

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

## Mouse Transcription Factors

Cat. no. 249950 SBMM-075ZR

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	Ar	Arnt	Aif1	Aif2	Aif3	Aif4	Cebpa	Cebpb	Cebpg	Cisrp	Creb1	Crebbp
B	Cttnb1	Dr1	E2f1	E2f6	Egr1	Esr1	Ets1	Ets2	Fos	Foxa2	Foxg1	Gata1
C	Gata2	Gata3	Gli1	Gtf2b	Gtf2f1	Hand1	Hand2	Hdac1	Hif1a	Hnf1a	Hnf4a	Hoxa5
D	Hsf1	Id1	Irf1	Jun	Junb	Jund	Kcnc8	Max	Mef2a	Mef2b	Mef2c	Myc
E	Myf5	Myod1	Nanos2	Nfat5	Nfatc2	Nfatc3	Nfatc4	Nrkb1	Nfyb	Nr3c1	Pax6	Pou2af1
F	Ppara	Pparg	Rb1	Rel	Rela	Smad1	Smad4	Smad5	Smad9	Sp1	Sp3	Stat1
G	Stat2	Stat3	Stat4	Stat5a	Stat5b	Stat6	Tbp	Tcf7l2	Tfap2a	Tgfb1	Trp53	Yy1
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	SBM0829583	ENSMUST00000052837.8	Ar	ENSMUSG0000046532	androgen receptor Source MGI Symbol Acc MGI 88064
A02	SBM0815999	ENSMUST00000140060.1	Arnt	ENSMUSG0000015522	aryl hydrocarbon receptor nuclear translocator Source MGI Symbol Acc MGI 88071
A03	SBM0806398	ENSMUST00000172154.7	Atf1	ENSMUSG0000023027	activating transcription factor 1 Source MGI Symbol Acc MGI 1298366
A04	SBM1035001	ENSMUST00000112007.7	Atf2	ENSMUSG0000027104	activating transcription factor 2 Source MGI Symbol Acc MGI 109349
A05	SBM0766362	ENSMUST00000131854.1	Atf3	ENSMUSG0000026628	activating transcription factor 3 Source MGI Symbol Acc MGI 109384
A06	SBM1055409	ENSMUST00000230434.1	Atf4	ENSMUSG0000042406	activating transcription factor 4 Source MGI Symbol Acc MGI 88096
A07	SBM0970317	ENSMUST00000205391.1	Cebpa	ENSMUSG0000034957	CCAAT/enhancer binding protein (C/EBP), alpha Source MGI Symbol Acc MGI 99480
A08	SBM0682459	ENSMUST00000070642.3	Cebpb	ENSMUSG0000056501	CCAAT/enhancer binding protein (C/EBP), beta Source MGI Symbol Acc MGI 88373
A09	SBM0872971	ENSMUST00000205752.1	Cebpg	ENSMUSG0000056216	CCAAT/enhancer binding protein (C/EBP), gamma Source MGI Symbol Acc MGI 104982
A10	SBM0673886	ENSMUST00000207663.1	Clasrp	ENSMUSG0000061028	CLK4-associating serine/arginine rich protein Source MGI Symbol Acc MGI 1855695
A11	SBM0735214	ENSMUST00000188855.6	Creb1	ENSMUSG0000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
A12	SBM0926551	ENSMUST00000205765.1	Crebbp	ENSMUSG0000022521	CREB binding protein Source MGI Symbol Acc MGI 1098280
B01	SBM1021462	ENSMUST00000007130.14	Ctnnb1	ENSMUSG0000006932	catenin (cadherin associated protein), beta 1 Source MGI Symbol Acc MGI 88276
B02	SBM1043809	ENSMUST00000031190.4	Dr1	ENSMUSG0000029265	down-regulator of transcription 1 Source MGI Symbol Acc MGI 1100515
B03	SBM0678575	ENSMUST00000000894.5	E2f1	ENSMUSG0000027490	E2F transcription factor 1 Source MGI Symbol Acc MGI 101941
B04	SBM0686455	ENSMUST00000220707.1	E2f6	ENSMUSG0000057469	E2F transcription factor 6 Source MGI Symbol Acc MGI 1354159
B05	SBM0782056	ENSMUST00000064795.5	Egr1	ENSMUSG0000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
B06	SBM0745819	ENSMUST00000067086.13	Esr1	ENSMUSG0000019768	estrogen receptor 1 (alpha) Source MGI Symbol Acc MGI 1352467
B07	SBM0897035	ENSMUST00000184887.1	Ets1	ENSMUSG0000032035	E26 avian leukemia oncogene 1, 5 domain Source MGI Symbol Acc MGI 95455
B08	SBM0823296	ENSMUST00000023612.16	Ets2	ENSMUSG0000022895	E26 avian leukemia oncogene 2, 3 domain Source MGI Symbol Acc MGI 95456
B09	SBM0977461	ENSMUST00000134311.1	Fos	ENSMUSG0000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
B10	SBM1016226	ENSMUST00000109964.7	Foxa2	ENSMUSG0000037025	forkhead box A2 Source MGI Symbol Acc MGI 1347476
B11	SBM0708392	ENSMUST00000179669.2	Foxg1	ENSMUSG0000020950	forkhead box G1 Source MGI Symbol Acc MGI 1347464
B12	SBM0835110	ENSMUST00000033502.13	Gata1	ENSMUSG0000031162	GATA binding protein 1 Source MGI Symbol Acc MGI 95661
C01	SBM0720280	ENSMUST00000015197.8	Gata2	ENSMUSG0000015053	GATA binding protein 2 Source MGI Symbol Acc MGI 95662
C02	SBM0782281	ENSMUST00000147533.1	Gata3	ENSMUSG0000015619	GATA binding protein 3 Source MGI Symbol Acc MGI 95663
C03	SBM0738831	ENSMUST00000219671.1	Gli1	ENSMUSG0000025407	GLI-Kruppel family member GLI1 Source MGI Symbol Acc MGI 95727
C04	SBM0729839	ENSMUST00000029938.9	Gtf2b	ENSMUSG0000028271	general transcription factor IIB Source MGI Symbol Acc MGI 2385191
C05	SBM1067678	ENSMUST00000002733.6	Gtf2f1	ENSMUSG0000002658	general transcription factor IIF, polypeptide 1 Source MGI Symbol Acc MGI 1923848
C06	SBM0775153	ENSMUST00000036917.2	Hand1	ENSMUSG0000037335	heart and neural crest derivatives expressed 1 Source MGI Symbol Acc MGI 103577
C07	SBM0980008	ENSMUST00000040104.4	Hand2	ENSMUSG0000038193	heart and neural crest derivatives expressed 2 Source MGI Symbol Acc MGI 103580
C08	SBM0727728	ENSMUST00000132909.1	Hdac1	ENSMUSG0000028800	histone deacetylase 1 Source MGI Symbol Acc MGI 108086
C09	SBM1003614	ENSMUST00000110464.7	Hif1a	ENSMUSG0000021109	hypoxia inducible factor 1, alpha subunit Source MGI Symbol Acc MGI 106918
C10	SBM0710804	ENSMUST00000176550.1	Hnf1a	ENSMUSG0000029556	HNF1 homeobox A Source MGI Symbol Acc MGI 98504
		ENSMUST000000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0836445	109411.7	Hnf4a	000017950	hepatic nuclear factor 4, alpha Source MGI Symbol Acc MGI 109128
C12	SBM0749595	ENSMUST00000 048794.6	Hoxa5	ENSMUSG00 000038253	homeobox A5 Source MGI Symbol Acc MGI 96177
D01	SBM0680334	ENSMUST00000 230069.1	Hsf1	ENSMUSG00 000022556	heat shock factor 1 Source MGI Symbol Acc MGI 96238
D02	SBM0688367	ENSMUST00000 109824.1	Id1	ENSMUSG00 000042745	inhibitor of DNA binding 1 Source MGI Symbol Acc MGI 96396
D03	SBM1091850	ENSMUST00000 138913.7	Irf1	ENSMUSG00 000018899	interferon regulatory factor 1 Source MGI Symbol Acc MGI 96590
D04	SBM1045409	ENSMUST00000 107094.1	Jun	ENSMUSG00 000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
D05	SBM0879318	ENSMUST00000 064922.6	Junb	ENSMUSG00 000052837	jun B proto-oncogene Source MGI Symbol Acc MGI 96647
D06	SBM0895807	ENSMUST00000 095267.5	Jund	ENSMUSG00 000071076	jun D proto-oncogene Source MGI Symbol Acc MGI 96648
D07	SBM0959553	ENSMUST00000 184279.1	Kcnh8	ENSMUSG00 000035580	potassium voltage-gated channel, subfamily H (eag-related), member 8 Source MGI Symbol Acc MGI 2445160
D08	SBM0734133	ENSMUST00000 218640.1	Max	ENSMUSG00 000059436	Max protein Source MGI Symbol Acc MGI 96921
D09	SBM0912123	ENSMUST00000 072460.12	Mef2a	ENSMUSG00 000030557	myocyte enhancer factor 2A Source MGI Symbol Acc MGI 99532
D10	SBM0969969	ENSMUST00000 110146.8	Mef2b	ENSMUSG00 000079033	myocyte enhancer factor 2B Source MGI Symbol Acc MGI 104526
D11	SBM0750479	ENSMUST00000 199210.4	Mef2c	ENSMUSG00 000005583	myocyte enhancer factor 2C Source MGI Symbol Acc MGI 99458
D12	SBM0987162	ENSMUST00000 159338.1	Myc	ENSMUSG00 000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
E01	SBM1013382	ENSMUST00000 000445.1	Myf5	ENSMUSG00 000000435	myogenic factor 5 Source MGI Symbol Acc MGI 97252
E02	SBM0847322	ENSMUST00000 072514.2	Myod1	ENSMUSG00 000009471	myogenic differentiation 1 Source MGI Symbol Acc MGI 97275
E03	SBM0673807	ENSMUST00000 063563.8	Nanos2	ENSMUSG00 000051965	nanos C2HC-type zinc finger 2 Source MGI Symbol Acc MGI 2676627
E04	SBM0948071	ENSMUST00000 075922.10	Nfat5	ENSMUSG00 000003847	nuclear factor of activated T cells 5 Source MGI Symbol Acc MGI 1859333
E05	SBM0850906	ENSMUST00000 099067.9	Nfatc2	ENSMUSG00 000027544	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 2 Source MGI Symbol Acc MGI 102463
E06	SBM1071895	ENSMUST00000 212936.1	Nfatc3	ENSMUSG00 000031902	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 3 Source MGI Symbol Acc MGI 103296
E07	SBM0813365	ENSMUST00000 226716.1	Nfatc4	ENSMUSG00 000023411	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 4 Source MGI Symbol Acc MGI 1920431
E08	SBM0841870	ENSMUST00000 164430.6	Nfkb1	ENSMUSG00 000028163	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312
E09	SBM0928103	ENSMUST00000 130911.7	Nfya	ENSMUSG00 000020248	nuclear transcription factor-Y beta Source MGI Symbol Acc MGI 97317
E10	SBM0963014	ENSMUST00000 115571.7	Nr3c1	ENSMUSG00 000024431	nuclear receptor subfamily 3, group C, member 1 Source MGI Symbol Acc MGI 95824
E11	SBM0924606	ENSMUST00000 090391.12	Pax6	ENSMUSG00 000027168	paired box 6 Source MGI Symbol Acc MGI 97490
E12	SBM0942490	ENSMUST00000 214322.1	Pou2af1	ENSMUSG00 000032053	POU domain, class 2, associating factor 1 Source MGI Symbol Acc MGI 105086
F01	SBM0952484	ENSMUST00000 138813.7	Ppara	ENSMUSG00 000022383	peroxisome proliferator activated receptor alpha Source MGI Symbol Acc MGI 104740
F02	SBM1015614	ENSMUST00000 205213.2	Pparg	ENSMUSG00 000000440	peroxisome proliferator activated receptor gamma Source MGI Symbol Acc MGI 97747
F03	SBM0795530	ENSMUST00000 168495.1	Rb1	ENSMUSG00 000022105	RB transcriptional corepressor 1 Source MGI Symbol Acc MGI 97874
F04	SBM0781183	ENSMUST00000 102864.4	Rel	ENSMUSG00 000020275	reticuloendotheliosis oncogene Source MGI Symbol Acc MGI 97897
F05	SBM0937498	ENSMUST00000 237361.1	Rela	ENSMUSG00 000024927	v-rel reticuloendotheliosis viral oncogene homolog A (avian) Source MGI Symbol Acc MGI 103290
F06	SBM0887383	ENSMUST00000 109885.7	Smad1	ENSMUSG00 000031681	SMAD family member 1 Source MGI Symbol Acc MGI 109452
F07	SBM1071100	ENSMUST00000 114939.1	Smad4	ENSMUSG00 000024515	SMAD family member 4 Source MGI Symbol Acc MGI 894293
F08	SBM0732806	ENSMUST00000 109876.7	Smad5	ENSMUSG00 000021540	SMAD family member 5 Source MGI Symbol Acc MGI 1328787
F09	SBM0885140	ENSMUST00000 029371.2	Smad9	ENSMUSG00 000027796	SMAD family member 9 Source MGI Symbol Acc MGI 1859993
F10	SBM0682351	ENSMUST00000 169619.1	Sp1	ENSMUSG00 000001280	trans-acting transcription factor 1 Source MGI Symbol Acc MGI 98372

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0775220	ENSMUST00000102689.9	Sp3	ENSMUSG00000027109	trans-acting transcription factor 3 Source MGI Symbol Acc MGI 1277166
F12	SBM0954168	ENSMUST00000070968.13	Stat1	ENSMUSG00000026104	signal transducer and activator of transcription 1 Source MGI Symbol Acc MGI 103063
G01	SBM0896602	ENSMUST00000085708.2	Stat2	ENSMUSG00000040033	signal transducer and activator of transcription 2 Source MGI Symbol Acc MGI 103039
G02	SBM0821931	ENSMUST00000103114.7	Stat3	ENSMUSG0000004040	signal transducer and activator of transcription 3 Source MGI Symbol Acc MGI 103038
G03	SBM0758089	ENSMUST00000187554.1	Stat4	ENSMUSG00000062939	signal transducer and activator of transcription 4 Source MGI Symbol Acc MGI 103062
G04	SBM0789938	ENSMUST00000138083.7	Stat5a	ENSMUSG00000004043	signal transducer and activator of transcription 5A Source MGI Symbol Acc MGI 103036
G05	SBM0792638	ENSMUST00000126266.1	Stat5b	ENSMUSG00000020919	signal transducer and activator of transcription 5B Source MGI Symbol Acc MGI 103035
G06	SBM0912507	ENSMUST00000156231.1	Stat6	ENSMUSG00000002147	signal transducer and activator of transcription 6 Source MGI Symbol Acc MGI 103034
G07	SBM0999748	ENSMUST00000232661.1	Tbp	ENSMUSG00000014767	TATA box binding protein Source MGI Symbol Acc MGI 101838
G08	SBM0875642	ENSMUST00000111657.10	Tcf7l2	ENSMUSG00000024985	transcription factor 7 like 2, T cell specific, HMG box Source MGI Symbol Acc MGI 1202879
G09	SBM0747386	ENSMUST00000021787.6	Tfap2a	ENSMUSG00000021359	transcription factor AP-2, alpha Source MGI Symbol Acc MGI 104671
G10	SBM0754223	ENSMUST00000186358.5	Tgif1	ENSMUSG00000047407	TGFB-induced factor homeobox 1 Source MGI Symbol Acc MGI 1194497
G11	SBM0841427	ENSMUST00000108657.3	Trp53	ENSMUSG00000059552	transformation related protein 53 Source MGI Symbol Acc MGI 98834
G12	SBM0955085	ENSMUST00000126912.1	Yy1	ENSMUSG00000021264	YY1 transcription factor Source MGI Symbol Acc MGI 99150
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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