

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

## Mouse Cancer PathwayFinder™,ç

Cat. no. 249950 SBMM-033ZR

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acly	Acl4	Adm	Angpt1	Angpt2	Apaf1	Arnt	Atp5a1	Atrx	Aurka	Bcl2l11	Birc3
B	Bmi1	Car9	Casp2	Casp7	Casp9	Ccl2	Ccnd2	Ccnd3	Cdc20	Cdh2	Cflar	Cox5a
C	Cp12	Dab2	Dkc1	Dsp	E2f4	Epo	Erec3	Erec5	Ets2	Fasf	Fgf2	Fh1
D	Foxc2	G6pdx	Gadd45g	Gpd2	Gsc	Hmox1	Igf1bp3	Igf1bp5	Igf1bp7	Ing1	Kdr	Krt14
E	Ldha	Lig4	Lpl	Map2k1	Map2k3	Mcm2	Mki67	Nol3	Ocln	Pfkf	Pgf	Pinx1
F	Ppp1r15a	Serpinb2	Serpinf1	Sirt1	Sirt2	Skp2	Slc2a1	Snai1	Snai2	Snai3	Sox10	Stmn1
G	Tbx2	Tek	Tep1	Terf2ip	Tinf2	Tnks	Tnks2	Uqcrrf1	Vegfc	Wee1	Xiap	Xrcc4
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	SBM0970496	ENSMUST00000107389.7	Acly	ENSMUSG0000020917	ATP citrate lyase Source MGI Symbol Acc MGI 103251
A02	SBM0931597	ENSMUST00000033634.4	Acsl4	ENSMUSG00000031278	acyl-CoA synthetase long-chain family member 4 Source MGI Symbol Acc MGI 1354713
A03	SBM0999945	ENSMUST00000185766.1	Adm	ENSMUSG00000030790	adrenomedullin Source MGI Symbol Acc MGI 108058
A04	SBM0848818	ENSMUST00000022921.6	Angpt1	ENSMUSG0000022309	angiopoietin 1 Source MGI Symbol Acc MGI 108448
A05	SBM0989251	ENSMUST00000170200.1	Angpt2	ENSMUSG00000031465	angiopoietin 2 Source MGI Symbol Acc MGI 1202890
A06	SBM0931259	ENSMUST00000160788.1	Apaf1	ENSMUSG0000019979	apoptotic peptidase activating factor 1 Source MGI Symbol Acc MGI 1306796
A07	SBM0815999	ENSMUST00000140060.1	Arnt	ENSMUSG00000015522	aryl hydrocarbon receptor nuclear translocator Source MGI Symbol Acc MGI 88071
A08	SBM1087445	ENSMUST00000114748.1	Atp5a1	ENSMUSG00000025428	ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1 Source MGI Symbol Acc MGI 88115
A09	SBM0955852	ENSMUST00000154866.7	Atrx	ENSMUSG00000031229	ATRX, chromatin remodeler Source MGI Symbol Acc MGI 103067
A10	SBM0964097	ENSMUST00000028997.7	Aurka	ENSMUSG00000027496	aurora kinase A Source MGI Symbol Acc MGI 894678
A11	SBM1049841	ENSMUST00000089634.11	Bcl2l11	ENSMUSG00000027381	BCL2-like 11 (apoptosis facilitator) Source MGI Symbol Acc MGI 1197519
A12	SBM0873926	ENSMUST00000115672.1	Birc3	ENSMUSG00000032000	baculoviral IAP repeat-containing 3 Source MGI Symbol Acc MGI 1197007
B01	SBM0925658	ENSMUST00000150834.7	Bmi1	ENSMUSG00000026739	Bmi1 polycomb ring finger oncogene Source MGI Symbol Acc MGI 88174
B02	SBM0866761	ENSMUST00000124114.7	Car9	ENSMUSG00000028463	carbonic anhydrase 9 Source MGI Symbol Acc MGI 2447188
B03	SBM1225390	ENSMUST00000031895.12	Casp2	ENSMUSG00000029863	caspase 2 Source MGI Symbol Acc MGI 97295
B04	SBM1225391	ENSMUST00000026062.9	Casp7	ENSMUSG00000025076	caspase 7 Source MGI Symbol Acc MGI 109383
B05	SBM0686567	ENSMUST00000097805.10	Casp9	ENSMUSG00000028914	caspase 9 Source MGI Symbol Acc MGI 1277950
B06	SBM0836747	ENSMUST00000000193.5	Ccl2	ENSMUSG00000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
B07	SBM0977018	ENSMUST00000201066.1	Ccnd2	ENSMUSG00000000184	cyclin D2 Source MGI Symbol Acc MGI 88314
B08	SBM0907619	ENSMUST00000182935.7	Ccnd3	ENSMUSG00000034165	cyclin D3 Source MGI Symbol Acc MGI 88315
B09	SBM0827848	ENSMUST00000183942.1	Cdc20	ENSMUSG00000006398	cell division cycle 20 Source MGI Symbol Acc MGI 1859866
B10	SBM0822940	ENSMUST00000025166.13	Cdh2	ENSMUSG00000024304	cadherin 2 Source MGI Symbol Acc MGI 88355
B11	SBM0727764	ENSMUST00000124567.1	Cflar	ENSMUSG00000026031	CASP8 and FADD-like apoptosis regulator Source MGI Symbol Acc MGI 1336166
B12	SBM0980011	ENSMUST00000213678.1	Cox5a	ENSMUSG00000000888	cytochrome c oxidase subunit 5A Source MGI Symbol Acc MGI 88474
C01	SBM0911444	ENSMUST00000030345.14	Cpt2	ENSMUSG00000028607	carnitine palmitoyltransferase 2 Source MGI Symbol Acc MGI 109176
C02	SBM0998185	ENSMUST00000152277.7	Ddb2	ENSMUSG00000002109	damage specific DNA binding protein 2 Source MGI Symbol Acc MGI 1355314
C03	SBM0789239	ENSMUST00000135389.7	Dkc1	ENSMUSG00000031403	dyskeratosis congenita 1, dyskerin Source MGI Symbol Acc MGI 1861727
C04	SBM0781162	ENSMUST00000124830.2	Dsp	ENSMUSG00000054889	desmoplakin Source MGI Symbol Acc MGI 109611
C05	SBM1013821	ENSMUST00000015003.9	E2f4	ENSMUSG00000014859	E2F transcription factor 4 Source MGI Symbol Acc MGI 103012
C06	SBM0965635	ENSMUST00000111038.7	Epo	ENSMUSG00000029711	erythropoietin Source MGI Symbol Acc MGI 95407
C07	SBM0757944	ENSMUST00000129023.1	Ercc3	ENSMUSG00000024382	excision repair cross-complementing rodent repair deficiency, complementation group 3 Source MGI Symbol Acc MGI 95414
C08	SBM0968908	ENSMUST00000131177.7	Ercc5	ENSMUSG00000026048	excision repair cross-complementing rodent repair deficiency, complementation group 5 Source MGI Symbol Acc MGI 103582
C09	SBM0823296	ENSMUST00000023612.16	Ets2	ENSMUSG00000022895	E26 avian leukemia oncogene 2, 3 domain Source MGI Symbol Acc MGI 95456
C10	SBM0967876	ENSMUST00000000834.3	Fasl	ENSMUSG0000000817	Fas ligand (TNF superfamily, member 6) Source MGI Symbol Acc MGI 99255
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0959713	138563.8	Fgf2	000037225	fibroblast growth factor 2 Source MGI Symbol Acc MGI 95516
C12	SBM0996637	ENSMUST00000110529.5	Fli1	ENSMUSG0000029648	FMS-like tyrosine kinase 1 Source MGI Symbol Acc MGI 95558
D01	SBM0872986	ENSMUST00000054691.7	Foxc2	ENSMUSG0000046714	forkhead box C2 Source MGI Symbol Acc MGI 1347481
D02	SBM1034614	ENSMUST00000135894.1	G6pdx	ENSMUSG00000031400	glucose-6-phosphate dehydrogenase X-linked Source MGI Symbol Acc MGI 105979
D03	SBM0972980	ENSMUST00000021903.2	Gadd45g	ENSMUSG00000021453	growth arrest and DNA-damage-inducible 45 gamma Source MGI Symbol Acc MGI 1346325
D04	SBM0713021	ENSMUST00000141536.7	Gpd2	ENSMUSG0000026827	glycerol phosphate dehydrogenase 2, mitochondrial Source MGI Symbol Acc MGI 99778
D05	SBM0992498	ENSMUST00000021513.5	Gsc	ENSMUSG0000021095	goosecoid homeobox Source MGI Symbol Acc MGI 95841
D06	SBM0936413	ENSMUST00000005548.7	Hmox1	ENSMUSG0000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
D07	SBM0693110	ENSMUST00000020702.10	Igfbp3	ENSMUSG0000020427	insulin-like growth factor binding protein 3 Source MGI Symbol Acc MGI 96438
D08	SBM1004323	ENSMUST00000137339.1	Igfbp5	ENSMUSG00000026185	insulin-like growth factor binding protein 5 Source MGI Symbol Acc MGI 96440
D09	SBM1084499	ENSMUST00000046746.9	Igfbp7	ENSMUSG00000036256	insulin-like growth factor binding protein 7 Source MGI Symbol Acc MGI 1352480
D10	SBM0762147	ENSMUST00000209646.1	Ing1	ENSMUSG0000045969	inhibitor of growth family, member 1 Source MGI Symbol Acc MGI 1349481
D11	SBM0947462	ENSMUST00000149573.1	Kdr	ENSMUSG00000062960	kinase insert domain protein receptor Source MGI Symbol Acc MGI 96683
D12	SBM0899095	ENSMUST00000007272.7	Krt14	ENSMUSG0000045545	keratin 14 Source MGI Symbol Acc MGI 96688
E01	SBM1042883	ENSMUST00000209984.1	Ldha	ENSMUSG00000063229	lactate dehydrogenase A Source MGI Symbol Acc MGI 96759
E02	SBM1059958	ENSMUST00000170033.1	Lig4	ENSMUSG0000049717	ligase IV, DNA, ATP-dependent Source MGI Symbol Acc MGI 1335098
E03	SBM1060657	ENSMUST00000015712.14	Lpl	ENSMUSG0000015568	lipoprotein lipase Source MGI Symbol Acc MGI 96820
E04	SBM1025120	ENSMUST00000005066.8	Map2k1	ENSMUSG0000004936	mitogen-activated protein kinase kinase 1 Source MGI Symbol Acc MGI 1346866
E05	SBM0905391	ENSMUST00000130269.1	Map2k3	ENSMUSG0000018932	mitogen-activated protein kinase kinase 3 Source MGI Symbol Acc MGI 1346868
E06	SBM1084871	ENSMUST00000058011.7	Mcm2	ENSMUSG0000002870	minichromosome maintenance complex component 2 Source MGI Symbol Acc MGI 105380
E07	SBM0976366	ENSMUST00000211238.1	Mki67	ENSMUSG00000031004	antigen identified by monoclonal antibody Ki 67 Source MGI Symbol Acc MGI 106035
E08	SBM0777438	ENSMUST00000014920.7	Nol3	ENSMUSG00000014776	nucleolar protein 3 (apoptosis repressor with CARD domain) Source MGI Symbol Acc MGI 1925938
E09	SBM1083398	ENSMUST00000159515.1	Ocln	ENSMUSG0000021638	occludin Source MGI Symbol Acc MGI 106183
E10	SBM0896739	ENSMUST00000148818.1	Pfkfb3	ENSMUSG0000020277	phosphofructokinase, liver, B-type Source MGI Symbol Acc MGI 97547
E11	SBM0900847	ENSMUST00000220985.1	Pgf	ENSMUSG0000004791	placental growth factor Source MGI Symbol Acc MGI 105095
E12	SBM0677877	ENSMUST00000022528.5	Pinx1	ENSMUSG0000021958	PIN2/TERF1 interacting, telomerase inhibitor 1 Source MGI Symbol Acc MGI 1919650
F01	SBM1018214	ENSMUST00000042105.10	Ppp1r15a	ENSMUSG0000040435	protein phosphatase 1, regulatory subunit 15A Source MGI Symbol Acc MGI 1927072
F02	SBM0738846	ENSMUST00000009356.10	Serpnb2	ENSMUSG0000062345	serine (or cysteine) peptidase inhibitor, clade B, member 2 Source MGI Symbol Acc MGI 97609
F03	SBM0759610	ENSMUST00000168902.7	Serpinf1	ENSMUSG0000000753	serine (or cysteine) peptidase inhibitor, clade F, member 1 Source MGI Symbol Acc MGI 108080
F04	SBM1040786	ENSMUST00000020257.12	Sirt1	ENSMUSG0000020063	sirtuin 1 Source MGI Symbol Acc MGI 2135607
F05	SBM0809599	ENSMUST00000132789.7	Sirt2	ENSMUSG0000015149	sirtuin 2 Source MGI Symbol Acc MGI 1927664
F06	SBM0771788	ENSMUST00000096482.9	Skp2	ENSMUSG0000054115	S-phase kinase-associated protein 2 (p45) Source MGI Symbol Acc MGI 1351663
F07	SBM1008931	ENSMUST00000144329.7	Slc2a1	ENSMUSG0000028645	solute carrier family 2 (facilitated glucose transporter), member 1 Source MGI Symbol Acc MGI 95755
F08	SBM0756361	ENSMUST00000052631.7	Snai1	ENSMUSG0000042821	snail family zinc finger 1 Source MGI Symbol Acc MGI 98330
F09	SBM0992194	ENSMUST00000023356.7	Snai2	ENSMUSG0000022676	snail family zinc finger 2 Source MGI Symbol Acc MGI 1096393
F10	SBM0930619	ENSMUST00000006762.6	Snai3	ENSMUSG0000006587	snail family zinc finger 3 Source MGI Symbol Acc MGI 1353563

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0924103	ENSMUST00000040019.4	Sox10	ENSMUSG00000033006	SRY (sex determining region Y)-box 10 Source MGI Symbol Acc MGI 98358
F12	SBM0820556	ENSMUST00000130253.1	Stmn1	ENSMUSG0000028832	stathmin 1 Source MGI Symbol Acc MGI 96739
G01	SBM1061166	ENSMUST00000000095.6	Tbx2	ENSMUSG0000000093	T-box 2 Source MGI Symbol Acc MGI 98494
G02	SBM0875032	ENSMUST00000131958.1	Tek	ENSMUSG0000006386	TEK receptor tyrosine kinase Source MGI Symbol Acc MGI 98664
G03	SBM0946761	ENSMUST00000006444.8	Tep1	ENSMUSG0000006281	telomerase associated protein 1 Source MGI Symbol Acc MGI 109573
G04	SBM0920871	ENSMUST00000052138.10	Terf2ip	ENSMUSG00000033430	telomeric repeat binding factor 2, interacting protein Source MGI Symbol Acc MGI 1929871
G05	SBM0796156	ENSMUST00000227842.1	Tinf2	ENSMUSG0000007589	Terf1 (TRF1)-interacting nuclear factor 2 Source MGI Symbol Acc MGI 107246
G06	SBM0787995	ENSMUST00000033929.5	Tnks	ENSMUSG00000031529	tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase Source MGI Symbol Acc MGI 1341087
G07	SBM0991616	ENSMUST00000164665.1	Tnks2	ENSMUSG00000024811	tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase 2 Source MGI Symbol Acc MGI 1921743
G08	SBM0730783	ENSMUST00000042834.3	Uqcrfs1	ENSMUSG00000038462	ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 Source MGI Symbol Acc MGI 1913944
G09	SBM0863177	ENSMUST00000209703.1	Vegfc	ENSMUSG00000031520	vascular endothelial growth factor C Source MGI Symbol Acc MGI 109124
G10	SBM0782254	ENSMUST00000033326.9	Wee1	ENSMUSG00000031016	WEE 1 homolog 1 (S. pombe) Source MGI Symbol Acc MGI 103075
G11	SBM0766940	ENSMUST00000115095.8	Xiap	ENSMUSG00000025860	X-linked inhibitor of apoptosis Source MGI Symbol Acc MGI 107572
G12	SBM1030169	ENSMUST00000161396.1	Xrcc4	ENSMUSG00000021615	X-ray repair complementing defective repair in Chinese hamster cells 4 Source MGI Symbol Acc MGI 1333799
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 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ 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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