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

Mouse Dopamine & Serotonin Pathway

Cat. no. 249950 SBMM-158ZR

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Adcy1	Adcy2	Adcy3	Adcy5	Adrb1	Adrb2	Grk2	Grk3	Akt1	Akt2	Akt3	Alox12
B	App	Arrb1	Arrb2	Bdnf	Cacna1a	Casp3	Cdk5	Comt	Creb1	Cyp2d22	Dbh	Ddc
C	Drd1	Drd2	Drd3	Drd4	Drd5	Dusp1	Ephb1	Fos	Gdnf	Gfap	Grk4	Grk5
D	Grk6	Gsk3a	Gsk3b	Htr1a	Htr1b	Htr1d	Htr1f	Htr2a	Htr2b	Htr2c	Htr3a	Htr3b
E	Htr4	Htr5a	Htr6	Htr7	Itpr1	Maoa	Maob	Mapk1	Nr4a1	Nr4a3	Pde10a	Pde4a
F	Pde4b	Pde4c	Pde4d	Pdyn	Pik3ca	Pik3cg	Pla2g5	Plcb1	Plcb2	Plcb3	Ppp1r1b	Prkaca
G	Ptgs2	Slc18a1	Slc18a2	Slc6a3	Slc6a4	Snca	Sncaip	Syn2	Tdo2	Th	Tph1	Tph2
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	SBM1088693	ENSMUST00000135398.1	Adcy1	ENSMUSG00000020431	adenylate cyclase 1 Source MGI Symbol Acc MGI 99677
A02	SBM0830230	ENSMUST00000022013.7	Adcy2	ENSMUSG00000021536	adenylate cyclase 2 Source MGI Symbol Acc MGI 99676
A03	SBM1091496	ENSMUST00000124505.7	Adcy3	ENSMUSG00000020654	adenylate cyclase 3 Source MGI Symbol Acc MGI 99675
A04	SBM0964781	ENSMUST00000114913.2	Adcy5	ENSMUSG00000022840	adenylate cyclase 5 Source MGI Symbol Acc MGI 99673
A05	SBM1062089	ENSMUST00000038949.5	Adrb1	ENSMUSG00000035283	adrenergic receptor, beta 1 Source MGI Symbol Acc MGI 87937
A06	SBM1025763	ENSMUST00000053640.4	Adrb2	ENSMUSG00000045730	adrenergic receptor, beta 2 Source MGI Symbol Acc MGI 87938
A07	SBM0927520	ENSMUST00000167511.2	Grk2	ENSMUSG00000024858	G protein-coupled receptor kinase 2 Source MGI Symbol Acc MGI 87940
A08	SBM0730107	ENSMUST00000199337.1	Grk3	ENSMUSG00000042249	G protein-coupled receptor kinase 3 Source MGI Symbol Acc MGI 87941
A09	SBM1020452	ENSMUST00000144550.8	Akt1	ENSMUSG00000001729	thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986
A10	SBM0882867	ENSMUST00000051356.11	Akt2	ENSMUSG00000004056	thymoma viral proto-oncogene 2 Source MGI Symbol Acc MGI 104874
A11	SBM0683049	ENSMUST00000019843.14	Akt3	ENSMUSG00000019699	thymoma viral proto-oncogene 3 Source MGI Symbol Acc MGI 1345147
A12	SBM1027043	ENSMUST00000108574.2	Alox12	ENSMUSG00000000320	arachidonate 12-lipoxygenase Source MGI Symbol Acc MGI 87998
B01	SBM0970132	ENSMUST00000226801.1	App	ENSMUSG00000022892	amyloid beta (A4) precursor protein Source MGI Symbol Acc MGI 88059
B02	SBM0975500	ENSMUST00000162043.7	Arrb1	ENSMUSG00000018909	arrestin, beta 1 Source MGI Symbol Acc MGI 99473
B03	SBM0882396	ENSMUST00000128748.7	Arrb2	ENSMUSG00000060216	arrestin, beta 2 Source MGI Symbol Acc MGI 99474
B04	SBM0985592	ENSMUST00000111042.2	Bdnf	ENSMUSG00000048482	brain derived neurotrophic factor Source MGI Symbol Acc MGI 88145
B05	SBM0750240	ENSMUST00000153691.1	Cacna1a	ENSMUSG00000034656	calcium channel, voltage-dependent, P/Q type, alpha 1A subunit Source MGI Symbol Acc MGI 109482
B06	SBM0732165	ENSMUST00000093517.6	Casp3	ENSMUSG00000031628	caspase 3 Source MGI Symbol Acc MGI 107739
B07	SBM0737657	ENSMUST00000198990.1	Cdk5	ENSMUSG00000028969	cyclin-dependent kinase 5 Source MGI Symbol Acc MGI 101765
B08	SBM0791437	ENSMUST00000000335.11	Comt	ENSMUSG00000000326	catechol-O-methyltransferase Source MGI Symbol Acc MGI 88470
B09	SBM0735214	ENSMUST00000188855.6	Creb1	ENSMUSG00000025958	cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494
B10	SBM0892868	ENSMUST00000228986.1	Cyp2d22	ENSMUSG00000061740	cytochrome P450, family 2, subfamily d, polypeptide 22 Source MGI Symbol Acc MGI 1929474
B11	SBM1077536	ENSMUST00000000910.6	Dbh	ENSMUSG00000000889	dopamine beta hydroxylase Source MGI Symbol Acc MGI 94864
B12	SBM0826148	ENSMUST00000146359.7	Ddc	ENSMUSG00000020182	dopa decarboxylase Source MGI Symbol Acc MGI 94876
C01	SBM1085787	ENSMUST00000221470.1	Drd1	ENSMUSG00000021478	dopamine receptor D1 Source MGI Symbol Acc MGI 99578
C02	SBM0811566	ENSMUST00000075764.7	Drd2	ENSMUSG00000032259	dopamine receptor D2 Source MGI Symbol Acc MGI 94924
C03	SBM0800125	ENSMUST00000023390.4	Drd3	ENSMUSG00000022705	dopamine receptor D3 Source MGI Symbol Acc MGI 94925
C04	SBM0996236	ENSMUST00000026569.5	Drd4	ENSMUSG00000025496	dopamine receptor D4 Source MGI Symbol Acc MGI 94926
C05	SBM0801237	ENSMUST00000041646.3	Drd5	ENSMUSG00000039358	dopamine receptor D5 Source MGI Symbol Acc MGI 94927
C06	SBM1019762	ENSMUST00000126178.1	Dusp1	ENSMUSG00000024190	dual specificity phosphatase 1 Source MGI Symbol Acc MGI 105120
C07	SBM0723869	ENSMUST00000217014.1	Ephb1	ENSMUSG00000032537	Eph receptor B1 Source MGI Symbol Acc MGI 1096337
C08	SBM0977461	ENSMUST00000134311.1	Fos	ENSMUSG00000021250	FBJ osteosarcoma oncogene Source MGI Symbol Acc MGI 95574
C09	SBM0745351	ENSMUST00000022744.4	Gdnf	ENSMUSG00000022144	glial cell line derived neurotrophic factor Source MGI Symbol Acc MGI 107430
C10	SBM1028741	ENSMUST00000127909.1	Gfap	ENSMUSG00000020932	glial fibrillary acidic protein Source MGI Symbol Acc MGI 95697
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0814413	074651.10	Grk4	000052783	G protein-coupled receptor kinase 4 Source MGI Symbol Acc MGI 95801
C12	SBM1049308	ENSMUST00000003313.9	Grk5	ENSMUSG00000003228	G protein-coupled receptor kinase 5 Source MGI Symbol Acc MGI 109161
D01	SBM0767307	ENSMUST00000001115.15	Grk6	ENSMUSG00000074886	G protein-coupled receptor kinase 6 Source MGI Symbol Acc MGI 1347078
D02	SBM0806019	ENSMUST00000071739.11	Gsk3a	ENSMUSG00000057177	glycogen synthase kinase 3 alpha Source MGI Symbol Acc MGI 2152453
D03	SBM0862470	ENSMUST00000132057.1	Gsk3b	ENSMUSG00000022812	glycogen synthase kinase 3 beta Source MGI Symbol Acc MGI 1861437
D04	SBM0817571	ENSMUST00000022235.5	Htr1a	ENSMUSG00000021721	5-hydroxytryptamine (serotonin) receptor 1A Source MGI Symbol Acc MGI 96273
D05	SBM0886564	ENSMUST00000051005.4	Htr1b	ENSMUSG00000049511	5-hydroxytryptamine (serotonin) receptor 1B Source MGI Symbol Acc MGI 96274
D06	SBM0853862	ENSMUST00000133818.1	Htr1d	ENSMUSG00000070687	5-hydroxytryptamine (serotonin) receptor 1D Source MGI Symbol Acc MGI 96276
D07	SBM0962447	ENSMUST00000063076.5	Htr1f	ENSMUSG00000050783	5-hydroxytryptamine (serotonin) receptor 1F Source MGI Symbol Acc MGI 99842
D08	SBM1031976	ENSMUST00000036653.4	Htr2a	ENSMUSG00000034997	5-hydroxytryptamine (serotonin) receptor 2A Source MGI Symbol Acc MGI 109521
D09	SBM0713511	ENSMUST00000155077.1	Htr2b	ENSMUSG00000026228	5-hydroxytryptamine (serotonin) receptor 2B Source MGI Symbol Acc MGI 109323
D10	SBM0688579	ENSMUST00000156697.7	Htr2c	ENSMUSG00000041380	5-hydroxytryptamine (serotonin) receptor 2C Source MGI Symbol Acc MGI 96281
D11	SBM0963266	ENSMUST00000003826.7	Htr3a	ENSMUSG00000032269	5-hydroxytryptamine (serotonin) receptor 3A Source MGI Symbol Acc MGI 96282
D12	SBM0808461	ENSMUST00000008734.4	Htr3b	ENSMUSG00000008590	5-hydroxytryptamine (serotonin) receptor 3B Source MGI Symbol Acc MGI 1861899
E01	SBM0694548	ENSMUST00000236691.1	Htr4	ENSMUSG00000026322	5 hydroxytryptamine (serotonin) receptor 4 Source MGI Symbol Acc MGI 109246
E02	SBM0808223	ENSMUST00000036227.6	Htr5a	ENSMUSG00000039106	5-hydroxytryptamine (serotonin) receptor 5A Source MGI Symbol Acc MGI 96283
E03	SBM0712290	ENSMUST00000105802.7	Htr6	ENSMUSG00000028747	5-hydroxytryptamine (serotonin) receptor 6 Source MGI Symbol Acc MGI 1196627
E04	SBM1063519	ENSMUST00000165215.7	Htr7	ENSMUSG00000024798	5-hydroxytryptamine (serotonin) receptor 7 Source MGI Symbol Acc MGI 99841
E05	SBM0795463	ENSMUST00000203638.2	Itpr1	ENSMUSG00000030102	inositol 1,4,5-trisphosphate receptor 1 Source MGI Symbol Acc MGI 96623
E06	SBM0886215	ENSMUST00000026013.5	Maoa	ENSMUSG00000025037	monoamine oxidase A Source MGI Symbol Acc MGI 96915
E07	SBM0839056	ENSMUST00000040820.12	Maob	ENSMUSG00000040147	monoamine oxidase B Source MGI Symbol Acc MGI 96916
E08	SBM0800614	ENSMUST00000231821.1	Mapk1	ENSMUSG00000063358	mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858
E09	SBM0685861	ENSMUST00000228985.1	Nr4a1	ENSMUSG00000023034	nuclear receptor subfamily 4, group A, member 1 Source MGI Symbol Acc MGI 1352454
E10	SBM0766720	ENSMUST00000030025.9	Nr4a3	ENSMUSG00000028341	nuclear receptor subfamily 4, group A, member 3 Source MGI Symbol Acc MGI 1352457
E11	SBM0897911	ENSMUST00000089085.9	Pde10a	ENSMUSG00000023868	phosphodiesterase 10A Source MGI Symbol Acc MGI 1345143
E12	SBM0719992	ENSMUST00000115458.8	Pde4a	ENSMUSG00000032177	phosphodiesterase 4A, cAMP specific Source MGI Symbol Acc MGI 99558
F01	SBM1087849	ENSMUST00000030251.12	Pde4b	ENSMUSG00000028525	phosphodiesterase 4B, cAMP specific Source MGI Symbol Acc MGI 99557
F02	SBM0817024	ENSMUST00000134693.7	Pde4c	ENSMUSG00000031842	phosphodiesterase 4C, cAMP specific Source MGI Symbol Acc MGI 99556
F03	SBM0754941	ENSMUST00000135275.7	Pde4d	ENSMUSG00000021699	phosphodiesterase 4D, cAMP specific Source MGI Symbol Acc MGI 99555
F04	SBM0795904	ENSMUST00000152113.1	Pdyn	ENSMUSG00000027400	prodynorphin Source MGI Symbol Acc MGI 97535
F05	SBM0905151	ENSMUST00000108243.7	Pik3ca	ENSMUSG00000027665	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source MGI Symbol Acc MGI 1206581
F06	SBM0808732	ENSMUST00000220366.1	Pik3cg	ENSMUSG00000020573	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source MGI Symbol Acc MGI 1353576
F07	SBM0852638	ENSMUST00000127183.7	Pla2g5	ENSMUSG00000041193	phospholipase A2, group V Source MGI Symbol Acc MGI 101899
F08	SBM0900896	ENSMUST00000129382.4	Plcb1	ENSMUSG00000051177	phospholipase C, beta 1 Source MGI Symbol Acc MGI 97613
F09	SBM0763173	ENSMUST00000102524.7	Plcb2	ENSMUSG00000040061	phospholipase C, beta 2 Source MGI Symbol Acc MGI 107465
F10	SBM0776675	ENSMUST00000237726.1	Plcb3	ENSMUSG00000024960	phospholipase C, beta 3 Source MGI Symbol Acc MGI 104778

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM0905278	ENSMUST00000137634.1	Ppp1r1b	ENSMUSG00000061718	protein phosphatase 1, regulatory inhibitor subunit 1B Source MGI Symbol Acc MGI 94860
F12	SBM0941812	ENSMUST00000211558.1	Prkaca	ENSMUSG00000005469	protein kinase, cAMP dependent, catalytic, alpha Source MGI Symbol Acc MGI 97592
G01	SBM0782881	ENSMUST00000035065.8	Ptgs2	ENSMUSG00000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
G02	SBM0868719	ENSMUST00000037478.12	Slc18a1	ENSMUSG00000036330	solute carrier family 18 (vesicular monoamine), member 1 Source MGI Symbol Acc MGI 106684
G03	SBM0732718	ENSMUST00000026084.4	Slc18a2	ENSMUSG00000025094	solute carrier family 18 (vesicular monoamine), member 2 Source MGI Symbol Acc MGI 106677
G04	SBM0786291	ENSMUST00000022100.6	Slc6a3	ENSMUSG00000021609	solute carrier family 6 (neurotransmitter transporter, dopamine), member 3 Source MGI Symbol Acc MGI 94862
G05	SBM0741428	ENSMUST00000129572.2	Slc6a4	ENSMUSG00000020838	solute carrier family 6 (neurotransmitter transporter, serotonin), member 4 Source MGI Symbol Acc MGI 96285
G06	SBM1045894	ENSMUST00000163779.7	Snca	ENSMUSG00000025889	synuclein, alpha Source MGI Symbol Acc MGI 1277151
G07	SBM0856344	ENSMUST00000178883.7	Sncaip	ENSMUSG00000024534	synuclein, alpha interacting protein (synphilin) Source MGI Symbol Acc MGI 1915097
G08	SBM0714216	ENSMUST00000203450.1	Syn2	ENSMUSG00000009394	synapsin II Source MGI Symbol Acc MGI 103020
G09	SBM1092622	ENSMUST00000137974.1	Tdo2	ENSMUSG00000028011	tryptophan 2,3-dioxygenase Source MGI Symbol Acc MGI 1928486
G10	SBM0766276	ENSMUST00000000219.9	Th	ENSMUSG00000000214	tyrosine hydroxylase Source MGI Symbol Acc MGI 98735
G11	SBM0807361	ENSMUST00000168335.2	Tph1	ENSMUSG00000040046	tryptophan hydroxylase 1 Source MGI Symbol Acc MGI 98796
G12	SBM0901528	ENSMUST00000006949.8	Tph2	ENSMUSG00000006764	tryptophan hydroxylase 2 Source MGI Symbol Acc MGI 2651811
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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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.