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

Mouse DNA Repair

Cat. no. 249955 UPMM-042ZR

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Apex1	Apex2	Atm	Atr	Atxn3	Brca1	Brca2	Brip1	Ccnh	Ccno	Cdk7	Ddb1
B	Ddb2	Dmc1	Ercc1	Ercc2	Ercc3	Ercc4	Ercc5	Ercc6	Ercc8	Exo1	Fen1	Lig1
C	Lig3	Lig4	Mgmt	Mlh1	Mlh3	Mms19	Mpg	Mre11a	Msh2	Msh3	Msh4	Msh5
D	Msh6	Mutyh	Neil1	Neil2	Neil3	Nthl1	Ogg1	Parp1	Parp2	Parp3	Pms1	Pms2
E	Pnkp	Polb	Pold3	Poll	Prkdc	Rad18	Rad21	Rad23a	Rad23b	Rad50	Rad51	Rad51c
F	Rad51b	Rad51d	Rad52	Rad54l	Rfc1	Rpa1	Rpa3	Slk	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 Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM0639545	ENSMUST00000136753.7	Apex1	ENSMUSG00000035960	apurinic/apyrimidinic endonuclease 1 Source MGI Symbol Acc MGI 88042
A02	UPFM0666765	ENSMUST00000112720.7	Apex2	ENSMUSG00000025269	apurinic/apyrimidinic endonuclease 2 Source MGI Symbol Acc MGI 1924872
A03	UPFM0708773	ENSMUST00000150244.1	Atm	ENSMUSG00000034218	ataxia telangiectasia mutated Source MGI Symbol Acc MGI 107202
A04	UPFM0920400	ENSMUST00000185473.6	Atr	ENSMUSG00000032409	ataxia telangiectasia and Rad3 related Source MGI Symbol Acc MGI 108028
A05	UPFM0679727	ENSMUST00000160251.7	Atxn3	ENSMUSG00000021189	ataxin 3 Source MGI Symbol Acc MGI 1099442
A06	UPFM0989907	ENSMUST00000156843.1	Brca1	ENSMUSG00000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
A07	UPFM0774522	ENSMUST00000201226.1	Brca2	ENSMUSG00000041147	breast cancer 2, early onset Source MGI Symbol Acc MGI 109337
A08	UPFM1005314	ENSMUST00000149748.7	Brip1	ENSMUSG00000034329	BRCA1 interacting protein C-terminal helicase 1 Source MGI Symbol Acc MGI 2442836
A09	UPFM0939658	ENSMUST00000022030.10	Ccnh	ENSMUSG00000021548	cyclin H Source MGI Symbol Acc MGI 1913921
A10	UPFM0662150	ENSMUST00000224100.1	Ccno	ENSMUSG00000042417	cyclin O Source MGI Symbol Acc MGI 2145534
A11	UPFM0895588	ENSMUST00000091299.7	Cdk7	ENSMUSG00000069089	cyclin-dependent kinase 7 Source MGI Symbol Acc MGI 102956
A12	UPFM0742344	ENSMUST00000237337.1	Ddb1	ENSMUSG00000024740	damage specific DNA binding protein 1 Source MGI Symbol Acc MGI 1202384
B01	UPFM0801365	ENSMUST00000152277.7	Ddb2	ENSMUSG00000002109	damage specific DNA binding protein 2 Source MGI Symbol Acc MGI 1355314
B02	UPFM0873185	ENSMUST00000229408.1	Dmc1	ENSMUSG00000022429	DNA meiotic recombinase 1 Source MGI Symbol Acc MGI 105393
B03	UPFM0838350	ENSMUST00000160909.1	Ercc1	ENSMUSG00000003549	excision repair cross-complementing rodent repair deficiency, complementation group 1 Source MGI Symbol Acc MGI 95412
B04	UPFM0928941	ENSMUST00000128167.1	Ercc2	ENSMUSG00000030400	excision repair cross-complementing rodent repair deficiency, complementation group 2 Source MGI Symbol Acc MGI 95413
B05	UPFM0892970	ENSMUST00000129023.1	Ercc3	ENSMUSG00000024382	excision repair cross-complementing rodent repair deficiency, complementation group 3 Source MGI Symbol Acc MGI 95414
B06	UPFM0777481	ENSMUST00000023206.13	Ercc4	ENSMUSG00000022545	excision repair cross-complementing rodent repair deficiency, complementation group 4 Source MGI Symbol Acc MGI 1354163
B07	UPFM0998031	ENSMUST00000139510.7	Ercc5	ENSMUSG00000026048	excision repair cross-complementing rodent repair deficiency, complementation group 5 Source MGI Symbol Acc MGI 103582
B08	UPFM0756075	ENSMUST00000066807.7	Ercc6	ENSMUSG00000054051	excision repair cross-complementing rodent repair deficiency, complementation group 6 Source MGI Symbol Acc MGI 1100494
B09	UPFM1005090	ENSMUST00000123182.7	Ercc8	ENSMUSG00000021694	excision repaiross-complementing rodent repair deficiency, complementation group 8 Source MGI Symbol Acc MGI 1919241
B10	UPFM0820144	ENSMUST00000193822.5	Exo1	ENSMUSG00000039748	exonuclease 1 Source MGI Symbol Acc MGI 1349427
B11	UPFM0669922	ENSMUST00000116542.8	Fen1	ENSMUSG00000024742	flap structure specific endonuclease 1 Source MGI Symbol Acc MGI 102779
B12	UPFM0804082	ENSMUST00000148471.8	Lig1	ENSMUSG00000056394	ligase I, DNA, ATP-dependent Source MGI Symbol Acc MGI 101789
C01	UPFM0856173	ENSMUST00000080461.11	Lig3	ENSMUSG00000020697	ligase III, DNA, ATP-dependent Source MGI Symbol Acc MGI 109152
C02	UPFM0898844	ENSMUST00000095476.5	Lig4	ENSMUSG00000049717	ligase IV, DNA, ATP-dependent Source MGI Symbol Acc MGI 1335098
C03	UPFM0711011	ENSMUST00000081510.3	Mgmt	ENSMUSG00000054612	O-6-methylguanine-DNA methyltransferase Source MGI Symbol Acc MGI 96977
C04	UPFM0845044	ENSMUST00000135695.1	Mlh1	ENSMUSG00000032498	mutL homolog 1 Source MGI Symbol Acc MGI 101938
C05	UPFM0621696	ENSMUST00000223230.1	Mlh3	ENSMUSG00000021245	mutL homolog 3 Source MGI Symbol Acc MGI 1353455
C06	UPFM0951543	ENSMUST00000167927.7	Mms19	ENSMUSG00000025159	MMS19 cytosolic iron-sulfur assembly component Source MGI Symbol Acc MGI 1919449
C07	UPFM0707797	ENSMUST00000142964.7	Mpg	ENSMUSG00000020287	N-methylpurine-DNA glycosylase Source MGI Symbol Acc MGI 97073
C08	UPFM1126318	ENSMUST00000215820.1	Mre11a	ENSMUSG00000031928	MRE11A homolog A, double strand break repair nuclease Source MGI Symbol Acc MGI 1100512
C09	UPFM0982877	ENSMUST00000173097.7	Msh2	ENSMUSG00000024151	mutS homolog 2 Source MGI Symbol Acc MGI 101816
C10	UPFM0907842	ENSMUST00000191509.6	Msh3	ENSMUSG00000014850	mutS homolog 3 Source MGI Symbol Acc MGI 109519
	UPFM068931	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	9	190449.1	Msh4	000005493	mutS homolog 4 Source MGI Symbol Acc MGI 1860077
C12	UPFM095492 0	ENSMUST00000 173685.7	Msh5	ENSMUSG00 000007035	mutS homolog 5 Source MGI Symbol Acc MGI 1329021
D01	UPFM094977 6	ENSMUST00000 005503.4	Msh6	ENSMUSG00 000005370	mutS homolog 6 Source MGI Symbol Acc MGI 1343961
D02	UPFM087977 2	ENSMUST00000 124857.7	Mutyh	ENSMUSG00 000028687	mutY DNA glycosylase Source MGI Symbol Acc MGI 1917853
D03	UPFM062410 6	ENSMUST00000 034842.4	Neil1	ENSMUSG00 000032298	nei endonuclease VIII-like 1 (E. coli) Source MGI Symbol Acc MGI 1920024
D04	UPFM086252 1	ENSMUST00000 225841.1	Neil2	ENSMUSG00 000035121	nei like 2 (E. coli) Source MGI Symbol Acc MGI 2686058
D05	UPFM065387 1	ENSMUST00000 149053.7	Neil3	ENSMUSG00 000039396	nei like 3 (E. coli) Source MGI Symbol Acc MGI 2384588
D06	UPFM076269 0	ENSMUST00000 234308.1	Nthl1	ENSMUSG00 000041429	nth (endonuclease III)-like 1 (E.coli) Source MGI Symbol Acc MGI 1313275
D07	UPFM073419 4	ENSMUST00000 129871.1	Ogg1	ENSMUSG00 000030271	8-oxoguanine DNA-glycosylase 1 Source MGI Symbol Acc MGI 1097693
D08	UPFM093642 0	ENSMUST00000 193238.1	Parp1	ENSMUSG00 000026496	poly (ADP-ribose) polymerase family, member 1 Source MGI Symbol Acc MGI 1340806
D09	UPFM087358 4	ENSMUST00000 036126.6	Parp2	ENSMUSG00 000036023	poly (ADP-ribose) polymerase family, member 2 Source MGI Symbol Acc MGI 1341112
D10	UPFM099436 8	ENSMUST00000 140029.1	Parp3	ENSMUSG00 000023249	poly (ADP-ribose) polymerase family, member 3 Source MGI Symbol Acc MGI 1891258
D11	UPFM084665 3	ENSMUST00000 133358.1	Pms1	ENSMUSG00 000026098	PMS1 homolog 1, mismatch repair system component Source MGI Symbol Acc MGI 1202302
D12	UPFM089834 5	ENSMUST00000 110710.9	Pms2	ENSMUSG00 000079109	PMS1 homolog2, mismatch repair system component Source MGI Symbol Acc MGI 104288
E01	UPFM081878 0	ENSMUST00000 107876.7	Pnkp	ENSMUSG00 000002963	polynucleotide kinase 3 - phosphatase Source MGI Symbol Acc MGI 1891698
E02	UPFM080561 1	ENSMUST00000 033938.6	Polb	ENSMUSG00 000031536	polymerase (DNA directed), beta Source MGI Symbol Acc MGI 97740
E03	UPFM084582 8	ENSMUST00000 130413.7	Pold3	ENSMUSG00 000030726	polymerase (DNA-directed), delta 3, accessory subunit Source MGI Symbol Acc MGI 1915217
E04	UPFM096917 5	ENSMUST00000 026239.6	Poll	ENSMUSG00 000025218	polymerase (DNA directed), lambda Source MGI Symbol Acc MGI 1889000
E05	UPFM072596 0	ENSMUST00000 182134.1	Prkdc	ENSMUSG00 000022672	protein kinase, DNA activated, catalytic polypeptide Source MGI Symbol Acc MGI 104779
E06	UPFM091573 8	ENSMUST00000 068487.11	Rad18	ENSMUSG00 000030254	RAD18 E3 ubiquitin protein ligase Source MGI Symbol Acc MGI 1890476
E07	UPFM089310 8	ENSMUST00000 022927.10	Rad21	ENSMUSG00 000022314	RAD21 cohesin complex component Source MGI Symbol Acc MGI 108016
E08	UPFM075908 8	ENSMUST00000 109761.8	Rad23a	ENSMUSG00 000003813	RAD23 homolog A, nucleotide excision repair protein Source MGI Symbol Acc MGI 105126
E09	UPFM087252 7	ENSMUST00000 030134.8	Rad23b	ENSMUSG00 000028426	RAD23 homolog B, nucleotide excision repair protein Source MGI Symbol Acc MGI 105128
E10	UPFM083632 9	ENSMUST00000 128483.7	Rad50	ENSMUSG00 000020380	RAD50 double strand break repair protein Source MGI Symbol Acc MGI 109292
E11	UPFM093244 8	ENSMUST00000 110828.1	Rad51	ENSMUSG00 000027323	RAD51 recombinase Source MGI Symbol Acc MGI 97890
E12	UPFM083059 1	ENSMUST00000 129400.1	Rad51c	ENSMUSG00 000007646	RAD51 paralog C Source MGI Symbol Acc MGI 2150020
F01	UPFM100252 4	ENSMUST00000 171210.2	Rad51b	ENSMUSG00 000059060	RAD51 paralog B Source MGI Symbol Acc MGI 1099436
F02	UPFM064040 4	ENSMUST00000 146053.7	Rad51d	ENSMUSG00 000018841	RAD51 paralog D Source MGI Symbol Acc MGI 1261809
F03	UPFM087390 8	ENSMUST00000 032269.11	Rad52	ENSMUSG00 000030166	RAD52 homolog, DNA repair protein Source MGI Symbol Acc MGI 101949
F04	UPFM096737 0	ENSMUST00000 102705.9	Rad54l	ENSMUSG00 000028702	RAD54 like (S. cerevisiae) Source MGI Symbol Acc MGI 894697
F05	UPFM070890 6	ENSMUST00000 204965.2	Rfc1	ENSMUSG00 000029191	replication factor C (activator 1) 1 Source MGI Symbol Acc MGI 97891
F06	UPFM090455 1	ENSMUST00000 135770.7	Rpa1	ENSMUSG00 000000751	replication protein A1 Source MGI Symbol Acc MGI 1915525
F07	UPFM064713 0	ENSMUST00000 012627.4	Rpa3	ENSMUSG00 000012483	replication protein A3 Source MGI Symbol Acc MGI 1915490
F08	UPFM081236 3	ENSMUST00000 026043.11	Slk	ENSMUSG00 000025060	STE20-like kinase Source MGI Symbol Acc MGI 103241
F09	UPFM088785 1	ENSMUST00000 231198.1	Smug1	ENSMUSG00 000036061	single-strand selective monofunctional uracil DNA glycosylase Source MGI Symbol Acc MGI 1918976
F10	UPFM093879 6	ENSMUST00000 145370.7	Tdg	ENSMUSG00 000034674	thymine DNA glycosylase Source MGI Symbol Acc MGI 108247

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM0775601	ENSMUST00000002891.10	Top3a	ENSMUSG00000002814	topoisomerase (DNA) III alpha Source MGI Symbol Acc MGI 1197527
F12	UPFM0923415	ENSMUST00000023465.15	Top3b	ENSMUSG00000022779	topoisomerase (DNA) III beta Source MGI Symbol Acc MGI 1333803
G01	UPFM0933561	ENSMUST00000112053.1	Trex1	ENSMUSG00000049734	three prime repair exonuclease 1 Source MGI Symbol Acc MGI 1328317
G02	UPFM0979636	ENSMUST00000112275.7	Ung	ENSMUSG00000029591	uracil DNA glycosylase Source MGI Symbol Acc MGI 109352
G03	UPFM0789073	ENSMUST00000159235.1	Xab2	ENSMUSG00000019470	XPA binding protein 2 Source MGI Symbol Acc MGI 1914689
G04	UPFM0877903	ENSMUST00000142380.1	Xpa	ENSMUSG00000028329	xeroderma pigmentosum, complementation group A Source MGI Symbol Acc MGI 99135
G05	UPFM0637469	ENSMUST00000150279.2	Xpc	ENSMUSG00000030094	xeroderma pigmentosum, complementation group C Source MGI Symbol Acc MGI 103557
G06	UPFM0987823	ENSMUST00000205573.1	Xrcc1	ENSMUSG00000051768	X-ray repair complementing defective repair in Chinese hamster cells 1 Source MGI Symbol Acc MGI 99137
G07	UPFM0791676	ENSMUST00000134972.2	Xrcc2	ENSMUSG00000028933	X-ray repair complementing defective repair in Chinese hamster cells 2 Source MGI Symbol Acc MGI 1927345
G08	UPFM0922377	ENSMUST00000124064.7	Xrcc3	ENSMUSG00000021287	X-ray repair complementing defective repair in Chinese hamster cells 3 Source MGI Symbol Acc MGI 1921585
G09	UPFM0940704	ENSMUST00000159199.7	Xrcc4	ENSMUSG00000021615	X-ray repair complementing defective repair in Chinese hamster cells 4 Source MGI Symbol Acc MGI 1333799
G10	UPFM0834694	ENSMUST00000027379.8	Xrcc5	ENSMUSG00000026187	X-ray repair complementing defective repair in Chinese hamster cells 5 Source MGI Symbol Acc MGI 104517
G11	UPFM0634671	ENSMUST00000069530.12	Xrcc6	ENSMUSG00000022471	X-ray repair complementing defective repair in Chinese hamster cells 6 Source MGI Symbol Acc MGI 95606
G12	UPFM0668030	ENSMUST00000220051.1	Atp23	ENSMUSG00000025436	ATP23 metallopeptidase and ATP synthase assembly factor homolog Source MGI Symbol Acc MGI 1916984
H01	UPFM1132946	ENSMUST00000163829.1	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM1132947	ENSMUST00000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM1132948	ENSMUST00000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM1132949	ENSMUST00000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM1132950	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG00000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM1126609	UPL_MGDC	MGDC	UPL_MGDC	Mouse 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 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 Probe RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 µl QuantiNova Probe RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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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