

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

Mouse Oncogenes & Tumor Suppressor Genes

Cat. no. 249950 SBMM-502ZA

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	Akt1	Apc	Atm	Bax	Bcl2	Bcl2l1	Bcr	Bcrcl	Brccl	Casp8	Ccnd1
B	Cdh1	Cdk4	Cdkn1a	Cdkn2a	Cdkn2b	Cdkn3	Cttnb1	E2f1	Egf	Elk1	ErbB2	Esr1
C	Ets1	Fhit	Fos	Foxd3	Hgf	Hic1	Hras	Igf2r	Jak2	Jun	Junb	Jund
D	Kit	Kitl	Kras	Mcl1	Mdm2	Men1	Met	Mgmt	Mlh1	Mos	Myb	Myc
E	Mycn	Nf1	Nf2	Nfkb1	Nfkb2	Nras	Pik3c2a	Pik3ca	Pml	Prkca	Raf1	Rara
F	Rassf1	Rb1	Rel	Ret	Ros1	Rumx1	Rumx3	S100a4	Serpina5	Sh3pud2a	Smad4	Src
G	Stat3	Stk11	Tgfb1	Tnf	Trp53	Trp73	Tsc1	Vhl	Vhl	Wwax	Xrcc1	Zh2
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	ENSMUSG0000026842	c-abl oncogene 1, non-receptor tyrosine kinase Source MGI Symbol Acc MGI 87859
A02	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG0000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
A03	SBM0782035	ENSMUST00000079362.12	Apc	ENSMUSG0000005871	APC, WNT signaling pathway regulator Source MGI Symbol Acc MGI 88039
A04	SBM0745660	ENSMUST00000150244.1	Atm	ENSMUSG0000034218	ataxia telangiectasia mutated Source MGI Symbol Acc MGI 107202
A05	SBM0740166	ENSMUST00000211615.1	Bax	ENSMUSG0000003873	BCL2-associated X protein Source MGI Symbol Acc MGI 99702
A06	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
A07	SBM0751583	ENSMUST00000134357.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
A08	SBM0945277	ENSMUST00000218057.1	Bcr	ENSMUSG0000009681	breakpoint cluster region Source MGI Symbol Acc MGI 88141
A09	SBM0935779	ENSMUST00000142086.2	Brca1	ENSMUSG0000017146	breast cancer 1, early onset Source MGI Symbol Acc MGI 104537
A10	SBM0807222	ENSMUST00000201226.1	Brca2	ENSMUSG0000041147	breast cancer 2, early onset Source MGI Symbol Acc MGI 109337
A11	SBM0772558	ENSMUST00000027189.14	Casp8	ENSMUSG0000026029	caspase 8 Source MGI Symbol Acc MGI 1261423
A12	SBM0706150	ENSMUST00000093962.4	Ccnd1	ENSMUSG00000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
B01	SBM0815100	ENSMUST00000136580.1	Cdh1	ENSMUSG0000000303	cadherin 1 Source MGI Symbol Acc MGI 88354
B02	SBM0702559	ENSMUST00000120226.7	Cdk4	ENSMUSG00000006728	cyclin-dependent kinase 4 Source MGI Symbol Acc MGI 88357
B03	SBM1034022	ENSMUST00000023829.7	Cdkn1a	ENSMUSG0000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
B04	SBM0998051	ENSMUST00000060501.4	Cdkn2a	ENSMUSG0000044303	cyclin dependent kinase inhibitor 2A Source MGI Symbol Acc MGI 104738
B05	SBM1002560	ENSMUST00000097981.5	Cdkn2b	ENSMUSG00000073802	cyclin dependent kinase inhibitor 2B Source MGI Symbol Acc MGI 104737
B06	SBM0877525	ENSMUST00000067426.5	Cdkn3	ENSMUSG00000037628	cyclin-dependent kinase inhibitor 3 Source MGI Symbol Acc MGI 1919641
B07	SBM1021462	ENSMUST00000007130.14	Ctnnb1	ENSMUSG0000006932	catenin (cadherin associated protein), beta 1 Source MGI Symbol Acc MGI 88276
B08	SBM0678575	ENSMUST00000000894.5	E2f1	ENSMUSG00000027490	E2F transcription factor 1 Source MGI Symbol Acc MGI 101941
B09	SBM1005237	ENSMUST00000197079.4	Egf	ENSMUSG00000028017	epidermal growth factor Source MGI Symbol Acc MGI 95290
B10	SBM0783393	ENSMUST00000009550.13	Elk1	ENSMUSG0000009406	ELK1, member of ETS oncogene family Source MGI Symbol Acc MGI 101833
B11	SBM0761323	ENSMUST00000136032.1	ErbB2	ENSMUSG0000062312	erb-b2 receptor tyrosine kinase 2 Source MGI Symbol Acc MGI 95410
B12	SBM0745819	ENSMUST00000067086.13	Esr1	ENSMUSG0000019768	estrogen receptor 1 (alpha) Source MGI Symbol Acc MGI 1352467
C01	SBM0897035	ENSMUST00000184887.1	Ets1	ENSMUSG0000032035	E26 avian leukemia oncogene 1, 5 domain Source MGI Symbol Acc MGI 95455
C02	SBM0981571	ENSMUST00000161895.7	Fhit	ENSMUSG0000060579	fragile histidine triad gene Source MGI Symbol Acc MGI 1277947
C03	SBM0977461	ENSMUST00000134311.1	Fos	ENSMUSG0000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
C04	SBM0904577	ENSMUST00000087285.4	Foxd3	ENSMUSG0000067261	forkhead box D3 Source MGI Symbol Acc MGI 1347473
C05	SBM0858725	ENSMUST00000200189.4	Hgf	ENSMUSG0000028864	hepatocyte growth factor Source MGI Symbol Acc MGI 96079
C06	SBM0795913	ENSMUST00000055619.4	Hic1	ENSMUSG0000043099	hypermethylated in cancer 1 Source MGI Symbol Acc MGI 1338010
C07	SBM0815785	ENSMUST00000097957.10	Hras	ENSMUSG0000025499	Harvey rat sarcoma virus oncogene Source MGI Symbol Acc MGI 96224
C08	SBM0777957	ENSMUST00000161738.1	Igf2r	ENSMUSG0000023830	insulin-like growth factor 2 receptor Source MGI Symbol Acc MGI 96435
C09	SBM0844988	ENSMUST00000065796.9	Jak2	ENSMUSG0000024789	Janus kinase 2 Source MGI Symbol Acc MGI 96629
C10	SBM1045409	ENSMUST00000107094.1	Jun	ENSMUSG0000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0879318	064922.6	Junb	000052837	jun B proto-oncogene Source MGI Symbol Acc MGI 96647
C12	SBM0895807	ENSMUST00000095267.5	Jund	ENSMUSG0000071076	jun D proto-oncogene Source MGI Symbol Acc MGI 96648
D01	SBM0996057	ENSMUST00000202167.1	Kit	ENSMUSG0000005672	KIT proto-oncogene receptor tyrosine kinase Source MGI Symbol Acc MGI 96677
D02	SBM0685433	ENSMUST00000105283.8	Kitl	ENSMUSG0000019966	kit ligand Source MGI Symbol Acc MGI 96974
D03	SBM1059793	ENSMUST00000203147.2	Kras	ENSMUSG0000030265	Kirsten rat sarcoma viral oncogene homolog Source MGI Symbol Acc MGI 96680
D04	SBM0701175	ENSMUST00000178686.1	Mcl1	ENSMUSG0000038612	myeloid cell leukemia sequence 1 Source MGI Symbol Acc MGI 101769
D05	SBM0989223	ENSMUST00000020408.15	Mdm2	ENSMUSG0000020184	transformed mouse 3T3 cell double minute 2 Source MGI Symbol Acc MGI 96952
D06	SBM0896975	ENSMUST00000113504.9	Men1	ENSMUSG0000024947	multiple endocrine neoplasia 1 Source MGI Symbol Acc MGI 1316736
D07	SBM1055926	ENSMUST00000115442.7	Met	ENSMUSG0000009376	met proto-oncogene Source MGI Symbol Acc MGI 96969
D08	SBM0832259	ENSMUST00000081510.3	Mgmt	ENSMUSG0000054612	O-6-methylguanine-DNA methyltransferase Source MGI Symbol Acc MGI 96977
D09	SBM0706264	ENSMUST00000134316.1	Mlh1	ENSMUSG0000032498	mutL homolog 1 Source MGI Symbol Acc MGI 101938
D10	SBM0936407	ENSMUST00000105158.1	Mos	ENSMUSG0000078365	Moloney sarcoma oncogene Source MGI Symbol Acc MGI 97052
D11	SBM0801960	ENSMUST00000020158.8	Myb	ENSMUSG0000019982	myeloblastosis oncogene Source MGI Symbol Acc MGI 97249
D12	SBM0987162	ENSMUST00000159338.1	Myc	ENSMUSG0000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
E01	SBM1082904	ENSMUST00000043396.14	Mycn	ENSMUSG0000037169	v-myc avian myelocytomatosis viral related oncogene, neuroblastoma derived Source MGI Symbol Acc MGI 97357
E02	SBM1038616	ENSMUST00000122917.7	Nf1	ENSMUSG0000020716	neurofibromin 1 Source MGI Symbol Acc MGI 97306
E03	SBM0877965	ENSMUST00000124878.2	Nf2	ENSMUSG0000009073	neurofibromin 2 Source MGI Symbol Acc MGI 97307
E04	SBM0841870	ENSMUST00000164430.6	Nfkb1	ENSMUSG0000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
E05	SBM0696431	ENSMUST00000021413.8	Nfkbia	ENSMUSG0000021025	nuclear factor of kappa light polypeptide gene enhancer in B cells inhibitor, alpha Source MGI Symbol Acc MGI 104741
E06	SBM0922591	ENSMUST00000196355.4	Nras	ENSMUSG0000027852	neuroblastoma ras oncogene Source MGI Symbol Acc MGI 97376
E07	SBM1004372	ENSMUST00000170430.2	Pik3c2a	ENSMUSG0000030660	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha Source MGI Symbol Acc MGI 1203729
E08	SBM0905151	ENSMUST00000108243.7	Pik3ca	ENSMUSG0000027665	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source MGI Symbol Acc MGI 1206581
E09	SBM0751791	ENSMUST00000135310.7	Pml	ENSMUSG0000036986	promyelocytic leukemia Source MGI Symbol Acc MGI 104662
E10	SBM0890328	ENSMUST00000100302.3	Prkca	ENSMUSG0000050965	protein kinase C, alpha Source MGI Symbol Acc MGI 97595
E11	SBM0974573	ENSMUST00000124553.3	Raf1	ENSMUSG0000000441	v-raf-leukemia viral oncogene 1 Source MGI Symbol Acc MGI 97847
E12	SBM0703002	ENSMUST00000107475.8	Rara	ENSMUSG0000037992	retinoic acid receptor, alpha Source MGI Symbol Acc MGI 97856
F01	SBM0972716	ENSMUST00000121635.6	Rassf1	ENSMUSG0000010067	Ras association (RalGDS/AF-6) domain family member 1 Source MGI Symbol Acc MGI 1928386
F02	SBM0795530	ENSMUST00000168495.1	Rb1	ENSMUSG0000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
F03	SBM0781183	ENSMUST00000102864.4	Rel	ENSMUSG0000020275	reticuloendotheliosis oncogene Source MGI Symbol Acc MGI 97897
F04	SBM0867791	ENSMUST00000088790.8	Ret	ENSMUSG0000030110	ret proto-oncogene Source MGI Symbol Acc MGI 97902
F05	SBM0911961	ENSMUST00000219173.1	Ros1	ENSMUSG0000019893	Ros1 proto-oncogene Source MGI Symbol Acc MGI 97999
F06	SBM0812229	ENSMUST00000168195.7	Runx1	ENSMUSG0000022952	runt related transcription factor 1 Source MGI Symbol Acc MGI 99852
F07	SBM0735435	ENSMUST00000119564.1	Runx3	ENSMUSG0000070691	runt related transcription factor 3 Source MGI Symbol Acc MGI 102672
F08	SBM0891788	ENSMUST00000001046.6	S100a4	ENSMUSG0000001020	S100 calcium binding protein A4 Source MGI Symbol Acc MGI 1330282
F09	SBM0832102	ENSMUST00000086701.12	Serpib5	ENSMUSG0000067006	serine (or cysteine) peptidase inhibitor, clade B, member 5 Source MGI Symbol Acc MGI 109579
F10	SBM1092811	ENSMUST00000237796.1	Sh3pxd2a	ENSMUSG0000053617	SH3 and PX domains 2A Source MGI Symbol Acc MGI 1298393

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1071100	ENSMUST00000114939.1	Smad4	ENSMUSG00000024515	SMAD family member 4 Source MGI Symbol Acc MGI 894293
F12	SBM1051097	ENSMUST00000029175.13	Src	ENSMUSG00000027646	Rous sarcoma oncogene Source MGI Symbol Acc MGI 98397
G01	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG00000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G02	SBM0873081	ENSMUST00000213772.1	Stk11	ENSMUSG0000003068	serine/threonine kinase 11 Source MGI Symbol Acc MGI 1341870
G03	SBM0850388	ENSMUST00000002678.9	Tgfb1	ENSMUSG0000002603	transforming growth factor, beta 1 Source MGI Symbol Acc MGI 98725
G04	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG00000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G05	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG00000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G06	SBM1225400	ENSMUST00000105643.7	Trp73	ENSMUSG00000029026	transformation related protein 73 Source MGI Symbol Acc MGI 1336991
G07	SBM1061191	ENSMUST00000124507.1	Tsc1	ENSMUSG00000026812	tuberous sclerosis 1 Source MGI Symbol Acc MGI 1929183
G08	SBM0771727	ENSMUST00000128770.7	Vhl	ENSMUSG00000033933	von Hippel-Lindau tumor suppressor Source MGI Symbol Acc MGI 103223
G09	SBM0752964	ENSMUST00000213301.1	Wt1	ENSMUSG00000016458	Wilms tumor 1 homolog Source MGI Symbol Acc MGI 98968
G10	SBM0932145	ENSMUST00000109107.2	Wwox	ENSMUSG00000004637	WW domain-containing oxidoreductase Source MGI Symbol Acc MGI 1931237
G11	SBM0836371	ENSMUST00000205573.1	Xrcc1	ENSMUSG00000051768	X-ray repair complementing defective repair in Chinese hamster cells 1 Source MGI Symbol Acc MGI 99137
G12	SBM0932935	ENSMUST00000096430.10	Zhx2	ENSMUSG00000071757	zinc fingers and homeoboxes 2 Source MGI Symbol Acc MGI 2683087
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 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.