

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

## Mouse GPCR Signaling PathwayFinder

Cat. no. 249950 SBMM-071ZR

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	Adcy5	Adora2a	Adrb1	Adrb2	Agt	Agtr1a	Agtr1b	Agtr2	Agtrap	Akt1	Arrb1	Arrb2
B	Adgrb1	Bcl2	Bcl2l1	Calcr	Calcr1	Casr	Cd2	Ccl4	Ccnd1	Ccne1	Ccne2	Cdkn1a
C	Cdkn1b	Cflar	Col1a1	Crhr1	Crhr2	Ccn2	Cyp19a1	Drd1	Drd2	Dusp14	Edn1	Egr1
D	Elk4	Fgf2	Fos	Gatr2	Gcgr	Gnaq	Gnas	Grm1	Grm2	Grm4	Grm5	Grm7
E	Icam1	Il1b	Il1r1	Il1r2	Il2	Jun	Junb	Kcnh8	Lhgr	Lpar1	Lpar2	Max
F	Mmp9	Myc	Nos2	Oprd1	Oprk1	Pdpr1	Pik3cg	Prkca	Plgdr	Plgs2	Rgs2	Rho
G	S1pr1	S1pr2	S1pr3	Scr	Serpine1	Socs1	Tnf	Tshr	Ucp1	Vcam1	Vegfa	Ywhoz
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	SBM0964781	ENSMUST00000114913.2	Adcy5	ENSMUSG0000022840	adenylate cyclase 5 Source MGI Symbol Acc MGI 99673
A02	SBM1030748	ENSMUST00000219322.1	Adora2a	ENSMUSG0000020178	adenosine A2a receptor Source MGI Symbol Acc MGI 99402
A03	SBM1062089	ENSMUST0000038949.5	Adrb1	ENSMUSG0000035283	adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937
A04	SBM1025763	ENSMUST0000053640.4	Adrb2	ENSMUSG0000045730	adrenergic receptor, beta 2 Source MGI Symbol Acc MGI 87938
A05	SBM0838798	ENSMUST0000063278.6	Agt	ENSMUSG0000031980	angiotensinogen (serpin peptidase inhibitor, clade A, member B) Source MGI Symbol Acc MGI 87963
A06	SBM0991724	ENSMUST0000022503.1	Agtr1a	ENSMUSG0000049115	angiotensin II receptor, type 1a Source MGI Symbol Acc MGI 87964
A07	SBM0793647	ENSMUST0000068316.7	Agtr1b	ENSMUSG0000054988	angiotensin II receptor, type 1b Source MGI Symbol Acc MGI 87965
A08	SBM0960904	ENSMUST00000131150.1	Agtr2	ENSMUSG0000068122	angiotensin II receptor, type 2 Source MGI Symbol Acc MGI 87966
A09	SBM0689614	ENSMUST0000030865.8	Agtrap	ENSMUSG0000029007	angiotensin II, type I receptor-associated protein Source MGI Symbol Acc MGI 1339977
A10	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG0000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
A11	SBM0975500	ENSMUST00000162043.7	Arrb1	ENSMUSG0000018909	arrestin, beta 1 Source MGI Symbol Acc MGI 99473
A12	SBM0882396	ENSMUST00000128748.7	Arrb2	ENSMUSG0000060216	arrestin, beta 2 Source MGI Symbol Acc MGI 99474
B01	SBM1083363	ENSMUST00000185682.6	Adgrb1	ENSMUSG0000034730	adhesion G protein-coupled receptor B1 Source MGI Symbol Acc MGI 1933736
B02	SBM0876340	ENSMUST00000189999.1	Bcl2	ENSMUSG0000057329	B cell leukemia/lymphoma 2 Source MGI Symbol Acc MGI 88138
B03	SBM0751583	ENSMUST00000134357.1	Bcl2l1	ENSMUSG0000007659	BCL2-like 1 Source MGI Symbol Acc MGI 88139
B04	SBM0787713	ENSMUST00000170266.2	Calcr	ENSMUSG0000023964	calcitonin receptor Source MGI Symbol Acc MGI 101950
B05	SBM1039763	ENSMUST0000099944.3	Calcr1	ENSMUSG0000059588	calcitonin receptor-like Source MGI Symbol Acc MGI 1926944
B06	SBM0895047	ENSMUST0000063597.13	Casr	ENSMUSG0000051980	calcium-sensing receptor Source MGI Symbol Acc MGI 1351351
B07	SBM0836747	ENSMUST0000000193.5	Ccl2	ENSMUSG0000035385	chemokine (C-C motif) ligand 2 Source MGI Symbol Acc MGI 98259
B08	SBM0939661	ENSMUST0000019074.3	Ccl4	ENSMUSG0000018930	chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261
B09	SBM0706150	ENSMUST0000093962.4	Ccnd1	ENSMUSG0000070348	cyclin D1 Source MGI Symbol Acc MGI 88313
B10	SBM0866938	ENSMUST00000124979.2	Ccne1	ENSMUSG0000002068	cyclin E1 Source MGI Symbol Acc MGI 88316
B11	SBM1077466	ENSMUST00000147725.7	Ccne2	ENSMUSG0000028212	cyclin E2 Source MGI Symbol Acc MGI 1329034
B12	SBM1034022	ENSMUST0000023829.7	Cdkn1a	ENSMUSG0000023067	cyclin-dependent kinase inhibitor 1A (P21) Source MGI Symbol Acc MGI 104556
C01	SBM1006924	ENSMUST0000067327.10	Cdkn1b	ENSMUSG0000003031	cyclin-dependent kinase inhibitor 1B Source MGI Symbol Acc MGI 104565
C02	SBM0727764	ENSMUST00000124567.1	Cflar	ENSMUSG0000026031	CASP8 and FADD-like apoptosis regulator Source MGI Symbol Acc MGI 1336166
C03	SBM0911341	ENSMUST00000139974.1	Col1a1	ENSMUSG0000001506	collagen, type I, alpha 1 Source MGI Symbol Acc MGI 88467
C04	SBM0944430	ENSMUST0000093925.4	Crhr1	ENSMUSG0000018634	corticotropin releasing hormone receptor 1 Source MGI Symbol Acc MGI 88498
C05	SBM0841267	ENSMUST00000164012.2	Crhr2	ENSMUSG0000003476	corticotropin releasing hormone receptor 2 Source MGI Symbol Acc MGI 894312
C06	SBM0718058	ENSMUST00000176228.1	Ccn2	ENSMUSG0000019997	cellular communication network factor 1 Source MGI Symbol Acc MGI 95537
C07	SBM0796819	ENSMUST0000034811.7	Cyp19a1	ENSMUSG0000032274	cytochrome P450, family 19, subfamily a, polypeptide 1 Source MGI Symbol Acc MGI 88587
C08	SBM1085787	ENSMUST00000221470.1	Drd1	ENSMUSG0000021478	dopamine receptor D1 Source MGI Symbol Acc MGI 99578
C09	SBM0811566	ENSMUST0000075764.7	Drd2	ENSMUSG0000032259	dopamine receptor D2 Source MGI Symbol Acc MGI 94924
C10	SBM0955098	ENSMUST0000018792.11	Dusp14	ENSMUSG0000018648	dual specificity phosphatase 14 Source MGI Symbol Acc MGI 1927168
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0992224	021796.8	Edn1	000021367	endothelin 1 Source MGI Symbol Acc MGI 95283
C12	SBM0782056	ENSMUST00000 064795.5	Egr1	ENSMUSG00 000038418	early growth response 1 Source MGI Symbol Acc MGI 95295
D01	SBM0846878	ENSMUST00000 086556.11	Elk4	ENSMUSG00 000026436	ELK4, member of ETS oncogene family Source MGI Symbol Acc MGI 102853
D02	SBM0959713	ENSMUST00000 138563.8	Fgf2	ENSMUSG00 000037225	fibroblast growth factor 2 Source MGI Symbol Acc MGI 95516
D03	SBM0977461	ENSMUST00000 134311.1	Fos	ENSMUSG00 000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
D04	SBM1037784	ENSMUST00000 055872.2	Galr2	ENSMUSG00 000020793	galanin receptor 2 Source MGI Symbol Acc MGI 1337018
D05	SBM0812666	ENSMUST00000 026119.7	Gcgr	ENSMUSG00 000025127	glucagon receptor Source MGI Symbol Acc MGI 99572
D06	SBM1039267	ENSMUST00000 167656.1	Gnaq	ENSMUSG00 000024639	guanine nucleotide binding protein, alpha q polypeptide Source MGI Symbol Acc MGI 95776
D07	SBM0913625	ENSMUST00000 109085.7	Gnas	ENSMUSG00 000027523	GNAS (guanine nucleotide binding protein, alpha stimulating) complex locus Source MGI Symbol Acc MGI 95777
D08	SBM1018691	ENSMUST00000 044306.12	Grm1	ENSMUSG00 000019828	glutamate receptor, metabotropic 1 Source MGI Symbol Acc MGI 1351338
D09	SBM0899846	ENSMUST00000 023959.12	Grm2	ENSMUSG00 000023192	glutamate receptor, metabotropic 2 Source MGI Symbol Acc MGI 1351339
D10	SBM1039363	ENSMUST00000 146277.7	Grm4	ENSMUSG00 000063239	glutamate receptor, metabotropic 4 Source MGI Symbol Acc MGI 1351341
D11	SBM0928000	ENSMUST00000 138732.2	Grm5	ENSMUSG00 000049583	glutamate receptor, metabotropic 5 Source MGI Symbol Acc MGI 1351342
D12	SBM0686734	ENSMUST00000 174018.7	Grm7	ENSMUSG00 000056755	glutamate receptor, metabotropic 7 Source MGI Symbol Acc MGI 1351344
E01	SBM0806584	ENSMUST00000 215003.1	Icam1	ENSMUSG00 000037405	intercellular adhesion molecule 1 Source MGI Symbol Acc MGI 96392
E02	SBM0738485	ENSMUST00000 028881.13	Il1b	ENSMUSG00 000027398	interleukin 1 beta Source MGI Symbol Acc MGI 96543
E03	SBM1086348	ENSMUST00000 027241.10	Il1r1	ENSMUSG00 000026072	interleukin 1 receptor, type I Source MGI Symbol Acc MGI 96545
E04	SBM0820917	ENSMUST00000 195770.1	Il1r2	ENSMUSG00 000026073	interleukin 1 receptor, type II Source MGI Symbol Acc MGI 96546
E05	SBM0797059	ENSMUST00000 029275.5	Il2	ENSMUSG00 000027720	interleukin 2 Source MGI Symbol Acc MGI 96548
E06	SBM1045409	ENSMUST00000 107094.1	Jun	ENSMUSG00 000052684	jun proto-oncogene Source MGI Symbol Acc MGI 96646
E07	SBM0879318	ENSMUST00000 064922.6	Junb	ENSMUSG00 000052837	jun B proto-oncogene Source MGI Symbol Acc MGI 96647
E08	SBM0959553	ENSMUST00000 184279.1	Kcnh8	ENSMUSG00 000035580	potassium voltage-gated channel, subfamily H (eag-related), member 8 Source MGI Symbol Acc MGI 2445160
E09	SBM0993994	ENSMUST00000 234368.1	Lhcgr	ENSMUSG00 000024107	luteinizing hormone/choriogonadotropin receptor Source MGI Symbol Acc MGI 96783
E10	SBM1073233	ENSMUST00000 145361.1	Lpar1	ENSMUSG00 000038668	lysophosphatidic acid receptor 1 Source MGI Symbol Acc MGI 108429
E11	SBM1010059	ENSMUST00000 164890.7	Lpar2	ENSMUSG00 000031861	lysophosphatidic acid receptor 2 Source MGI Symbol Acc MGI 1858422
E12	SBM0734133	ENSMUST00000 218640.1	Max	ENSMUSG00 000059436	Max protein Source MGI Symbol Acc MGI 96921
F01	SBM1089430	ENSMUST00000 017881.2	Mmp9	ENSMUSG00 000017737	matrix metalloproteinase 9 Source MGI Symbol Acc MGI 97011
F02	SBM0987162	ENSMUST00000 159338.1	Myc	ENSMUSG00 000022346	myelocytomatosis oncogene Source MGI Symbol Acc MGI 97250
F03	SBM0835086	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
F04	SBM1023656	ENSMUST00000 056336.1	Oprd1	ENSMUSG00 000050511	opioid receptor, delta 1 Source MGI Symbol Acc MGI 97438
F05	SBM0944687	ENSMUST00000 160777.7	Oprk1	ENSMUSG00 000025905	opioid receptor, kappa 1 Source MGI Symbol Acc MGI 97439
F06	SBM0716432	ENSMUST00000 115409.8	Pdpc1	ENSMUSG00 000024122	3-phosphoinositide dependent protein kinase 1 Source MGI Symbol Acc MGI 1338068
F07	SBM0808732	ENSMUST00000 220366.1	Pik3cg	ENSMUSG00 000020573	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source MGI Symbol Acc MGI 1353576
F08	SBM0890328	ENSMUST00000 100302.3	Prkca	ENSMUSG00 000050965	protein kinase C, alpha Source MGI Symbol Acc MGI 97595
F09	SBM0802262	ENSMUST00000 095959.1	Ptgdr	ENSMUSG00 000071489	prostaglandin D receptor Source MGI Symbol Acc MGI 102966
F10	SBM0782881	ENSMUST00000 035065.8	Ptgs2	ENSMUSG00 000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1066056	ENSMUST00000134817.1	Rgs2	ENSMUSG0000026360	regulator of G-protein signaling 2 Source MGI Symbol Acc MGI 1098271
F12	SBM1049676	ENSMUST00000204711.2	Rho	ENSMUSG0000030324	rhodopsin Source MGI Symbol Acc MGI 97914
G01	SBM0772480	ENSMUST00000055676.3	S1pr1	ENSMUSG0000045092	sphingosine-1-phosphate receptor 1 Source MGI Symbol Acc MGI 1096355
G02	SBM0946722	ENSMUST00000054197.6	S1pr2	ENSMUSG0000043895	sphingosine-1-phosphate receptor 2 Source MGI Symbol Acc MGI 99569
G03	SBM0917037	ENSMUST00000087978.4	S1pr3	ENSMUSG0000067586	sphingosine-1-phosphate receptor 3 Source MGI Symbol Acc MGI 1339365
G04	SBM0886799	ENSMUST00000189037.1	Scnr	ENSMUSG0000026387	secretin receptor Source MGI Symbol Acc MGI 2441720
G05	SBM0809699	ENSMUST00000041388.10	Serpine1	ENSMUSG0000037411	serine (or cysteine) peptidase inhibitor, clade E, member 1 Source MGI Symbol Acc MGI 97608
G06	SBM0830785	ENSMUST00000229866.1	Socs1	ENSMUSG0000038037	suppressor of cytokine signaling 1 Source MGI Symbol Acc MGI 1354910
G07	SBM0788439	ENSMUST00000025263.14	Tnf	ENSMUSG0000024401	tumor necrosis factor Source MGI Symbol Acc MGI 104798
G08	SBM0929034	ENSMUST00000221216.1	Tshr	ENSMUSG0000020963	thyroid stimulating hormone receptor Source MGI Symbol Acc MGI 98849
G09	SBM1037476	ENSMUST00000034146.4	Ucp1	ENSMUSG0000031710	uncoupling protein 1 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 98894
G10	SBM1225402	ENSMUST00000029574.12	Vcam1	ENSMUSG0000027962	vascular cell adhesion molecule 1 Source MGI Symbol Acc MGI 98926
G11	SBM1079198	ENSMUST00000217017.1	Vegfa	ENSMUSG0000023951	vascular endothelial growth factor A Source MGI Symbol Acc MGI 103178
G12	SBM0889438	ENSMUST00000110361.7	Ywhaz	ENSMUSG0000022285	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide Source MGI Symbol Acc MGI 109484
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 $\mu$ 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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