

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

Mouse MAP Kinase Signaling Pathway

Cat. no. 249950 SBMM-061ZR

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 (Rotor-Gene): QuantiNova LNA 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 PCR System Handbook at www.qiagen.com for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Araf	Aif2	Ccna1	Ccna2	Ccnb1	Ccnb2	Ccnd1	Ccnd2	Ccnd3	Ccne1	Cdc42	Cdk2
B	Cdk4	Cdk6	Cdkn1a	Cdkn1b	Cdkn1c	Cdkn2a	Cdkn2b	Cdkn2c	Cdkn2d	Chuk	Col1a1	Creb1
C	Crebbp	Dlk1	E2f1	Egfr	Egr1	Elk1	Ets1	Ets2	Fos	Grb2	Hras	Hspa5
D	Hspb1	Jun	Kcnn1	Kras	Ksr1	Lamtor3	Map2k1	Map2k2	Map2k3	Map2k4	Map2k5	Map2k6
E	Map2k7	Map3k1	Map3k2	Map3k3	Map3k4	Map4k1	Mapk1	Mapk10	Mapk11	Mapk12	Mapk13	Mapk14
F	Mapk3	Mapk6	Mapk7	Mapk8	Mapk8ip1	Mapk8ip2	Mapk8ip3	Mapk9	Mapkapk2	Mapkapk5	Max	Mef2c
G	Mknk1	Mos	Myc	Nfatc4	Nras	Pal1	Rac1	Raf1	Rb1	Sfn	Smad4	Trp53
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	SBM0848565	ENSMUST00000152955.7	Araf	ENSMUSG0000001127	Araf proto-oncogene, serine/threonine kinase Source MGI Symbol Acc MGI 88065
A02	SBM1035001	ENSMUST00000112007.7	Ahf2	ENSMUSG00000027104	activating transcription factor 2 Source MGI Symbol Acc MGI 109349
A03	SBM0877611	ENSMUST00000197238.4	Ccna1	ENSMUSG00000027793	cyclin A1 Source MGI Symbol Acc MGI 108042
A04	SBM0908421	ENSMUST00000029270.9	Ccna2	ENSMUSG00000027715	cyclin A2 Source MGI Symbol Acc MGI 108069
A05	SBM0677113	ENSMUST00000147790.1	Ccnb1	ENSMUSG00000041431	cyclin B1 Source MGI Symbol Acc MGI 88302
A06	SBM0976587	ENSMUST00000034742.7	Ccnb2	ENSMUSG00000032218	cyclin B2 Source MGI Symbol Acc MGI 88311
A07	SBM0706150	ENSMUST00000093962.4	Ccnd1	ENSMUSG00000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
A08	SBM0977018	ENSMUST00000201066.1	Ccnd2	ENSMUSG0000000184	cyclin D2 Source MGI Symbol Acc MGI 88314
A09	SBM0907619	ENSMUST00000182935.7	Ccnd3	ENSMUSG00000034165	cyclin D3 Source MGI Symbol Acc MGI 88315
A10	SBM0866938	ENSMUST00000124979.2	Ccne1	ENSMUSG0000002068	cyclin E1 Source MGI Symbol Acc MGI 88316
A11	SBM1071094	ENSMUST00000030417.9	Cdc42	ENSMUSG0000006699	cell division cycle 42 Source MGI Symbol Acc MGI 106211
A12	SBM1030284	ENSMUST00000219601.1	Cdk2	ENSMUSG00000025358	cyclin-dependent kinase 2 Source MGI Symbol Acc MGI 104772
B01	SBM0702559	ENSMUST00000120226.7	Cdk4	ENSMUSG0000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
B02	SBM0726060	ENSMUST00000165117.7	Cdk6	ENSMUSG00000040274	cyclin-dependent kinase 6 Source MGI Symbol Acc MGI 1277162
B03	SBM1034022	ENSMUST00000023829.7	Cdkn1a	ENSMUSG00000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
B04	SBM1006924	ENSMUST00000067327.10	Cdkn1b	ENSMUSG0000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
B05	SBM0762603	ENSMUST00000208137.1	Cdkn1c	ENSMUSG00000037664	cyclin-dependent kinase inhibitor 1C (P57) Source MGI Symbol Acc MGI 104564
B06	SBM0998051	ENSMUST00000060501.4	Cdkn2a	ENSMUSG00000044303	cyclin dependent kinase inhibitor 2A Source MGI Symbol Acc MGI 104738
B07	SBM1002560	ENSMUST00000097981.5	Cdkn2b	ENSMUSG00000073802	cyclin dependent kinase inhibitor 2B Source MGI Symbol Acc MGI 104737
B08	SBM1063743	ENSMUST00000063531.4	Cdkn2c	ENSMUSG00000028551	cyclin dependent kinase inhibitor 2C Source MGI Symbol Acc MGI 105388
B09	SBM0921509	ENSMUST00000215619.1	Cdkn2d	ENSMUSG00000096472	cyclin dependent kinase inhibitor 2D Source MGI Symbol Acc MGI 105387
B10	SBM1034080	ENSMUST00000026217.10	Chuk	ENSMUSG00000025199	conserved helix-loop-helix ubiquitous kinase Source MGI Symbol Acc MGI 99484
B11	SBM0911341	ENSMUST00000139974.1	Col1a1	ENSMUSG0000001506	collagen, type I, alpha 1 Source MGI Symbol Acc MGI 88467
B12	SBM0735214	ENSMUST00000188855.6	Creb1	ENSMUSG00000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
C01	SBM0926551	ENSMUST00000205765.1	Crebbp	ENSMUSG00000022521	CREB binding protein Source MGI Symbol Acc MGI 1098280
C02	SBM0770323	ENSMUST00000109844.10	Dlk1	ENSMUSG00000040856	delta like non-canonical Notch ligand 1 Source MGI Symbol Acc MGI 94900
C03	SBM0678575	ENSMUST00000000894.5	E2f1	ENSMUSG00000027490	E2F transcription factor 1 Source MGI Symbol Acc MGI 101941
C04	SBM1033270	ENSMUST00000020329.12	Egfr	ENSMUSG00000020122	epidermal growth factor receptor Source MGI Symbol Acc MGI 95294
C05	SBM0782056	ENSMUST00000064795.5	Egr1	ENSMUSG00000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
C06	SBM0783393	ENSMUST00000009550.13	Elk1	ENSMUSG0000009406	ELK1, member of ETS oncogene family Source MGI Symbol Acc MGI 101833
C07	SBM0897035	ENSMUST00000184887.1	Ets1	ENSMUSG00000032035	E26 avian leukemia oncogene 1, 5 domain Source MGI Symbol Acc MGI 95455
C08	SBM0823296	ENSMUST00000023612.16	Ets2	ENSMUSG00000022895	E26 avian leukemia oncogene 2, 3 domain Source MGI Symbol Acc MGI 95456
C09	ENSMUST00000134311.1	Fos	ENSMUSG00000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574	
C10	SBM1054562	ENSMUST00000106497.7	Grb2	ENSMUSG00000059923	growth factor receptor bound protein 2 Source MGI Symbol Acc MGI 95805
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0815785	097957.10	Hras	000025499	Harvey rat sarcoma virus oncogene Source MGI Symbol Acc MGI 96224
C12	SBM1001113	ENSMUST00000145466.1	Hspa5	ENSMUSG0000026864	heat shock protein 5 Source MGI Symbol Acc MGI 95835
D01	SBM1021618	ENSMUST00000005077.6	Hspb1	ENSMUSG0000004951	heat shock protein 1 Source MGI Symbol Acc MGI 96240
D02	SBM1045409	ENSMUST00000107094.1	Jun	ENSMUSG0000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
D03	SBM0854186	ENSMUST00000212611.1	Kcnn1	ENSMUSG0000002908	potassium intermediate/small conductance calcium-activated channel, subfamily N, member 1 Source MGI Symbol Acc MGI 1933993
D04	SBM1059793	ENSMUST00000203147.2	Kras	ENSMUSG0000030265	Kirsten rat sarcoma viral oncogene homolog Source MGI Symbol Acc MGI 96680
D05	SBM0905409	ENSMUST00000208969.1	Ksr1	ENSMUSG0000018334	kinase suppressor of ras 1 Source MGI Symbol Acc MGI 105051
D06	SBM0701398	ENSMUST00000196632.4	Lamtor3	ENSMUSG00000091512	late endosomal/lysosomal adaptor, MAPK and MTOR activator 3 Source MGI Symbol Acc MGI 1929467
D07	SBM1025120	ENSMUST00000005066.8	Map2k1	ENSMUSG0000004936	mitogen-activated protein kinase kinase 1 Source MGI Symbol Acc MGI 1346866
D08	SBM0983178	ENSMUST00000136743.1	Map2k2	ENSMUSG0000035027	mitogen-activated protein kinase kinase 2 Source MGI Symbol Acc MGI 1346867
D09	SBM0905391	ENSMUST00000130269.1	Map2k3	ENSMUSG0000018932	mitogen-activated protein kinase kinase 3 Source MGI Symbol Acc MGI 1346868
D10	SBM1084723	ENSMUST00000046963.9	Map2k4	ENSMUSG0000033552	mitogen-activated protein kinase kinase 4 Source MGI Symbol Acc MGI 1346869
D11	SBM0705884	ENSMUST00000034920.10	Map2k5	ENSMUSG0000058444	mitogen-activated protein kinase kinase 5 Source MGI Symbol Acc MGI 1346345
D12	SBM0854481	ENSMUST00000133920.1	Map2k6	ENSMUSG0000020623	mitogen-activated protein kinase kinase 6 Source MGI Symbol Acc MGI 1346870
E01	SBM0763141	ENSMUST00000129866.7	Map2k7	ENSMUSG0000002948	mitogen-activated protein kinase kinase 7 Source MGI Symbol Acc MGI 1346871
E02	SBM0811680	ENSMUST00000145055.1	Map3k1	ENSMUSG0000021754	mitogen-activated protein kinase kinase kinase 1 Source MGI Symbol Acc MGI 1346872
E03	SBM0772766	ENSMUST00000096575.4	Map3k2	ENSMUSG0000024383	mitogen-activated protein kinase kinase kinase 2 Source MGI Symbol Acc MGI 1346873
E04	SBM0956959	ENSMUST00000124449.1	Map3k3	ENSMUSG0000020700	mitogen-activated protein kinase kinase kinase 3 Source MGI Symbol Acc MGI 1346874
E05	SBM0796277	ENSMUST00000232931.1	Map3k4	ENSMUSG0000014426	mitogen-activated protein kinase kinase kinase 4 Source MGI Symbol Acc MGI 1346875
E06	SBM0841614	ENSMUST00000207185.1	Map4k1	ENSMUSG0000037337	mitogen-activated protein kinase kinase kinase kinase 1 Source MGI Symbol Acc MGI 1346882
E07	SBM0800614	ENSMUST00000231821.1	Mapk1	ENSMUSG0000063358	mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858
E08	SBM0977079	ENSMUST00000112848.7	Mapk10	ENSMUSG0000046709	mitogen-activated protein kinase 10 Source MGI Symbol Acc MGI 1346863
E09	SBM1049624	ENSMUST00000230634.1	Mapk11	ENSMUSG0000053137	mitogen-activated protein kinase 11 Source MGI Symbol Acc MGI 1338024
E10	SBM1061348	ENSMUST00000230509.1	Mapk12	ENSMUSG0000022610	mitogen-activated protein kinase 12 Source MGI Symbol Acc MGI 1353438
E11	SBM1018712	ENSMUST00000233051.1	Mapk13	ENSMUSG0000004864	mitogen-activated protein kinase 13 Source MGI Symbol Acc MGI 1346864
E12	SBM0683456	ENSMUST00000114754.7	Mapk14	ENSMUSG0000053436	mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865
F01	SBM0856900	ENSMUST00000206272.1	Mapk3	ENSMUSG0000063065	mitogen-activated protein kinase 3 Source MGI Symbol Acc MGI 1346859
F02	SBM0794674	ENSMUST00000049355.10	Mapk6	ENSMUSG0000042688	mitogen-activated protein kinase 6 Source MGI Symbol Acc MGI 1354946
F03	SBM0692156	ENSMUST00000108714.1	Mapk7	ENSMUSG0000001034	mitogen-activated protein kinase 7 Source MGI Symbol Acc MGI 1346347
F04	SBM0984642	ENSMUST00000132379.1	Mapk8	ENSMUSG0000021936	mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861
F05	SBM1076149	ENSMUST00000149653.1	Mapk8ip1	ENSMUSG0000027223	mitogen-activated protein kinase 8 interacting protein 1 Source MGI Symbol Acc MGI 1309464
F06	SBM0953564	ENSMUST00000023291.5	Mapk8ip2	ENSMUSG0000022619	mitogen-activated protein kinase 8 interacting protein 2 Source MGI Symbol Acc MGI 1926555
F07	SBM0709873	ENSMUST00000146923.7	Mapk8ip3	ENSMUSG0000024163	mitogen-activated protein kinase 8 interacting protein 3 Source MGI Symbol Acc MGI 1353598
F08	SBM1025510	ENSMUST00000144857.7	Mapk9	ENSMUSG0000020366	mitogen-activated protein kinase 9 Source MGI Symbol Acc MGI 1346862
F09	SBM1002236	ENSMUST00000188459.3	Mapkapk2	ENSMUSG0000016528	MAP kinase-activated protein kinase 2 Source MGI Symbol Acc MGI 109298
F10	SBM0958771	ENSMUST00000151352.2	Mapkapk5	ENSMUSG0000029454	MAP kinase-activated protein kinase 5 Source MGI Symbol Acc MGI 1333110

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0734133	ENSMUST00000218640.1	Max	ENSMUSG0000059436	Max protein Source MGI Symbol Acc MGI 96921
F12	SBM0750479	ENSMUST00000199210.4	Mef2c	ENSMUSG0000005583	myocyte enhancer factor 2C Source MGI Symbol Acc MGI 99458
G01	SBM0763710	ENSMUST00000151203.7	Mknk1	ENSMUSG0000028708	MAP kinase-interacting serine/threonine kinase 1 Source MGI Symbol Acc MGI 894316
G02	SBM0936407	ENSMUST00000105158.1	Mos	ENSMUSG0000078365	Moloney sarcoma oncogene Source MGI Symbol Acc MGI 97052
G03	SBM0987162	ENSMUST00000159338.1	Myc	ENSMUSG0000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
G04	SBM0813365	ENSMUST00000226716.1	Nfatc4	ENSMUSG0000023411	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 4 Source MGI Symbol Acc MGI 1920431
G05	SBM0922591	ENSMUST00000196355.4	Nras	ENSMUSG0000027852	neuroblastoma ras oncogene Source MGI Symbol Acc MGI 97376
G06	SBM0746109	ENSMUST00000033040.11	Pak1	ENSMUSG0000030774	p21 (RAC1) activated kinase 1 Source MGI Symbol Acc MGI 1339975
G07	SBM0680406	ENSMUST00000145709.7	Rac1	ENSMUSG0000001847	Rac family small GTPase 1 Source MGI Symbol Acc MGI 97845
G08	SBM0974573	ENSMUST00000124553.3	Raf1	ENSMUSG0000000441	v-raf-leukemia viral oncogene 1 Source MGI Symbol Acc MGI 97847
G09	SBM0795530	ENSMUST00000168495.1	Rb1	ENSMUSG0000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
G10	SBM1012777	ENSMUST00000057311.3	Sfn	ENSMUSG0000047281	stratifin Source MGI Symbol Acc MGI 1891831
G11	SBM1071100	ENSMUST00000114939.1	Smad4	ENSMUSG0000024515	SMAD family member 4 Source MGI Symbol Acc MGI 894293
G12	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG0000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG0000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG0000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG0000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG0000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG0000023944	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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