

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

## Mouse Stem Cell

Cat. no. 249950 SBMM-405ZR

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	Abcg2	Acan	Actc1	Adar	Aldh1a1	Aldh2	Apc	Ascl2	Axin1	Bglap	Bmp1	Bmp2
B	Bmp3	Birc	Ccna2	Ccnd1	Ccnd2	Ccne1	Cd19	Cd3d	Cd4	Cd44	Cd8a	Cd8b1
C	Cdc42	Cdh1	Cdh2	Cdk1	Col1a1	Col2a1	Col9a1	Ctnna1	Cxcl12	Dhh	Dll1	Dll3
D	Dtx1	Dtx2	Dvl1	Ep300	Fgf1	Fgf2	Fgf3	Fgf4	Fgfr1	Foxo2	Frat1	Fzd1
E	Gdf2	Gdf3	Gja1	Gjb1	Hdac1	Hdac2	Hspa9	Igf1	Isl1	Jag1	Kat2a	Krt15
F	Mme	Msx1	Myc	Myd1	Kat8	Kat7	Ncam1	Neurog2	Notch1	Notch2	Numb	Pard6a
G	Pdx1	Ppard	Pparg	Rb1	S100b	Sigmar1	Sox1	Sox2	T	Tert	Tubb3	Wnt1
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	SBM0956969	ENSMUST00000145161.7	Abcg2	ENSMUSG0000029802	ATP binding cassette subfamily G member 2 (Junior blood group) Source MGI Symbol Acc MGI 1347061
A02	SBM0987202	ENSMUST00000032835.6	Acan	ENSMUSG0000030607	aggrecan Source MGI Symbol Acc MGI 99602
A03	SBM0981403	ENSMUST00000090269.6	Act1	ENSMUSG0000068614	actin, alpha, cardiac muscle 1 Source MGI Symbol Acc MGI 87905
A04	SBM0984683	ENSMUST00000107405.5	Adar	ENSMUSG0000027951	adenosine deaminase, RNA-specific Source MGI Symbol Acc MGI 1889575
A05	SBM0801506	ENSMUST00000225337.2	Aldh1a1	ENSMUSG0000053279	aldehyde dehydrogenase family 1, subfamily A1 Source MGI Symbol Acc MGI 1353450
A06	SBM0700925	ENSMUST00000129753.7	Aldh2	ENSMUSG0000029455	aldehyde dehydrogenase 2, mitochondrial Source MGI Symbol Acc MGI 99600
A07	SBM0782035	ENSMUST00000079362.12	Apc	ENSMUSG0000005871	APC, WNT signaling pathway regulator Source MGI Symbol Acc MGI 88039
A08	SBM0894952	ENSMUST00000121862.2	Ascl2	ENSMUSG0000009248	achaete-scute family bHLH transcription factor 2 Source MGI Symbol Acc MGI 96920
A09	SBM0716956	ENSMUST00000168282.2	Axin1	ENSMUSG0000024182	axin 1 Source MGI Symbol Acc MGI 1096327
A10	SBM0768580	ENSMUST00000076048.4	Bglap	ENSMUSG0000074483	bone gamma carboxyglutamate protein Source MGI Symbol Acc MGI 88156
A11	SBM1022339	ENSMUST00000022693.8	Bmp1	ENSMUSG0000022098	bone morphogenetic protein 1 Source MGI Symbol Acc MGI 88176
A12	SBM0831820	ENSMUST00000028836.6	Bmp2	ENSMUSG0000027358	bone morphogenetic protein 2 Source MGI Symbol Acc MGI 88177
B01	SBM0867543	ENSMUST00000200388.1	Bmp3	ENSMUSG0000029335	bone morphogenetic protein 3 Source MGI Symbol Acc MGI 88179
B02	SBM0704070	ENSMUST00000225662.1	Btrc	ENSMUSG0000025217	beta-transducin repeat containing protein Source MGI Symbol Acc MGI 1338871
B03	SBM0908421	ENSMUST00000029270.9	Ccna2	ENSMUSG0000027715	cyclin A2 Source MGI Symbol Acc MGI 108069
B04	SBM0706150	ENSMUST00000093962.4	Ccnd1	ENSMUSG0000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
B05	SBM0977018	ENSMUST00000201066.1	Ccnd2	ENSMUSG0000000184	cyclin D2 Source MGI Symbol Acc MGI 88314
B06	SBM0866938	ENSMUST00000124979.2	Ccne1	ENSMUSG0000002068	cyclin E1 Source MGI Symbol Acc MGI 88316
B07	SBM0688343	ENSMUST00000206325.1	Cd19	ENSMUSG0000030724	CD19 antigen Source MGI Symbol Acc MGI 88319
B08	SBM0906451	ENSMUST00000034602.8	Cd3d	ENSMUSG0000032094	CD3 antigen, delta polypeptide Source MGI Symbol Acc MGI 88331
B09	SBM1064445	ENSMUST00000024044.6	Cd4	ENSMUSG0000023274	CD4 antigen Source MGI Symbol Acc MGI 88335
B10	SBM0860996	ENSMUST00000111194.7	Cd44	ENSMUSG0000005087	CD44 antigen Source MGI Symbol Acc MGI 88338
B11	SBM0809834	ENSMUST00000205054.1	Cd8a	ENSMUSG0000053977	CD8 antigen, alpha chain Source MGI Symbol Acc MGI 88346
B12	SBM1023066	ENSMUST00000065248.8	Cd8b1	ENSMUSG0000053044	CD8 antigen, beta chain 1 Source MGI Symbol Acc MGI 88347
C01	SBM1071094	ENSMUST00000030417.9	Cdc42	ENSMUSG0000006699	cell division cycle 42 Source MGI Symbol Acc MGI 106211
C02	SBM0815100	ENSMUST00000136580.1	Cdh1	ENSMUSG0000000303	cadherin 1 Source MGI Symbol Acc MGI 88354
C03	SBM0822940	ENSMUST00000025166.13	Cdh2	ENSMUSG0000024304	cadherin 2 Source MGI Symbol Acc MGI 88355
C04	SBM0979951	ENSMUST00000129444.7	Cdk1	ENSMUSG0000019942	cyclin-dependent kinase 1 Source MGI Symbol Acc MGI 88351
C05	SBM0911341	ENSMUST00000139974.1	Col1a1	ENSMUSG0000001506	collagen, type I, alpha 1 Source MGI Symbol Acc MGI 88467
C06	SBM1035677	ENSMUST00000139246.7	Col2a1	ENSMUSG0000022483	collagen, type II, alpha 1 Source MGI Symbol Acc MGI 88452
C07	SBM0919972	ENSMUST00000088349.2	Col9a1	ENSMUSG0000026147	collagen, type IX, alpha 1 Source MGI Symbol Acc MGI 88465
C08	SBM0712952	ENSMUST00000236571.1	Ctnna1	ENSMUSG0000037815	catenin (cadherin associated protein), alpha 1 Source MGI Symbol Acc MGI 88274
C09	SBM0703161	ENSMUST00000134244.1	Cxcl12	ENSMUSG0000061353	chemokine (C-X-C motif) ligand 12 Source MGI Symbol Acc MGI 103556
C10	SBM0741461	ENSMUST00000229775.1	Dhh	ENSMUSG0000023000	desert hedgehog Source MGI Symbol Acc MGI 94891
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0898031	124196.1	Dll1	000014773	delta like canonical Notch ligand 1 Source MGI Symbol Acc MGI 104659
C12	SBM0779744	ENSMUST00000108315.3	Dll3	ENSMUSG0000003436	delta like canonical Notch ligand 3 Source MGI Symbol Acc MGI 1096877
D01	SBM0872158	ENSMUST00000145174.7	Dtx1	ENSMUSG00000029603	deltex 1, E3 ubiquitin ligase Source MGI Symbol Acc MGI 1352744
D02	SBM1090644	ENSMUST00000111142.8	Dtx2	ENSMUSG00000004947	deltex 2, E3 ubiquitin ligase Source MGI Symbol Acc MGI 1921448
D03	SBM1047833	ENSMUST00000156997.7	Dvl1	ENSMUSG00000029071	dishevelled segment polarity protein 1 Source MGI Symbol Acc MGI 94941
D04	SBM1065431	ENSMUST00000190035.1	Ep300	ENSMUSG00000055024	E1A binding protein p300 Source MGI Symbol Acc MGI 1276116
D05	SBM1074617	ENSMUST00000235922.1	Fgf1	ENSMUSG00000036585	fibroblast growth factor 1 Source MGI Symbol Acc MGI 95515
D06	SBM0959713	ENSMUST00000138563.8	Fgf2	ENSMUSG00000037225	fibroblast growth factor 2 Source MGI Symbol Acc MGI 95516
D07	SBM0844076	ENSMUST00000155320.7	Fgf3	ENSMUSG00000031074	fibroblast growth factor 3 Source MGI Symbol Acc MGI 95517
D08	SBM0696463	ENSMUST00000060336.4	Fgf4	ENSMUSG00000050917	fibroblast growth factor 4 Source MGI Symbol Acc MGI 95518
D09	SBM1002495	ENSMUST00000178276.7	Fgfr1	ENSMUSG00000031565	fibroblast growth factor receptor 1 Source MGI Symbol Acc MGI 95522
D10	SBM1016226	ENSMUST00000109964.7	Foxa2	ENSMUSG00000037025	forkhead box A2 Source MGI Symbol Acc MGI 1347476
D11	SBM1047484	ENSMUST00000087155.4	Frat1	ENSMUSG00000067199	frequently rearranged in advanced T cell lymphomas Source MGI Symbol Acc MGI 109450
D12	SBM0714051	ENSMUST00000054294.6	Fzd1	ENSMUSG00000044674	frizzled class receptor 1 Source MGI Symbol Acc MGI 1196625
E01	SBM1079890	ENSMUST00000100720.1	Gdf2	ENSMUSG00000072625	growth differentiation factor 2 Source MGI Symbol Acc MGI 1321394
E02	SBM0688843	ENSMUST00000032211.4	Gdf3	ENSMUSG00000030117	growth differentiation factor 3 Source MGI Symbol Acc MGI 95686
E03	SBM1033106	ENSMUST00000218834.1	Gja1	ENSMUSG00000050953	gap junction protein, alpha 1 Source MGI Symbol Acc MGI 95713
E04	SBM0842245	ENSMUST00000119190.1	Gjb1	ENSMUSG00000047797	gap junction protein, beta 1 Source MGI Symbol Acc MGI 95719
E05	SBM0727728	ENSMUST00000132909.1	Hdac1	ENSMUSG00000028800	histone deacetylase 1 Source MGI Symbol Acc MGI 108086
E06	SBM0725412	ENSMUST00000019911.13	Hdac2	ENSMUSG00000019777	histone deacetylase 2 Source MGI Symbol Acc MGI 1097691
E07	SBM0858823	ENSMUST00000025217.10	Hspa9	ENSMUSG00000024359	heat shock protein 9 Source MGI Symbol Acc MGI 96245
E08	SBM1026650	ENSMUST00000122386.7	Igf1	ENSMUSG00000020053	insulin-like growth factor 1 Source MGI Symbol Acc MGI 96432
E09	SBM0835801	ENSMUST00000176444.1	Isl1	ENSMUSG00000042258	ISL1 transcription factor, LIM/homeodomain Source MGI Symbol Acc MGI 101791
E10	SBM0986327	ENSMUST00000028735.7	Jag1	ENSMUSG00000027276	jagged 1 Source MGI Symbol Acc MGI 1095416
E11	SBM1007263	ENSMUST00000006973.11	Kat2a	ENSMUSG00000020918	K(lysine) acetyltransferase 2A Source MGI Symbol Acc MGI 1343101
E12	SBM0685135	ENSMUST00000148502.1	Krt15	ENSMUSG00000054146	keratin 15 Source MGI Symbol Acc MGI 96689
F01	SBM1084805	ENSMUST00000192002.2	Mme	ENSMUSG00000027820	membrane metallo endopeptidase Source MGI Symbol Acc MGI 97004
F02	SBM0852441	ENSMUST00000063116.9	Msx1	ENSMUSG00000048450	msh homeobox 1 Source MGI Symbol Acc MGI 97168
F03	SBM0987162	ENSMUST00000159338.1	Myc	ENSMUSG00000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
F04	SBM0847322	ENSMUST00000072514.2	Myod1	ENSMUSG00000009471	myogenic differentiation 1 Source MGI Symbol Acc MGI 97275
F05	SBM0794895	ENSMUST00000033070.8	Kat8	ENSMUSG00000030801	K(lysine) acetyltransferase 8 Source MGI Symbol Acc MGI 1915023
F06	SBM0674945	ENSMUST00000144456.7	Kat7	ENSMUSG00000038909	K(lysine) acetyltransferase 7 Source MGI Symbol Acc MGI 2182799
F07	SBM1225395	ENSMUST00000114476.7	Ncam1	ENSMUSG00000039542	neural cell adhesion molecule 1 Source MGI Symbol Acc MGI 97281
F08	SBM0947488	ENSMUST00000029587.8	Neurog2	ENSMUSG00000027967	neurogenin 2 Source MGI Symbol Acc MGI 109619
F09	SBM1060528	ENSMUST00000132820.1	Notch1	ENSMUSG00000026923	notch 1 Source MGI Symbol Acc MGI 97363
F10	SBM0724048	ENSMUST00000079812.7	Notch2	ENSMUSG00000027878	notch 2 Source MGI Symbol Acc MGI 97364

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0789482	ENSMUST00000155112.7	Numb	ENSMUSG00000021224	NUMB endocytic adaptor protein Source MGI Symbol Acc MGI 107423
F12	SBM1047780	ENSMUST00000212430.1	Pard6a	ENSMUSG0000005699	par-6 family cell polarity regulator alpha Source MGI Symbol Acc MGI 1927223
G01	SBM0814253	ENSMUST0000085591.6	Pdx1	ENSMUSG00000029644	pancreatic and duodenal homeobox 1 Source MGI Symbol Acc MGI 102851
G02	SBM0865243	ENSMUST00000169040.2	Ppard	ENSMUSG0000002250	peroxisome proliferator activator receptor delta Source MGI Symbol Acc MGI 101884
G03	SBM1015614	ENSMUST00000205213.2	Pparg	ENSMUSG0000000440	peroxisome proliferator activated receptor gamma Source MGI Symbol Acc MGI 97747
G04	SBM0795530	ENSMUST00000168495.1	Rb1	ENSMUSG00000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
G05	SBM1054599	ENSMUST0000036387.7	S100b	ENSMUSG00000033208	S100 protein, beta polypeptide, neural Source MGI Symbol Acc MGI 98217
G06	SBM0953099	ENSMUST00000133590.1	Sigmar1	ENSMUSG00000036078	sigma non-opioid intracellular receptor 1 Source MGI Symbol Acc MGI 1195268
G07	SBM0883593	ENSMUST00000180353.1	Sox1	ENSMUSG00000096014	SRY (sex determining region Y)-box 1 Source MGI Symbol Acc MGI 98357
G08	SBM0819160	ENSMUST00000099151.5	Sox2	ENSMUSG00000074637	SRY (sex determining region Y)-box 2 Source MGI Symbol Acc MGI 98364
G09	SBM0804890	ENSMUST00000074667.8	T	ENSMUSG00000062327	brachyury, T-box transcription factor T Source MGI Symbol Acc MGI 98472
G10	SBM0871763	ENSMUST00000223303.1	Tert	ENSMUSG00000021611	telomerase reverse transcriptase Source MGI Symbol Acc MGI 1202709
G11	SBM0759517	ENSMUST00000212743.1	Tubb3	ENSMUSG00000062380	tubulin, beta 3 class III Source MGI Symbol Acc MGI 107813
G12	SBM0828761	ENSMUST00000023734.7	Wnt1	ENSMUSG00000022997	wingless-type MMTV integration site family, member 1 Source MGI Symbol Acc MGI 98953
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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