSMUST00000161011.7	Atxn3	ENSMUSG0000021189	ataxin 3 Source MGI Symbol Acc MGI 1099442
A06	SBM0935779	ENSMUST00000142086.2	Brca1	ENSMUSG0000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
A07	SBM0807222	ENSMUST00000201226.1	Brca2	ENSMUSG0000041147	breast cancer 2, early onset Source MGI Symbol Acc MGI 109337
A08	SBM0715407	ENSMUST00000123366.1	Brip1	ENSMUSG0000034329	BRCA1 interacting protein C-terminal helicase 1 Source MGI Symbol Acc MGI 2442836
A09	SBM0837376	ENSMUST00000163600.7	Ccnh	ENSMUSG0000021548	cyclin H Source MGI Symbol Acc MGI 1913921
A10	SBM0873111	ENSMUST00000225555.1	Ccno	ENSMUSG0000042417	cyclin O Source MGI Symbol Acc MGI 2145534
A11	SBM0902716	ENSMUST00000091299.7	Cdk7	ENSMUSG0000069089	cyclin-dependent kinase 7 Source MGI Symbol Acc MGI 102956
A12	SBM1023117	ENSMUST00000237337.1	Ddb1	ENSMUSG0000024740	damage specific DNA binding protein 1 Source MGI Symbol Acc MGI 1202384
B01	SBM0998185	ENSMUST00000152277.7	Ddb2	ENSMUSG0000002109	damage specific DNA binding protein 2 Source MGI Symbol Acc MGI 1355314
B02	SBM0696126	ENSMUST00000023065.7	Dmc1	ENSMUSG0000022429	DNA meiotic recombinase 1 Source MGI Symbol Acc MGI 105393
B03	SBM0942819	ENSMUST00000003645.8	Ercc1	ENSMUSG0000003549	excision repair cross-complementing rodent repair deficiency, complementation group 1 Source MGI Symbol Acc MGI 95412
B04	SBM0850014	ENSMUST00000062831.15	Ercc2	ENSMUSG0000030400	excision repair cross-complementing rodent repair deficiency, complementation group 2 Source MGI Symbol Acc MGI 95413
B05	SBM0757944	ENSMUST00000129023.1	Ercc3	ENSMUSG0000024382	excision repair cross-complementing rodent repair deficiency, complementation group 3 Source MGI Symbol Acc MGI 95414
B06	SBM0688605	ENSMUST00000138527.1	Ercc4	ENSMUSG0000022545	excision repair cross-complementing rodent repair deficiency, complementation group 4 Source MGI Symbol Acc MGI 1354163
B07	SBM0968908	ENSMUST00000131177.7	Ercc5	ENSMUSG0000026048	excision repair cross-complementing rodent repair deficiency, complementation group 5 Source MGI Symbol Acc MGI 103582
B08	SBM0954098	ENSMUST00000066807.7	Ercc6	ENSMUSG0000054051	excision repair cross-complementing rodent repair deficiency, complementation group 6 Source MGI Symbol Acc MGI 1100494
B09	SBM0957543	ENSMUST00000123138.1	Ercc8	ENSMUSG0000021694	excision repair cross-complementing rodent repair deficiency, complementation group 8 Source MGI Symbol Acc MGI 1919241
B10	SBM0925254	ENSMUST00000193822.5	Exo1	ENSMUSG0000039748	exonuclease 1 Source MGI Symbol Acc MGI 1349427
B11	SBM0765565	ENSMUST00000025651.5	Fen1	ENSMUSG0000024742	flap structure specific endonuclease 1 Source MGI Symbol Acc MGI 102779
B12	SBM0876363	ENSMUST00000123846.8	Lig1	ENSMUSG0000056394	ligase I, DNA, ATP-dependent Source MGI Symbol Acc MGI 101789
C01	SBM0773238	ENSMUST00000172609.1	Lig3	ENSMUSG0000020697	ligase III, DNA, ATP-dependent Source MGI Symbol Acc MGI 109152
C02	SBM1059958	ENSMUST00000170033.1	Lig4	ENSMUSG0000049717	ligase IV, DNA, ATP-dependent Source MGI Symbol Acc MGI 1335098
C03	SBM0832259	ENSMUST00000081510.3	Mgmt	ENSMUSG0000054612	O-6-methylguanine-DNA methyltransferase Source MGI Symbol Acc MGI 96977
C04	SBM0706264	ENSMUST00000134316.1	Mlh1	ENSMUSG0000032498	mutL homolog 1 Source MGI Symbol Acc MGI 101938
C05	SBM0907919	ENSMUST00000166821.7	Mlh3	ENSMUSG0000021245	mutL homolog 3 Source MGI Symbol Acc MGI 1353455
C06	SBM0864274	ENSMUST00000167927.7	Mms19	ENSMUSG0000025159	MMS19 cytosolic iron-sulfur assembly component Source MGI Symbol Acc MGI 1919449
C07	SBM0928248	ENSMUST00000142964.7	Mpg	ENSMUSG0000020287	N-methylpurine-DNA glycosylase Source MGI Symbol Acc MGI 97073
C08	SBM0787147	ENSMUST00000215820.1	Mre11a	ENSMUSG0000031928	MRE11A homolog A, double strand break repair nuclease Source MGI Symbol Acc MGI 1100512
C09	SBM0831857	ENSMUST00000172855.1	Msh2	ENSMUSG0000024151	mutS homolog 2 Source MGI Symbol Acc MGI 101816
C10	SBM1039955	ENSMUST00000185852.6	Msh3	ENSMUSG0000014850	mutS homolog 3 Source MGI Symbol Acc MGI 109519
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0792446	005630.10	Msh4	000005493	mutS homolog 4 Source MGI Symbol Acc MGI 1860077
C12	SBM0944651	ENSMUST00000172536.1	Msh5	ENSMUSG0000007035	mutS homolog 5 Source MGI Symbol Acc MGI 1329021
D01	SBM0907842	ENSMUST00000234756.1	Msh6	ENSMUSG00000005370	mutS homolog 6 Source MGI Symbol Acc MGI 1343961
D02	SBM1049181	ENSMUST00000155346.7	Mutyh	ENSMUSG00000028687	mutY DNA glycosylase Source MGI Symbol Acc MGI 1917853
D03	SBM0735152	ENSMUST00000186410.6	Neil1	ENSMUSG00000032298	nei endonuclease VIII-like 1 (E. coli) Source MGI Symbol Acc MGI 1920024
D04	SBM1027237	ENSMUST00000225841.1	Neil2	ENSMUSG00000035121	nei like 2 (E. coli) Source MGI Symbol Acc MGI 2686058
D05	SBM0893400	ENSMUST00000047768.10	Neil3	ENSMUSG00000039396	nei like 3 (E. coli) Source MGI Symbol Acc MGI 2384588
D06	SBM1068198	ENSMUST00000234635.1	Nth1	ENSMUSG00000041429	nth (endonuclease III)-like 1 (E.coli) Source MGI Symbol Acc MGI 1313275
D07	SBM1066827	ENSMUST00000154350.2	Ogg1	ENSMUSG00000030271	8-oxoguanine DNA-glycosylase 1 Source MGI Symbol Acc MGI 1097693
D08	SBM0750626	ENSMUST00000191639.1	Parp1	ENSMUSG00000026496	poly (ADP-ribose) polymerase family, member 1 Source MGI Symbol Acc MGI 1340806
D09	SBM0881717	ENSMUST00000226880.1	Parp2	ENSMUSG00000036023	poly (ADP-ribose) polymerase family, member 2 Source MGI Symbol Acc MGI 1341112
D10	SBM0964061	ENSMUST00000140029.1	Parp3	ENSMUSG00000023249	poly (ADP-ribose) polymerase family, member 3 Source MGI Symbol Acc MGI 1891258
D11	SBM1072495	ENSMUST00000133358.1	Pms1	ENSMUSG00000026098	PMS1 homolog 1, mismatch repair system component Source MGI Symbol Acc MGI 1202302
D12	SBM0984554	ENSMUST00000110710.9	Pms2	ENSMUSG00000079109	PMS1 homolog2, mismatch repair system component Source MGI Symbol Acc MGI 104288
E01	SBM0794779	ENSMUST00000003044.13	Pnkp	ENSMUSG00000002963	polynucleotide kinase 3 - phosphatase Source MGI Symbol Acc MGI 1891698
E02	SBM0888675	ENSMUST00000033938.6	Polb	ENSMUSG00000031536	polymerase (DNA directed), beta Source MGI Symbol Acc MGI 97740
E03	SBM0975435	ENSMUST00000156518.1	Pold3	ENSMUSG00000030726	polymerase (DNA-directed), delta 3, accessory subunit Source MGI Symbol Acc MGI 1915217
E04	SBM0836579	ENSMUST00000026239.6	Poll	ENSMUSG00000025218	polymerase (DNA directed), lambda Source MGI Symbol Acc MGI 1889000
E05	SBM0998200	ENSMUST00000023352.8	Prkdc	ENSMUSG00000022672	protein kinase, DNA activated, catalytic polypeptide Source MGI Symbol Acc MGI 104779
E06	SBM0947079	ENSMUST00000077088.10	Rad18	ENSMUSG00000030254	RAD18 E3 ubiquitin protein ligase Source MGI Symbol Acc MGI 1890476
E07	SBM0870390	ENSMUST00000226529.1	Rad21	ENSMUSG00000022314	RAD21 cohesin complex component Source MGI Symbol Acc MGI 108016
E08	SBM1041817	ENSMUST00000003911.12	Rad23a	ENSMUSG00000003813	RAD23 homolog A, nucleotide excision repair protein Source MGI Symbol Acc MGI 105126
E09	SBM0728335	ENSMUST00000127266.1	Rad23b	ENSMUSG00000028426	RAD23 homolog B, nucleotide excision repair protein Source MGI Symbol Acc MGI 105128
E10	SBM0935165	ENSMUST00000126121.1	Rad50	ENSMUSG00000020380	RAD50 double strand break repair protein Source MGI Symbol Acc MGI 109292
E11	SBM0702001	ENSMUST00000110828.1	Rad51	ENSMUSG00000027323	RAD51 recombinase Source MGI Symbol Acc MGI 97890
E12	SBM0696860	ENSMUST00000129400.1	Rad51c	ENSMUSG0000007646	RAD51 paralog C Source MGI Symbol Acc MGI 2150020
F01	SBM0876551	ENSMUST00000218039.2	Rad51b	ENSMUSG00000059060	RAD51 paralog B Source MGI Symbol Acc MGI 1099436
F02	SBM0884363	ENSMUST00000135963.7	Rad51d	ENSMUSG00000018841	RAD51 paralog D Source MGI Symbol Acc MGI 1261809
F03	SBM0882006	ENSMUST00000032269.11	Rad52	ENSMUSG00000030166	RAD52 homolog, DNA repair protein Source MGI Symbol Acc MGI 101949
F04	SBM1009542	ENSMUST00000102704.3	Rad54l	ENSMUSG00000028702	RAD54 like (S. cerevisiae) Source MGI Symbol Acc MGI 894697
F05	SBM0900035	ENSMUST00000172732.7	Rfc1	ENSMUSG00000029191	replication factor C (activator 1) 1 Source MGI Symbol Acc MGI 97891
F06	SBM1051303	ENSMUST00000135770.7	Rpa1	ENSMUSG00000000751	replication protein A1 Source MGI Symbol Acc MGI 1915525
F07	SBM1080371	ENSMUST00000012627.4	Rpa3	ENSMUSG00000012483	replication protein A3 Source MGI Symbol Acc MGI 1915490
F08	SBM1000108	ENSMUST00000130115.1	Slk	ENSMUSG00000025060	STE20-like kinase Source MGI Symbol Acc MGI 103241
F09	SBM0922402	ENSMUST00000064067.8	Smug1	ENSMUSG00000036061	single-strand selective monofunctional uracil DNA glycosylase Source MGI Symbol Acc MGI 1918976
F10	SBM0807960	ENSMUST00000145370.7	Tdg	ENSMUSG00000034674	thymine DNA glycosylase Source MGI Symbol Acc MGI 108247

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1045636	ENSMUST0000002891.10	Top3a	ENSMUSG0000002814	topoisomerase (DNA) III alpha Source MGI Symbol Acc MGI 1197527
F12	SBM0845311	ENSMUST00000023465.15	Top3b	ENSMUSG00000022779	topoisomerase (DNA) III beta Source MGI Symbol Acc MGI 1333803
G01	SBM1045779	ENSMUST000000112053.1	Trex1	ENSMUSG00000049734	three prime repair exonuclease 1 Source MGI Symbol Acc MGI 1328317
G02	SBM0820363	ENSMUST00000031587.12	Ung	ENSMUSG00000029591	uracil DNA glycosylase Source MGI Symbol Acc MGI 109352
G03	SBM0822169	ENSMUST000000159235.1	Xab2	ENSMUSG0000019470	XPA binding protein 2 Source MGI Symbol Acc MGI 1914689
G04	SBM0953059	ENSMUST00000058232.10	Xpa	ENSMUSG00000028329	xeroderma pigmentosum, complementation group A Source MGI Symbol Acc MGI 99135
G05	SBM0993944	ENSMUST000000206476.1	Xpc	ENSMUSG00000030094	xeroderma pigmentosum, complementation group C Source MGI Symbol Acc MGI 103557
G06	SBM0836371	ENSMUST000000205573.1	Xrcc1	ENSMUSG00000051768	X-ray repair complementing defective repair in Chinese hamster cells 1 Source MGI Symbol Acc MGI 99137
G07	SBM1037599	ENSMUST000000134972.2	Xrcc2	ENSMUSG00000028933	X-ray repair complementing defective repair in Chinese hamster cells 2 Source MGI Symbol Acc MGI 1927345
G08	SBM1034452	ENSMUST000000021715.5	Xrcc3	ENSMUSG00000021287	X-ray repair complementing defective repair in Chinese hamster cells 3 Source MGI Symbol Acc MGI 1921585
G09	SBM1030169	ENSMUST000000161396.1	Xrcc4	ENSMUSG00000021615	X-ray repair complementing defective repair in Chinese hamster cells 4 Source MGI Symbol Acc MGI 1333799
G10	SBM0879017	ENSMUST000000027379.8	Xrcc5	ENSMUSG00000026187	X-ray repair complementing defective repair in Chinese hamster cells 5 Source MGI Symbol Acc MGI 104517
G11	SBM0783568	ENSMUST000000164779.1	Xrcc6	ENSMUSG00000022471	X-ray repair complementing defective repair in Chinese hamster cells 6 Source MGI Symbol Acc MGI 95606
G12	SBM0755535	ENSMUST000000168520.2	Atp23	ENSMUSG00000025436	ATP23 metalloproteinase and ATP synthase assembly factor homolog Source MGI Symbol Acc MGI 1916984
H01	SBM1220560	ENSMUST000000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST000000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST000000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST000000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST000000166469.7	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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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